CANADA
DOMINION BUREAU OF STATISTICS
MINING, METALLURGICAL AND CHEMICAL BRANCH

PRELIMINARY REPORT

OF THE

MINERAL PRODUCTION OF CANADA

DURING THE CALENDAR YEAR

1924

FEBRUARY 23, 1925

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LIST OF PUBLICATIONS

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MINING, METALLURGICAL AND CHEMICAL BRANCH DOMINION BUREAU OF STATISTICS

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(1) Mineral Production (Mining and Metallurgy).

General Reports—

(a) **Annual Report of the Mineral Production of Canada.**

(b) **Preliminary Reports (semi-annual) of the Mineral Production of Canada.**

Coal—

(a) **Annual Report on Coal Statistics for Canada.**

(b) **Monthly Report on Coal Statistics for Canada.**

In addition to the foregoing reports on mineral production a series of annual bulletins is in preparation each of which will contain statistics relative to a particular metal or non-metallic mineral or to a special section of the mineral industry, and the series when complete will cover every phase of mineral production in Canada.

(2) Statistics of Manufactures, based chiefly on minerals.

Summary reports on the sections of manufactures covered by the Mining, Metallurgical and Chemical Branch are issued as follows:—

Annual—

(a) **Iron and Steel and Their Products**: Pig Iron and Ferro-Alloys—Steel and Rolled Products—Castings and Forgings including Heating and Ventilating Equipment—Agricultural Implements—Boilers and Engines—Industrial, Office and Household Machinery—Automobiles—Automobile Accessories—Bicycles—Railway Rolling Stock—Wire and Wire Goods—Sheet Metal Products—Hardware and Tools—Miscellaneous Iron and Steel Products.

(b) **Manufactures of Non-Ferrous Metals**: Aluminium Ware—Brass and Copper Products—Lead, Tin and Zinc Products—Manufactures of the Precious Metals—Electrical Apparatus and Supplies—Miscellaneous Non-Ferrous Metal Goods.

(c) **Manufactures of the Non-Metallic Minerals**: Aerated Waters—Asbestos and Allied Products—Cement Products and Sand-Lime Brick—Coke and By-Products—Glass (blown, cut, ornamental, etc.)—Illuminating and Fuel Gas—Monumental and Ornamental Stone—Petroleum Products—Miscellaneous Manufactures of the Non-Metallic Minerals including: (a) Artificial Abrasives; (b) Abrasive Products; (c) Electrodes; (d) Fuel Briquettes; (e) Gypsum Products; (f) Mica Trimming.

(d) **Chemicals and Allied Products**: Coal Tar and its Products—Acid, Alkalies, Salts and Compressed Gases—Explosives, Ammunition, Fireworks and Matches—Fertilizers—Medicinal and Pharmaceutical Preparations—Paints, Pigments and Varnishes—Soaps, Washing Compounds and Toilet Preparations—Inks, Dyes and Colours—Wood Distillates and Extracts—Miscellaneous Chemical Products including: (a) Adhesives; (b) Baking Powder; (c) Boiler Compounds; (d) Celluloid Products; (e) Flavouring Extracts; (f) Insecticides; (g) Polishes and Dressings; (h) Sweeping Compounds, etc.

Monthly—

(a) **Production of Iron and Steel in Canada.**

In addition to the foregoing printed summary reports, a series of bulletins is being prepared, each of which deals with a particular phase of manufactures.

(3) Special Reports.

Report on the Consumption of Prepared Non-Metallic Minerals in Canada.

Report on the Consumption of Mine and Mill Materials in Canada.

PREFACE.

A preliminary estimate of Canada's mineral production in 1924 issued by the Dominion Bureau of Statistics January 1, 1925 placed the aggregate value at $205,462,000. More complete information now at hand as compiled and presented in this report shows a total of $209,516,465 or two per cent above the estimate made at the beginning of the year. The present preliminary report contains the first detailed official figures available for the whole of the calendar year and supplements the bulletin issued by the Bureau early in August which gave complete statistics on the production of metals and non-metals from Canadian ores during the six months ending June 30, 1924. Comparative figures are also given for the preceding calendar year.

During the past twelve months the Bureau has issued a number of press releases each giving revised statistics of production for a particular commodity for 1923; it is proposed to continue this policy during the present year. A special report on the consumption of mine and mill materials by the Canadian mineral industries was also completed; the subject matter was prepared in pamphlet form and was also included in the final annual report of the mineral production of Canada 1923, now in press, which will be available for distribution within the next few weeks.

In the preparation of this report the work was again greatly expedited by co-operation with the Ontario Department of Mines in the use of joint schedules for mine and smelter reports. The monthly statistics on coal were also collected jointly with four of the coal-producing provinces, namely; Nova Scotia, New Brunswick, Saskatchewan and Alberta.

The cordial thanks of the Bureau are tendered to the mine and smelter operators, and to the Dominion Department of Mines for assistance given and information made available. The railway and other transportation companies, as well as smelter operators outside of Canada have also furnished data, the receipt of which is gratefully acknowledged.

The report has been prepared under the direction of Mr. S. J. Cook, B.A., A.I.C., F.C.I.C., Chief of the Mining, Metallurgical and Chemical Branch of the Bureau. Mr. W. H. Losee, B.Sc., supervised the work on the sections dealing with metals and metalliferous ores, and Mr. B. R. Hayden compiled the data on the non-metalliferous products.

R. H. COATS,
Dominion Statistician.

DOMINION BUREAU OF STATISTICS,
February 23, 1925.

Quantities and Values of Mineral Products from Canadian Sources, 1923 and 1924

		1923		1924		Increase (+) or Decrease (−)	
		Quantity	Value	Quantity	Value	Quantity	Value
			$		$		
Metallic							
Arsenic	Lb.	6,421,587	626,815	4,672,339	352,354	− 27·3	− 43·8
Bismuth	Lb.	.....	.....	12,863	16,079	.....	.....
Chromite	Tons	3,558	52,650	.....	.....	.....	.....
Cobalt	Lb.	888,061	2,530,974	960,266	1,678,124	+ 8·1	− 33·7
Copper	"	86,881,537	12,529,186	106,350,730	13,851,118	+ 22·4	+ 10·5
Gold	Fine ozs.	1,233,341	25,495,421	1,516,360	31,345,941	+ 22·9	+ 22·9
Iron, pig, from Canadian ore	Tons	20,739	432,298	3,710	92,750	− 82·2	− 78·6
Iron ore sold for export	"	5,670	20,279	1,408	3,771	− 75·2	− 81·5
Lead	Lb.	111,234,466	7,985,522	177,756,076	14,405,353	+ 59·8	+ 80·3
Manganese	Tons	200	1,400	584	4,088	+192·0	+192·0
Molybdenite	"	−	−	6	6,606	−	−
Nickel	Lb.	62,453,843	18,332,077	69,586,759	19,484,292	+ 11·4	+ 6·2
Palladium	Fine ozs.	1,732	138,560	8,923	811,993	+415·1	+486·0
Platinum	"	1,217	141,826	9,186	1,091,427	+654·8	+669·5
Rhodium, Osmium, Iridium, Ruthenium	"	304	45,000	593	51,120	+ 95·0	+ 13·6
Silver	"	18,601,744	12,067,509	20,243,846	13,519,043	+ 8·8	+ 12·0
Zinc	Lb.	60,416,240	3,991,701	98,788,667	6,267,152	+ 63·5	+ 57·0
Total		−	**84,391,218**	−	**102,981,211**	−	**+ 22·0**
Non-Metallic							
Actinolite	Tons	53	583	90	1,225	+ 69·8	+110·1
Asbestos	"	231,482	7,522,506	220,005	6,590,251	− 5·2	− 12·4
Barytes	"	409	8,548	91	2,098	− 77·8	− 75·5
Coal	"	16,990,571	72,058,986	13,617,313	54,885,239	− 19·9	− 23·9
Corundum	"	−	−	2	251	−	−
Feldspar	"	29,225	237,601	39,776	299,641	+ 36·1	+ 26·1
Fluorspar	"	139	1,732	5	100	− 96·5	− 94·3
Garnets	"	1,250	100,000	−	−	−	−
Graphite	"	1,113	67,873	1,337	76,117	+ 20·1	+ 12·1
Grindstones	"	2,014	80,083	2,121	78,266	+ 5·3	− 2·3
Gypsum	"	578,301	2,243,100	645,020	2,198,598	+ 11·5	− 2·0
Magnesite	"	4,801	134,382	3,873	92,352	− 19·4	− 31·3
Magnesium Sulphate	"	121	6,580	−	−	−	−
Mica	"	3,525	326,974	3,317	286,645	− 6·0	− 12·4
Mineral water	Gals.	232,451	16,455	228,298	15,221	− 1·8	− 7·5
Natro-alunite	Tons	15	750	−	−	−	−
Natural gas	M. cu. ft	15,960,583	5,884,618	15,122,684	6,178,435	− 5·3	+ 4·9
Iron oxides	Tons	10,474	129,636	7,357	91,366	− 29·5	− 29·6
Petroleum, crude	Brls.	170,169	522,018	160,830	470,985	− 5·5	− 9·8
Phosphate	Tons	30	600	−	−	−	−
Pyrites	"	28,591	113,020	23,571	102,688	− 17·6	− 9·2
Quartz	"	264,076	599,250	154,708	327,990	− 41·5	− 45·3
Salt	"	202,397	1,713,516	205,780	1,359,616	+ 1·6	− 20·7
Sodium carbonate	"	265	3,975	513	10,260	+ 93·5	+158·1
Sodium sulphate	"	733	10,189	118	1,179	− 84·0	− 88·5
Talc and soapstone	"	10,366	150,507	11,209	152,032	+ 8·1	+ 1·0
Tripolite	"	130	3,250	36	1,080	− 72·4	− 66·8
Volcanic ash	"	−	−	200	900	−	−
Total		−	**91,936,732**	−	**73,222,535**	−	**− 20·4**
Structural Materials and Clay Products							
Cement, Portland	Brls.	7,543,589	15,064,661	7,499,372	13,445,156	− 0·6	− 10·8
Clay products—							
Brick, common	No.	250,564,527	3,884,474				
" pressed	"	73,400,274	1,461,483				
" moulded and ornamental	"	64,682,454	1,355,360	294,096,025	5,429,209	−	−
Fire brick	"	6,122,055	295,037				
Fireclay	Tons	2,685	24,158	202	1,672	− 92·5	− 93·1
Fireclay blocks	"	−	81,345	−	77,107	−	− 5·3
Hollow building brick	No.	7,720,476	620,329	−	925,571	−	− 8·1
Fireproofing and hollow porous blocks	"	−	379,805				
Kaolin	Tons	163	2,369	−	−	−	−
Pottery from domestic clay	"	−	229,547	−	242,481	−	+ 5·6
Sewer pipe	Tons	70,252	1,616,324	71,303	1,575,034	+ 1·4	− 2·6
Terra-cotta and tile, other than drain	"	−	209,471	−	18,356	−	− 91·3
Tile, drain	No.	10,598,801	323,314	12,685,092	358,142	+ 19·6	+ 10·7
Lime	Bush.	10,035,319	3,266,608	9,213,456	3,062,450	− 8·2	− 6·3
Sand and gravel	Tons	12,752,515	3,016,518	11,793,098	2,535,613	− 7·6	− 16·0
Slate	"	1,836	17,289	−	−	−	−
Stone	"	4,111,334	5,903,289	4,198,318	5,641,928	+ 2·1	− 4·5
Total		−	**37,751,381**	−	**33,312,719**	−	**− 11·8**
Grand Total		−	**214,079,331**	−	**209,516,465**	−	**− 2·2**

DOMINION BUREAU OF STATISTICS

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PRELIMINARY REPORT

OF THE

MINERAL PRODUCTION OF CANADA

DURING THE CALENDAR YEAR, 1924

General Review.—Canada's mineral industry in 1924 yielded products valued in the aggregate at $209,516,465, a total which has only been exceeded in three previous years; in 1923, when the output was valued at $214,079,331; in 1920, when the peak of $227,859,665 was reached; and in 1918, when the total value of $211,301,897 was recorded. Metal mining in Canada during 1924 showed an output not previously equalled in time of peace. In the three war years 1916 to 1918, the metallic mineral production of Canada was valued in excess of 100 million dollars, but during the years before and since the highest metallic output recorded was $77,999,630 in 1920. Primary metals produced from Canadian ores during 1924 reached a total value of 102·98 million dollars, an advance of 18·59 million dollars over the total for the preceding year. Non-metallic minerals and structural materials on the other hand showed lower aggregate values than in the preceding year. Most of the non-metals showed only slight recessions from the totals for 1923 and one or two, notably gypsum and natural gas, showed improved figures; unfortunately, however, the continued labour difficulties in the coal fields so reduced production that the total value of non-metallic minerals including coal, dropped to 73·22 million dollars from a total of 91·93 million dollars in 1923. Structural materials and clay products following the trend of building operations showed lessened production; the aggregate value of the output of these materials was 33·31 million dollars as compared with 37·75 million dollars in 1923. The production in each of the past ten years is shown in the following table:

Values of Metallic and Non-Metallic Production, 1915-1924

Year	Metallic	Fuels and other non-metallics	Structural materials and clay products	Total
	$	$	$	$
1915	75,814,841	43,373,571	17,920,750	137,109,171
1916	106,319,365	53,414,983	17,467,186	177,201,534
1917	106,455,147	63,354,363	19,837,311	189,646,821
1918	114,549,152	77,621,946	19,129,799	211,301,897
1919	73,202,795	76,002,087	27,421,510	176,686,390
1920	77,999,630	108,027,947	41,892,088	227,859,665
1921	49,343,232	87,842,682	34,737,428	171,923,342
1922	62,120,291	82,642,210	39,534,741	184,297,242
1923	84,391,218	91,936,732	37,751,318	214,079,331
1924	102,981,211	73,222,535	33,312,719	209,516,465

Outstanding among the metals the production of gold computed at 1,516,360 fine ounces and valued at $31,345,941 led the way; Ontario mines alone showed an increase of 270,325 ounces to a total of 1,242,029 fine ounces worth $25,675,017 as against 971,704 ounces produced in 1923 valued at $20,086,904.

Silver advanced 1,642,102 ounces to 20,243,846 fine ounces valued at $13,519,043. Silver from the Cobalt area including the metal produced in the reduction works at Cobalt and at the south Ontario smelters as well as the silver contained in cobalt-bearing ores exported, made up slightly more than half the total. Practically all the rest was recovered from British Columbia ores treated at Trail or in United States smelters. The continued success of the South Lorrain silver mines in Ontario and the production from such properties as the Premier silver mine in the Portland Canal area in British Columbia were important factors in building up the output of silver during the year.

Two companies, the International Nickel Company and the Mond Nickel Company produced nickel-copper ores throughout the year, and operated their smelters in the Sudbury area. The British America Nickel Corporation was forced into liquidation in July and operations at their mine, smelter and refinery were discontinued. In spite of this loss the output of nickel determined as the nickel content of matte made in the Sudbury smelters together with small quantities contained in south Ontario smelter residues exported advanced 7·13 million pounds to 69,586,759 pounds which valued at the average New York market price of 28 cents for refined nickel would be worth $19,484,292. Possibly, sales of refined nickel from the Canadian refineries would be a better measure of nickel production and particularly of the nickel output value, but it has been customary in past years to quote as the production of nickel the nickel content of smelter matte produced during the year together with the comparatively small amounts of nickel contained in products from the south Ontario smelters, and for convenience the same method has been retained in this preliminary report.

Copper contained in matte produced constituted about one-third of the total production during the year; the output from the Granby smelter contributed about another third, and the balance was obtained from British Columbia copper ores, and pyritic ores from Quebec treated in United States smelters. The output for the year as thus computed was 106,350,730 pounds which, valued at the average prevailing price for copper, would be worth $13,851,118. This was an advance of 22·4 per cent above the 86,881,537 pounds in 1923.

Progress in the production of lead at Trail continued unimpeded during the year, and the new high record established in 1923 yielded place to the 1924 output. Including the lead contained in Yukon ores exported, and the lead obtained from Ontario ores (mostly from Galetta), the total lead produced from Canadian ores in 1924 was 177,756,076 pounds. Valued at 8·104 cents per pound, the average Montreal quotation for the year, the output was worth $14,405,353.

Zinc production reached a new level of 98,788,667 pounds including 54·88 million pounds refined at Trail and 43·90 million pounds estimated as recoverable from concentrates exported to Belgium and the United States. In 1923, the production of refined zinc at Trail amounted to 60 million pounds, but in that year no zinc concentrates were exported for treatment.

Sales of cobalt and its products in the form of metal, oxide, and salts and in residues exported comprised 960,266 pounds of contained metal, for which the producers received $1,678,124.

Readers of this report will note a slight change in the method of computing cobalt production this year. It was suggested to the Bureau that the previous practice of computing the value of the cobalt contained in smelter products made during the year, at the average prevailing price for the metal in a recognized market, did not provide as true a presentation of the cobalt situation as the procedure followed this year, so the change was made. The cobalt content of smelter products, including the metallic cobalt content of all oxides made and the cobalt contained in speiss and residues exported was 752,728 pounds in 1924 as compared with 888,061 pounds in the preceding year. This figure for production was used in the 1923 report, the value being computed on the basis of the average New York price for cobalt metal during the year.

Coal, constituting the most important item in the non-metallic field, showed a disappointing drop in 1924 of 3·38 million tons and 17·17 million dollars from the quantity and value of the output in the preceding year; the total production amounted to 13·61 million tons valued at $54,885,239. In spite of a loss of 1,040,409 tons as compared with the tonnage for 1923 Nova Scotia, with an output of 5,557,429 tons recovered the premier position among the coal-producing provinces while Alberta, which in 1923 produced 6,854,397 tons of coal, reported an output of 5,175,226 tons in 1924. British Columbia, third among the coal-producers in point of output tonnage but among the leaders in the export of coal, more nearly maintained its position in this field, producing 2,190,714 tons in 1924 as compared with 2,823,306 tons in 1923.

In the asbestos industry, shipments were somewhat less than in 1923 amounting in all to 220,005 tons valued at $6,590,251; the tonnage exported was also below the total for the previous year. Production by some companies was maintained at or above 1923 levels but the value of sales, due to the lower prices prevailing throughout the year did not show the same strength.

The production of natural gas showed a slight gain both in quantity and value, sales reaching a total of $6,178,435 as compared with $5,884,618 in 1923. Progress in the gypsum industry noted in 1923 continued throughout 1924, and sales increased in quantity to a total of 645,020 tons; lowered unit values, however reduced the aggregate value of sales to $2,198,598. The quantity of salt sold was greater in 1924 than in the preceding year, but the reported value of sales was slightly less; since, however, the salt industry is one of the most stable of the mineral industries, production does not vary much from year to year. Other non-metallic minerals except structural materials and clay products held their standing fairly well.

Cement, lime, brick, stone, sand and gravel were all slightly below the totals for 1923. Cement sales while about equal in quantity to 1923, dropped 1·63 million dollars in value to $13,445,156; lime sales were a quarter of a million dollars lower at $3,062,450; clay products sales totalled $8,627,572 as against $10,483,016 in 1923; stone, sand and gravel sales were valued at $8,177,541, as compared with $8,937,096 in 1923. Following a conference with the executive of the Canadian National Clay Products Association and representatives of the Ontario and Dominion Departments of Mines, the Bureau classification of clay products was modified and very considerably improved. Comparison of 1924 data compiled on the new plan with the figures for 1923 output can only be made in the aggregate but the advantage gained in the revision of the classes more than offsets the slight inconvenience occasioned by the change.

Production by Provinces.—Ontario was again the principal mineral-producing province of Canada in 1924, the value of its output being determined at $85,041,268 or 40·59 per cent of the Dominion total. British Columbia came second with a mineral production valued at $51,877,724, or 24·77 per cent of the total for Canada. Nova Scotia contributed $24,916,320 or 11·90 per cent of the production; Alberta's output was valued at $22,749,662 representing 10·86 per cent; Quebec's minerals were valued at $18,722,332 or 8·94 per cent; and New Brunswick, Manitoba, Yukon and Saskatchewan followed in the order named.

Exports of arsenical gold concentrates from Nova Scotia provided the principal item of interest in the mineral production of that province. Old tailing dumps were worked over and shipments were made to Belgium where the arsenic and gold values were recovered. Gypsum sales, too, advanced sharply over the totals for 1923, the increase in quantity amounting to 98,701 tons to a total of 440,486 tons having a selling value of $904,985. There was the customary production of salt from the Malagash mine, and the output of clay products and building stone, while less than in 1923, was fairly well maintained. The coal mines showed a loss in tonnage of more than a million tons, the total production for the year being determined at 5,557,429 tons valued at $23,380,810 as compared with 6,597,838 tons produced in 1923 at a value of $28,170,458.

The coal output from New Brunswick mines declined slightly from the totals for 1923, but the production of the other principal non-metallic minerals including natural gas, gypsum and building materials was well maintained.

In Quebec, the promising development in the Rouyn gold area was the most outstanding feature of the mineral production records. Several well-known operators tested different outcrops and the development work done led to important business transfers. Sales of asbestos, while fairly well maintained with large quantities going to the United States and to European points, did not come up to 1923 totals either in tonnage or value. A new mill was built, however, and the outlook at the close of the year seemed more hopeful.

Mining in Ontario showed greater prosperity than in any other province. Here, there was no great off-setting influence such as the coal-mining industry provided in the east and west. Metal mining flourished and the output of gold reached a new high level. Production and development in the South Lorrain silver mines continued to be a satisfactory feature. In the nickel and copper industries the most notable event was the assignment of the British America Nickel Corporation in July, but in spite of this loss, the industry as a whole showed a greater production than in the previous year. An added feature of the year's record was the shipment of asbestos from a deposit near MacKay Lake in Deloro Township. There was a slight loss in the value of structural materials produced including cement, brick and tile, lime, stone, sand and gravel, although some of the larger brick manufacturers showed an increased output for the year.

Continued development of the gold fields in northern Manitoba, where two or three gold mines are approaching the production stage, was the principal item of interest to students of the mineral industry in this province. The final development of the immense copper deposits of the Flin Flon still awaits the erection of a smelter and the provision of adequate transportation facilities.

Saskatchewan coal output increased 39,000 tons to 477,191 tons valued at $883,399 as compared with 438,100 tons produced in 1923 with a selling value of $858,448. Interest also continued in the development of the sodium sulphate deposits. Production of clay products was considered satisfactory and shipments of clays to Alberta for manufacturing purposes was continued throughout the year.

Alberta's coal output was the most regrettable feature of the year's mining record. In the crude petroleum and natural gas industries, drilling of new wells marked the continuance of the search for additional supplies of oil and gas. Some work was done on the bituminous sands in the northern part of the province, with a view to their commercial utilization. Brick and tile, pottery, and other clay products were made throughout the year, and in comparison with 1923 data, sales of these products were very creditable.

British Columbia experienced the most successful year in all branches of mining, except in coal. Many new mines were opened up and several well-known properties re-appeared on the shipping list to the Trail smelter, where the tonnage of ores received was greatly in excess of the quantities received during 1923. The copper smelting department was re-opened in May thus providing an outlet for the copper ores from the Rossland mines. The lead department increased its output substantially; but zinc was slightly lower than in 1923. Exports of zinc concentrates, however, raised the total production figure for the year to a new high level. The advance in the prices of lead and zinc helped to augment the output values. A new concentrator at the Britannia mine was tuned in during 1923, and as a result heavy shipments of concentrates were sent forward to Tacoma. The Granby copper smelter was operated throughout the year and Premier silver mine, the noted property in the Portland Canal area, further increased its output of silver and gold.

Employment.—Returns on employment statistics received from mining companies showed a decline of about one per cent in the average number employed throughout the year, as against an advance of 6 per cent in 1923 over the totals for 1922. But in spite of the fact that the general employment situation in the mining industry showed such a slight variation in 1924 as compared with 1923 there were quite wide fluctuations within the several component groups. Employment in the metal mining industries increased gradually until August; during the remaining months of the year the number employed was somewhat below the totals for the earlier months. The average for the year, however, showed a very considerable improvement over the figures for 1923. With employment in January, 1920 as a base of 100, the index for the metal mining industry in Canada was 148·8 in 1924 as against 123·5 in the preceding year. The non-metal mines showed a better trend in that the employment towards the close of the year was maintained close to the peak established during the summer months. On the basis noted above the index for employment in the non-metal mining group was 93·4 in 1924 as compared with 98·2 in 1923, a loss of about 5 per cent. The clay, glass and stone group of industries showed a distinct upward trend for the summer months; the average index of employment for the year was 86·6 a drop of 2 points from the average for 1923. The foregoing data were compiled from monthly returns supplied by approximately 200 firms employing about 48,000 hands.

Prices.—An interesting situation is reflected in the price indexes compiled by the Interna[l] Trade Branch of the Bureau of Statistics. Taking the average price for 1913 as a base of 100, the index for non-ferrous metals stood at 94·5 in January, 96·2 in February, 98·1 in March. During the next four months it hovered between 93·1 and 94·7 and then rose in August to 96·5 and in December to 99·8. That is to say, the average prices of non-ferrous metals in Canada during 1924 were from 3 to 4 per cent lower than the prices prevailing for these commodities in 1913. On the other hand, the index for non-metallic minerals was approximately 85 per cent in excess of the 1913 average but during the closing months of the year there was an appreciable drop in the index number for these commodities. The non-metallic group includes such materials as coal, gas, lime, brick, stone, sulphur, etc.

Iron and steel prices declined more than those for other mineral products. From 168·5 in January, the index dropped consistently each month during the year until it stood at 155·2 in November. Lowered prices of iron and steel and the decreased production of these commodities were the statistical marks of a very considerable depression.

Summary.—Summing up, then, the outlook for the mineral industry in Canada must be considered encouraging in spite of the decline in the total value of the output for the year. Prosperity in the metal mining field gave promise of much greater activity in the immediate future. Delayed building programs throughout Canada restricted the output of structural materials and clay products and lessened the immediate demand for other commodities. Nevertheless, the mineral industry of Canada, representing a capital investment of about half-a-billion dollars and employing upwards of 60,000 hands, yields place only to agriculture and forest production among the primary industries. It is a basic industry with a long and creditable production record. The value of the output per capita has risen from $2.23 in 1886 to a maximum of $26 40 in 1920 and the value of production has grown in the same years from 10 million dollars to a high point of 228 million dollars. The fact that every province contributes annually to the output serves but to emphasize the variety and wide distribution of Canada's mineral products, and, measured by the record of the past, the mineral industry gives promise of a much enhanced development in the future.

Method of Computing Values.—For statistical and comparative purposes it has always been customary to determine the values of the metals on the basis of the quantities of metals recovered from Canadian ores smelted during the year either in Canada or abroad and to compute the value of this production in each case at the average price of the refined metal in a recognized market. Arsenic, chromite and manganese, formerly reported under non-metallics, have been transferred to the metallics' section; production of these commodities has been determined as in previous reports, i.e., the quantity given represents the total sales and the value shown is the income from these sales. A change has been made in the method of computing cobalt production. Previous reports have shown as cobalt production the sum of cobalt contained in oxides precipitated in the smelters, and the cobalt content of ores, speiss and residues exported. The total production as thus computed was valued at the average New York price for metallic cobalt during the year. In this report the quantity given for cobalt represents the cobalt content of smelter products sold during the year with the net income to the smelters from such sales. Except for this change the method followed in this report corresponds exactly with that used in previous years. Quantities and values for non-metallic minerals (except coal), and structural materials and clay products represent sales in all cases. Coal data on the other hand show the quantity and value of the output during the year.

The table of metal prices shows the market quotations used in computing values in this report.

EXCHANGE TABLE

Showing the amount paid in Canadian dollars for one United States dollar by months, 1920-1924

Month	1920	1921	1922	1923	1924
	$	$	$	$	$
January	1·1056	1·1437	1·0553	1·0067	1·0275
February	1·1497	1·1362	1·0351	1·0119	1·0322
March	1·1178	1·1337	1·0297	1·0208	1·0294
April	1·1112	1·1216	1·0208	1·0203	1·0184
May	1·1134	1·1164	1·0125	1·0222	1·0166
June	1·1381	1·1294	1·0138	1·0231	1·0141
July	1·1134	1·1328	1·0091	1·0263	1·0064
August	1·1275	1·1168	1·0023	1·0244	1·0011
September	1·1075	1·1106	·9998	1·0233	1·0078
October	1·1016	1·0931	1·0011	1·0156	1·0016
November	1·2131	1·0904	·9998	1·0181	1·0000
December	1·1643	1·0687	·9966	1·0239	1·0015
Average	**1·1227**	**1·1161**	**1·0145**	**1·0197**	**1·0131**

Metal Prices, 1919 to 1924

—	Market	—	1919	1920	1921	1922	1923	1924
			$	$	$	$	$	$
Antimony (ordinaries)	New York	Pound	0·08190	0·08490	0·04957	0·05471	0·07897	0·10836
Arsenic, white	"	"	0·10	0·11	0·08850	0·08500	0·12050	0·09636
Cobalt	"	"	2·50	2·50	3·00	3·25	2·85	2·75
Cobalt oxide	" *	"	1·65	–	–	2·00	2·10	2·10
Copper	"	"	0·18691	0·17456	0·12502	0·13382	0·14421	0·13024
Copper	Montreal	"	–	–	–	–	0·16607	0·15155
Lead	New York	"	0·05759	0·07957	0·04545	0·05734	0·07267	0·08097
"	Montreal*	"	0·06966	0·08940	0·05742	0·06219	0·07179	0·08104
"	Toronto	"	–	–	–	–	0·07257	0·08118
Nickel	New York*	"	0·45	0·45	0·35	0·35	0·29	0·28
Platinum	" *	Ounce	114·61	110·9	75·033	97·618	116·537	118·817
Silver	" *	"	1·11122	1·009	0·62654	0·67528	0·64873	0·66781
Tin	"	Pound	0·63328	0·48273	0·28576	0·31831	0·41799	0·49674
Zinc	St. Louis*	"	0·06088	0·07671	0·04655	0·05716	0·06607	0·06344
"	Montreal	"	–	–	–	–	0·08267	0·07873

*Quotations used in this report in computing value of mineral production.

Mineral Production of Canada by Provinces, 1922, 1923 and 1924

—	1922		1923		1924	
	Value of production	Per cent of total	Value of production	Per cent of total	Value of production	Per cent of total
	$		$		$	
Nova Scotia	25,923,499	14·12	29,648,893	13·85	24,916,320	11·90
New Brunswick	2,263,692	1·23	2,462,457	1·15	2,049,106	0·97
Quebec	17,647,939	9·57	20,308,763	9·49	18,722,332	8·94
Ontario	65,866,029	35·74	80,825,851	37·76	85,041,268	40·59
Manitoba	2,258,942	1·23	1,768,037	0·83	1,569,571	0·74
Saskatchewan	1,255,470	0·67	1,047,583	0·49	1,052,013	0·50
Alberta	27,872,136	15·13	31,287,536	14·60	22,749,662	10·86
British Columbia	39,423,002	21·39	43,757,388	20·44	51,877,724	24·77
Yukon	1,785,573	0·92	2,972,823	1·39	1,538,469	0·73
Total	**184,297,242**	**100·00**	**214,079,331**	**100·00**	**209,516,465**	**100·00**

Value of Mineral Production in Canada, by Provinces, 1924

—	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon
	$	$	$	$	$	$	$	$	$
METALLIC									
Arsenic	15,244	–	–	317,342	–	–	–	19,768	–
Bismuth	–	–	–	16,079	–	–	–	–	–
Cobalt	–	–	–	1,678,124	–	–	–	–	–
Copper	–	–	477,405	4,832,471	–	–	–	8,541,249	–
Gold	21,623	–	19,452	25,675,017	17,076	–	–	4,890,709	722,005
Iron, pig from Canadian ore	–	–	–	92,400	–	–	–	350	–
Iron ore sold for export	–	–	3,771	–	–	–	–	–	–
Lead	–	–	82,903	411,236	–	–	–	13,666,308	244,906
Manganese	–	4,088	–	–	–	–	–	–	–
Molybdenite	–	–	6,606	–	–	–	–	–	–
Nickel	–	–	–	19,484,292	–	–	–	–	–
Palladium	–	–	–	811,993	–	–	–	–	–
Platinum	–	–	–	1,090,858	–	–	–	569	–
Rhodium, Osmium, Iridium, Ruthenium	–	–	–	51,120	–	–	–	–	–
Silver	–	–	58,907	7,538,661	69	–	–	5,358,113	563,293
Zinc	–	–	184,156	–	–	–	–	6,082,990	–
Total	**36,867**	**4,088**	**833,200**	**61,999,593**	**17,144**	**–**	**–**	**38,569,115**	**1,530,204**
NON-METALLIC									
Actinolite	–	–	–	1,225	–	–	–	–	–
Asbestos	–	–	6,498,351	91,900	–	–	–	–	–
Barytes	2,098	–	–	–	–	–	–	–	–
Coal	23,380,810	924,196	–	–	–	883,399	10,101,209	10,587,360	8,265
Corundum	–	–	–	251	–	–	–	–	–
Feldspar	–	–	158,070	140,671	–	–	–	–	–
Fluorspar	–	–	–	100	–	–	–	–	–
Graphite	–	–	3,275	72,842	–	–	–	–	–
Grindstones	7,350	70,916	–	–	–	–	–	–	–
Gypsum	904,985	476,804	–	467,097	348,212	–	–	1,500	–
Magnesite	–	–	92,352	–	–	–	–	–	–
Mica	–	–	119,038	166,707	–	–	–	–	–
Mineral water	–	–	2,000	13,221	–	–	–	–	–
Natural gas	–	113,577	–	4,214,798	60	–	1,850,000	–	–
Iron oxides	–	–	88,540	–	–	–	–	2,820	–
Petroleum, crude	–	21,313	–	441,495	–	–	8,177	–	–
Pyrites	–	–	16,406	44,542	–	–	–	41,740	–
Quartz	–	–	86,816	194,174	–	–	–	47,000	–
Salt	37,469	–	–	1,322,147	–	–	–	–	–
Sodium carbonate	–	–	–	–	–	–	–	10,260	–
Sodium sulphate	–	–	–	–	–	1,179	–	–	–
Talc	–	–	21,455	130,577	–	–	–	–	–
Tripolite	1,080	–	–	–	–	–	–	–	–
Volcanic ash	–	–	–	–	–	900	–	–	–
Total	**24,333,792**	**1,606,806**	**7,088,103**	**7,301,747**	**348,272**	**885,478**	**20,959,386**	**10,690,686**	**8,265**
STRUCTURAL MATERIALS AND CLAY PRODUCTS									
Cement, Portland	–	–	4,706,059	5,668,671	746,750	–	*	1,240,331	–
Clay products	(a)355,702	78,988	2,401,607	4,553,857	98,250	109,994	539,581	489,503	–
Lime	–	108,890	651,156	1,758,931	136,518	–	36,126	370,829	–
Sand and gravel	60,084	87,341	216,623	1,527,925	104,547	56,541	(b)1,195,252	279,645	–
Stone	129,875	162,993	2,734,594	2,230,541	117,990	–	19,317	246,615	–
Total	**545,661**	**438,212**	**10,801,029**	**15,739,928**	**1,204,155**	**166,535**	**1,790,276**	**2,626,923**	**–**
Grand Total	**24,916,320**	**2,049,106**	**18,722,332**	**85,041,268**	**1,569,571**	**1,052,013**	**22,749,662**	**51,877,734**	**1,538,469**

* Included with item, "Sand and Gravel".
(a) Includes production, $3,340 from Prince Edward Island.
(b) Includes cement.

METALLICS

Antimony

No production of antimony has been reported for the year 1924 but ores of antimony are known to occur in the provinces of Nova Scotia, New Brunswick, Quebec, British Columbia and in the Yukon Territory.

Arsenic

Arsenic production from Canadian ores amounted to 4,672,339 pounds in 1924, and included sales of white arsenic amounting to 3,596,165 pounds and export shipments of concentrates containing 1,076,174 pounds of arsenic (computed as arsenious acid or white arsenic). The total value of the 1924 production was $352,354 as compared with $626,815 for 6,421,587 pounds sold in 1923. Owing to the fact that the boll weevil was not so active in the southern cotton states last season as in previous years, the large stocks of calcium arsenate made in anticipation of a heavy demand were not required. For this reason the price of arsenic receded from 13·5 cents per pound in January, 1924, to 6·75 cents per pound at the close of the year, when considerable stocks were being held for higher prices.

Arsenic is made in Canada by the south Ontario smelters as a by-product of the ores from the Cobalt district. It is also produced in British Columbia at the Nickel Plate Mine where it occurs with gold in mispickel ore. The ore is concentrated and shipped to the smelter at Tacoma, Washington, for the recovery of the arsenic and gold values. Arsenic is also produced in Nova Scotia; so far the ores have been concentrated and exported to Europe for treatment. Activity in the arsenic market in the last two years has aroused much interest in the development of new arsenic mines but the present price recession has had a quieting effect.

Canada's Production, Imports and Exports of Arsenic, 1923 and 1924

	1923		1924	
	Quantity	Value	Quantity	Value
		$		$
PRODUCTION—				
From arsenical concentrates Lb.	1,262,970	44,030	1,076,174	43,246
White arsenic "	5,158,617	582,785	3,596,165	309,108
Total	**6,421,587**	**626,815**	**4,672,339**	**352,354**
IMPORTS—				
White arsenic Lb.	457,522	66,280	3,105	319
Sulphide of arsenic "	7,339	1,244	14,387	2,008
Arseniate of soda "	4,940	475	1,687	130
EXPORTS—				
White arsenic in arsenical concentrates Lb.	1,176,000	25,003	1,090,000	28,360
Arsenic n.o.p. "	3,128,000	348,646	2,608,000	227,331

Bismuth

Bismuth is a new item in Canada's mineral production records. In the treatment of silver-cobalt ores, small quantities of bismuth are accumulated in a bullion with lead and silver. While the percentage of bismuth in the material treated is small, it has been found profitable to build up reserves of this bullion until a saleable product is obtained.

In 1924 sales of bismuth in this form amounted to 12,863 pounds valued at $16,079.

Chromite

Chromite is known to occur in the provinces of Quebec and British Columbia. During the war a considerable amount of chromite ore was mined in Quebec. Some shipments were exported in 1923 but no production was reported in 1924.

Cobalt

Canada still maintains her position as the main producer of the world's cobalt. Large deposits are known to occur in South Africa but so far production from this field has not affected the market for Canada's product.

Production in 1924, computed as the cobalt content of cobalt metal, cobalt oxide and cobalt salts speiss and residues marketed during the year amounted to 960,266 pounds, netting the producers $1,678,124. As stated in the general review readers of this report will note a slight change in the method of computing cobalt production this year. It was suggested to the Bureau that the previous practice of computing the value of the cobalt contained in smelter products made during the year, at the average prevailing price for the metal in a recognized market, did not provide as true a presentation of the cobalt situation as the procedure followed this year, so the change was made. The cobalt content of smelter products, including the metallic cobalt content of all oxides made and the residues exported was 752,728 pounds in 1924 as compared with 888,061 pounds in thepreceding year. This figure for production was used in the 1923 report, the value being computed on the basis of the average New York price for cobalt metal during the year.

Imports into Canada and Exports of Cobalt, 1923-1924

—	1923		1924	
	lb.	$	lb.	$
Imports—				
Cobalt ore	600	576	.....	.....
Exports—				
Cobalt alloys	422	1,997	2,421	11,930
Cobalt metallics	239,614	571,908	170,513	382,225
Cobalt oxides and cobalt salts	486,230	886,746	490,505	908,122

Copper

The total production of copper for Canada during 1924 was 106,350,730 pounds valued at $13,851,118, as compared with 86,881,537 pounds, worth $12,529,186 in 1923. Copper, in commercial quantities, occurs in the Yukon Territory, British Columbia, Manitoba, Ontario and Quebec. No production of copper from the Yukon was reported during the year. In British Columbia, the production amounted to 65,580,791 pounds and included blister copper made at the Trail and the Granby smelters, the copper from the copper ores of the Britannia mine shipped to Tacoma, Washington, U.S.A., and the copper in the silver-lead ores exported. Large deposits occur in Manitoba but until better railway facilities are provided it is quite unlikely that there will be much activity in the production of this metal in that province. In Ontario copper is obtained mainly from the nickel-copper mines of the Sudbury district where it is smelted to a matte. Some of this matte is exported to Wales, and some to the United States; the remainder is blown to converter copper at Port Colborne. Until July, 1924, the British America Nickel Corporation operated a refinery at Deschenes, Que., but when this company was forced into liquidation, the plants were closed. A small amount of pyritic cinder is exported annually from Quebec; this material occurs as a by-product, the sulphur having been removed in the manufacture of sulphuric acid.

Copper Production in Canada by Provinces, 1923-1924

Province	1923		1924	
	Pounds	Value	Pounds	Value
		$		$
British Columbia	55,224,737	7,963,959	65,580,791	8,541,242
Ontario	31,656,800	4,565,227	37,104,356	4,832,471
Quebec	.....	.....	3,665,583	477,405
Total	**86,881,537**	**12,529,186**	**106,350,730**	**13,851,118**

Imports into Canada and Exports of Copper, 1923-1924

	1923		1924	
	Pounds	Value	Pounds	Value
		$		$
IMPORTS—				
Copper in bars or rods, when imported by manufacturers of trolley, telegraph and telephone wires, electric wires and electric cables for use only in the manufacture of such articles in their own factories	27,493,200	4,354,715	19,364,600	2,665,291
Copper in bars or rods, in coil or otherwise, in lengths of not less than 6 feet, unmanufactured	1,463,800	284,484	757,000	143,322
Copper in blocks, pigs or ingots	8,107,041	1,215,349	12,083,131	1,591,058
Copper, old and scrap	3,046,400	432,362	1,896,200	246,632
Copper, ore and concentrates	500	259	.....	.....
Copper in strips, sheets or plates not polished or coated	2,389,300	551,106	1,861,900	380,431
Copper tubing in lengths of not less than 6 feet, and not polished, bent or otherwise manufactured	1,539,791	415,133	1,509,734	354,741
Copper wire, plain, tinned or plated	213,174	55,478	242,870	71,899
Copper wire cloth, or woven wire of copper	–	19,858	–	7,462
Copper wire, single or several, covered with cotton, linen, silk, rubber or other material, including cable so covered	–	390,506	–	296,221
Copper, all other, manufactures of, n.o.p	–	429,327	–	420,611
Copper, precipitate of, crude	–	–	–	–
Anodes of nickel, zinc, copper, silver or gold	–	1,504	–	5,288
Copper, sub-acetate of, or verdigris, dry	3,782	860	683	201
Copper, sulphate of (blue vitriol)	3,374,871	176,858	2,866,760	142,994
Total	–	**8,327,919**	–	**6,327,051**
EXPORTS—				
Copper, fine, contained in ore, matte regulus, etc	34,548,000	3,607,031	49,545,800	5,346,489
Copper, blister	39,968,000	5,556,698	46,277,600	5,810,333
Copper, old and scrap	1,575,000	187,302	2,198,100	226,993
Copper in bars, rods, strips, sheets, plates and tubing	826,000	104,028	170,400	39,500
Copper wire and cable	–	387,359	–	636,597
Copper mfrs., n.o.p	–	262,296	–	56,116
Total	–	**10,104,714**	–	**12,116,028**

Monthly Average Prices of Copper (Electrolytic), New York and London, 1922, 1923 and 1924

(From the *Engineering and Mining Journal-Press.*)

	New York (In cents per pound)			London (£ Sterling per long ton)		
	1922	1923	1924	1922	1923	1924
January	13·465	14·510	12·401	72·321	71·409	67·193
February	12·864	15·355	12·708	66·125	74·500	68·167
March	12·567	16·832	13·515	65·739	81·464	72·087
April	12·573	16·663	13·206	64·028	81·331	70·150
May	13·111	15·440	12·772	66·554	76·568	67·648
June	13·575	14·663	12·327	69·333	73·238	66·313
July	13·654	14·321	12·390	70·321	72·364	65·815
August	13·723	13·822	13·221	69·932	70·000	67·800
September	13·748	13·323	12·917	70·917	68·275	67·125
October	13·632	12·574	12·933	70·693	64·250	66·620
November	13·598	12·727	13·635	70·216	66·477	68·063
December	14·074	12·823	14·260	70·132	67·611	69·762
Average	**13·382**	**14·421**	**13·024**	**68·859**	**72·291**	**68·062**

Gold

Canada's gold production in 1924 once more established a new high record with a total of 1,516,360 fine ounces which, valued at the standard rate for gold was worth $31,345,941, as compared with $25,495,421 in 1923 and the previous high record of $27,908,153 set up in 1900.

Ontario contributed 1,242,029 ounces, an increase of 270,325 ounces over the total for 1923, establishing a new high production record for the third year in succession. Adequate power for the mines' requirements was available in 1924 for the first time and was one of the principal contributing causes to the high output. Among the leaders, the Hollinger mine, with an output above 640,000 ounces showed an increase of 140,000 ounces above its 1923 total. Dome, second in the list maintained its standing with an output in excess of 200,000 ounces. McIntyre showed a gain to a total above 170,000 ounces. In the Kirkland Lake field also, production showed a notable advance.

Mines that were in the development stage a few years ago are being put on a producing basis and now that a sufficient supply of power in northern Ontario has been assured it is expected that the production will continue to advance. The Rouyn district in northern Quebec is being very carefully prospected, and in a comparatively short time it is probable that Quebec will be able to take her place as a gold-coppper producing province. Arsenical gold concentrates were shipped from Nova Scotia to Europe during the year, and this gold was included in the production record.

In British Columbia, gold is recovered from the placers, as bullion from the gold milling ores, and by the smelters treating gold-copper ores and the silver-lead-zinc ores. It is anticipated that the production of placer gold will be increased in British Columbia during the year 1925 as a new gold dredge is being taken into the old Caribou section and will likely work through proven ground. In the Yukon Territory the production was 34,927 ounces placer gold. This was 25,217 ounces less than 1923.

Production of Gold in Canada by Provinces, 1923 and 1924

Province	1923			1924			+ Increase or − decrease	
	Fine ozs.	Value	Per cent of total production	Fine ozs.	Value	Per cent of total production		
		$			$		Quantity	Per cent
Ontario	971,704	20,086,904	78·78	1,242,029	25,675,017	81·91	+270,325	+ 27·8
British Columbia	200,140	4,137,261	16·23	236,591	4,890,769	15·60	+ 36,451	+ 18·2
Yukon	60,144	1,243,287	4·88	34,927	722,005	2·31	− 25,217	− 42·0
Quebec	667	13,788	0·05	941	19,452	0·06	+ 274	+ 41·0
Manitoba	31	641	0·01	826	17,075	0·05	+ 795	+ 2,564·5
Nova Scotia	655	13,540	0·05	1,046	21,623	0·07	+ 391	+ 59·6
Canada	**1,233,341**	**25,495,421**	**100·00**	**1,516,360**	**31,345,941**	**100.00**	**+ 283,019**	**+ 22·9**

Production of Placer Gold in the Yukon Territory,* 1923 and 1924

(Quantities in crude ounces)

Month	Dawson		Whitehorse		Total	
	1923	1924	1923	1924	1923	1924
January	969·26	1,366·51	–	15·00	969·26	1,381·51
February	1,040·36	52·07	–	–	1,040·36	52·07
March	2·39	1,468·51	–	–	2·39	1,468·51
April	–	100·10	–	–	–	100·10
May	–	129·66	–	–	–	129·66
June	10,352·94	8,647·39	–	4·23	10,352·94	8,651·62
July	9,176·99	6,831·51	–	–	9,176·99	6,831·51
August	9,953·42	6,218·10	–	7·00	9,953·42	6,225·10
September	11,924·54	4,957·71	–	14·00	11,924·54	4,971·71
October	24,863·87	9,058·74	18·00	109·62	24,881·87	9,168·36
November	4,752·59	3,080·63	41·58	–	4,794·17	3,080·63
December	1,771·87	1,470·01	–	–	1,771·87	1,470·01
Total	**74,808·23**	**43,380·94**	**59·58**	**149·85**	**74,867·81**	**43,530·79**

*Supplied by the Mining Lands Branch, Department of Interior.

Receipts at the Royal Mint, Ottawa, Canada 1923 and 1924

Source	1923			1924		
	Gross weight	Precious metal content		Gross weight	Precious metal content	
		Fine gold	Fine silver		Fine gold	Fine silver
	Ozs.	Ozs.	Ozs.	Ozs.	Ozs.	Ozs.
Nova Scotia	406·92	339·873	20·17	681·13	594·456	43·49
New Brunswick	–	–	–	2·16	1·392	0·43
Ontario	640,535·35	509,756·764	80,150·75	59,227·40	28,052·613	4,693·12
Manitoba	69·61	29·638	4·49	985·34	826·239	103·38
Saskatchewan	15·96	10·150	1·08	–	–	–
Alberta	23·80	18·381	1·50	6·88	5·219	0·69
British Columbia—	60·63	39·111	15·74	5·74	5·029	0·51
Dominion of Canada Assay Office, Vancouver	124,131·24	98,259·084	19,083·97	90,865·54	74,785·025	11,493·15
Yukon	100·97	87·144	10·98	–	–	–
Jewelry and scrap, various sources	14,122·44	4,959·543	2,213·71	17,465·00	6,855·644	2,653·30
Foreign	295·53	238·739	33·00	90·53	67·503	20·10
Total	**779,762·45**	**613,738·427**	**101,535·39**	**169,329·81**	**111,193·120**	**19,008·17**

Imports into Canada and Exports of Gold, 1923 and 1924

—	Imports		Exports	
	1923	1924	1923	1924
	$	$	$	$
Bullion or fringe gold	42,283	40,468	–	–
Gold and silver sweepings	4,849	5,508	274,467	344,074
Gold bearing quartz, dust, nuggets and bullion obtained from operators	–	–	12,542,807	28,358,449
Total	**47,132**	**45,976**	**12,817,274**	**28,702,523**

Iron Ore

Shipments of iron ore from Canadian mines during 1924 were almost negligible. A small quantity of ilmenite amounting to about 1,400 tons was shipped from Baie St. Paul in Quebec, to the United States; this shipment was valued at $3,771. Exports of iron ore as reported by shipping companies in 1923 amounted to 5,663 short tons valued at $20,279. During 1924 a few tons of briquettes from Moose Mountain went to Niagara Falls, Ont., for treatment and there was also a small shipment of magnetite from Vananda, B.C., to Vancouver. Production of pig iron from Canadian ores smelted in Canada during 1924 amounted to 3,710 tons valued at $92,750. This cleaned up the stocks of domestic ores at Canadian blast furnaces.

Wabana shipments while not included in the record of the mineral production of Canada are always of interest to Canadian readers because of the volume of the shipments to the steel plants at Sydney, N.S. During 1924, shipments from Wabana mines totalled 1,094,570 short tons; of this amount, 174,602 tons was consigned to Cape Breton, and the balance to points in the United Kingdom and on the Continent.

Pig Iron, Steel Ingots and Castings

Pig Iron and Ferro-Alloys.—Pig iron made in Canada from Canadian ores in 1924 totalled 3,710 tons, which valued at $25 a ton was worth $92,750. In 1923, the recovery of pig iron at Canadian furnaces from the treatment of Canadian ores was 18,517 long tons, having a computed value of $432,298. The total production of pig iron in Canada during 1924 was 593,024 long tons, a decrease of 33 per cent from the 880,018 tons of 1923, but an increase of 55 per cent over the 383,057 tons of 1922. The average per capita production of pig iron in Canada in 1924 was 144 pounds as compared with 215·5 pounds in 1923; 95·6 pounds in 1922 and 151·4 pounds in 1921.

Furnaces in blast during the year numbered 8, located as follows: 3 at Sault Ste. Marie, Ont.; 2 at Hamilton, Ont.; and 3 at Sydney, N.S.

The output of ferro-silicon for the year was 26,400 tons, a decrease of 9 per cent from the 28,961 tons in 1923.

Steel Ingots and Castings.—The cumulative production of steel ingots and castings in Canada for the twelve months of 1924 was 650,690 tons comprising 625,175 tons steel ingots and 25,515 tons direct steel castings. The average per capita production of steel in Canada was 158 pounds in 1924; 217 pounds in 1923; 121 pounds in 1922 and 170 pounds in 1921.

A review of the price trend during 1924 shows that iron and its products declined steadily from January to November. The index based on 1913 average prices as 100, was 168·5 in January and 154·8 in November. The range in 1923 was from 158·9 in January to 174·4 in June; in December, 1923, it stood at 168·7. This group declined 14 points in 1924. The recovery in December, 1924 amounted to about 3 points.

Inactivity in the construction industry and dullness in business conditions generally which characterized 1924, were distinctly reflected in iron and steel prices—No. 1 foundry pig iron at Montreal was $30.95 per ton in January and $27.70 in November. In December, however, it rose to $30.20 per ton. Basic pig iron at the mill was $26 in January, $21 in November and $23 in December. Steel billets at Montreal were $41.50–$52 per ton in January, $34–$48 in November and $39–$48 in December.

Production of Pig-Iron and Ferro-Alloys in Canada, 1923 and 1924

(Tons of 2,240 lbs.)

—	1923				1924			
	In blast furnace		In electric furnace	Total	In blast furnace		In electric furnace	Total
	For own use	For sale	For sale		For own use	For sale	For sale	
Pig Iron—								
Basic	541,456	8,678	–	550,134	347,461	6,866	–	354,327
Foundry	1,007	227,930	–	228,937	1,512	178,867	–	180,379
Malleable	609	100,338	–	100,947	12,891	45,427	–	58,318
Total Pig Iron	**543,072**	**336,946**	–	**880,018**	**361,864**	**231,160**	–	**593,024**
Total Ferro-Alloys	–	–	**28,961**	**28,961**	–	–	**26,466**	**26,466**

Production of Steel Ingots and Castings in Canada, 1923 and 1924

(Tons of 2,240 lbs.)

—	1923			1924		
	For own use	For sale	Total production	For own use	For sale	Total production
Steel Ingots—						
Open hearth—Basic	839,710	–	839,710	620,510	–	620,510
Bessemer	–	–	–	–	–	–
Other	–	–	–	4,665	–	4,665
Electric	–	–	–	–	–	–
Total Steel Ingots	**839,710**	–	**839,710**	**625,175**	–	**625,175**
Steel castings—						
Open hearth—Basic	2,799	25,498	28,297	1,234	16,373	17,607
Acid	–	4,359	4,359	–	782	782
Bessemer	119	4,012	4,131	48	1,319	1,367
Electric	121	8,152	8,273	144	5,615	5,759
Total Direct Steel Castings	**3,039**	**42,021**	**45,060**	**1,426**	**24,089**	**25,515**
Grand Total	**842,749**	**42,021**	**884,770**	**626,601**	**24,089**	**650,690**

Lead

Lead production in 1924 established another new record for the output of this metal. Most of the supply was produced in the form of pig lead at Trail, British Columbia, and at Galetta, Ontario, but in addition, lead ores were exported for treatment from the Mayo district in Yukon Territory, from the Kootenay District in British Columbia, and from Notre Dame des Anges, Quebec. As thus computed the total quantity was 177,756,076 pounds; at the average Montreal price of 8·104 cents a pound for lead during 1924, the output had a value of $14,405,353. In the preceding year, 111,234,466 pounds was produced, which at 7·179 cents a pound was worth $7,985,522.

Production, Exports and Imports of Lead for Canada, 1923 and 1924

	1923		1924	
	Quantity	Value	Quantity	Value
	Lb.	$	Lb.	$
PRODUCTION—				
Quebec	520,041	37,334	1,022,983	82,903
Ontario	4,401,494	315,983	5,074,479	411,236
British Columbia	99,541,818	7,146,107	168,636,577	13,666,308
Yukon	6,771,113	486,098	3,022,037	244,906
Total	**111,234,466**	**7,985,522**	**177,756,076**	**14,405,353**
EXPORTS—				
Lead, contained in ore	7,948,100	535,937	13,152,400	784,750
Pig lead	47,144,500	2,496,207	108,709,600	6,866,220
Total	**55,092,600**	**3,032,144**	**121,862,000**	**7,650,970**
IMPORTS—				
Lead, bars and sheets	407,840	31,321	115,836	12,682
Lead, pig and block	2,689,396	141,580	687,174	50,509
Lead pipe	85,349	6,568	48,961	4,183
Shot and bullets	10,705	1,255	10,529	1,324
Lead, old and scrap	62,059	3,505	6,070	338
Tea lead	215,345	19,622	203,324	22,080
Manufactures of lead, n.o.p.	–	199,793	–	234,372
Total	–	**403,653**	–	**325,488**

Monthly Average Prices of Pig-Lead, Montreal* and New York,† 1922, 1923 and 1924

(Value in cents per pound)

Month	Montreal			New York		
	1922	1923	1924	1922	1923	1924
January	6·152	7·245	7·84	4·700	7·633	7·972
February	5·897	7·561	8·28	4·700	8·050	8·554
March	5·930	7·708	8·79	4·720	8·252	9·013
April	5·908	7·243	7·82	5·115	8·101	8·269
May	6·139	6·841	7·04	5·420	7·306	7·263
June	6·190	6·700	7·32	5·745	7·146	7·020
July	6·235	6·480	7·49	5·729	6·237	7·117
August	6·226	6·593	7·64	5·824	6·582	7·827
September	6·178	6·865	7·74	6·110	6·856	8·000
October	6·235	7·205	8·23	6·530	6·831	8·235
November	6·775	7·682	9·20	7·047	6·816	8·689
December	6·957	7·870	9·86	7·163	7·369	9·207
Average	**6·235**	**7·179**	**8·10**	**5·734**	**7·267**	**8·097**

* Producers' prices for car load quantities ex-cars Montreal, as furnished by the *Consolidated Mining and Smelting Company*.

† From the *Engineering and Mining Journal-Press*.

Manganese

During 1924 shipments of manganese amounting to 584 tons valued at $4,088 were reported from the province of New Brunswick. Deposits of manganese are known to occur in Lunenburg County, Nova Scotia, and in British Columbia near the town of Kaslo. Attempts have been made to ship from these properties to the United States but the United States tariff on manganese makes it very difficult for this new mining industry to get a start.

Molybdenum

Molybdenum was known to exist in different sections of Canada but was not mined to any extent until the demand for war purposes led to the development of several properties. During the years 1919 to 1923, because of surplus war stocks, there was no production but during 1924 the Moss Mine, a producer during the war years, at Quyon, Que., raised 700 tons of ore, of this amount, 600 tons was put through the mill and the concentrates therefrom were shipped to the United States.

Nickel

The production of nickel in Canada during 1924 amounted to 69,586,759 pounds, an increase over 1923 of 11·4 per cent. Valued at the average New York price for nickel, the output was worth $19,484,292. Production in 1923 totalled 62,453,843 pounds valued at $18,332,077. As noted in the general review, it is possible that sales of refined nickel from the Canadian refineries would be a better measure of nickel production and particularly of the nickel output value, but it has been customary in past years to quote the production of nickel as the content of smelter matte produced during the year and for convenience the same method has been retained in this preliminary report.

Nickel matte made by the International Nickel Company was refined at Port Colborne, Ont., and some was shipped to Huntingdon, West Virginia, for the manufacture of monel metal. As usual, the Mond Nickel Company exported matte to Wales. The British America Nickel Corporation refined nickel electrolytically at Deschenes, Que., up to July, 1924, at which time the company went into liquidation. Since then the two companies first mentioned have been the principal producers of nickel in Canada. Some nickel is also produced by the southern Ontario smelters as a by-product in the treatment of the ores from the Cobalt district.

Production in Canada and Exports of Nickel, 1923 and 1924

Items		1923		1924	
		Quantity	Value	Quantity	Value
PRODUCTION—			$		$
Nickel contained in matte	Lb.	62,057,835	–	69,310,136	–
Nickel from cobalt ores	"	396,008	–	276,623	–
Total	"	**62,453,843**	**18,332,077**	**69,586,759**	**19,484,292**
EXPORTS—					
Nickel, fine	"	22,897,900	4,649,251	25,985,800	5,090,059
Nickel contained in matte	"	28,971,000	4,077,000	36,712,200	5,176,907
Total	"	**51,868,900**	**8,726,251**	**62,698,000**	**10,266,966**

Metals of the Platinum Group

Metals of the platinum group produced from Canadian ores in 1924 amounted to $1,954,540 in value. This total includes values for platinum group metals recovered from British Columbia and Yukon placer gold, and also the values obtained from the treatment of nickel-copper mattes at Port Colborne, Ont., Deschenes, Que., and Clydach, Wales.

Canada's Production of Platinum Group Metals, 1923 and 1924

—		1923			1924		
		Platinum	Palladium	Rhodium, etc.	Platinum	Palladium	Rhodium, etc.
Produced by Canadian, United States and British refineries from Canadian mattes and residues	Fine ozs.	1,210	1,732	304	9,181	8,923	593
	Value, $	141,010	138,560	45,000	1,090,858	811,993	51,120
British Columbia placers	Fine ozs.	7	–	–	5	–	–
	Value, $	816	–	–	569	–	–
Total	**Fine ozs.**	**1,217**	**1,732**	**304**	**9,186**	**8,923**	**593**
	Value, $	**141,826**	**138,560**	**45,000**	**1,091,427**	**811,993**	**51,120**

Imports into Canada and Exports of Platinum, 1923 and 1924

—	1923		1924	
	Quantity	Value	Quantity	Value
	Ozs.	$	Ozs.	$
EXPORTS—				
Contained in concentrates	349	33,838	467	47,723
Platinum, old and scrap	126	8,988	237	24,372
Total	**475**	**42,826**	**704**	**72,095**
IMPORTS—				
Platinum retorts	–	40,471	–	579
Platinum wire, and in bars, strips, etc	–	117,607	–	167,225
Platinum crucibles	–	10,177	–	11,567
Total	–	**168,255**	–	**179,371**

Silver

The production of silver in Canada during 1924 was 20,243,846 ounces which valued at 66·781 cents, the average New York price for the year, was worth $13,519,043. In 1923, the silver output amounted to 18,601,744 ounces valued at $12,067,509.

First place among Canadian producers of silver in 1924 was again recovered by the Premier mine but the Nipissing which won the coveted position in 1923 was only about ten thousand ounces behind the Premier in 1924. Each mine produced more than 3,000,000 ounces of silver in 1924.

Canada's silver production is obtained principally from the Ontario silver-cobalt mines and from the silver-lead-zinc and copper-gold-silver mines in British Columbia. Keno Hill in Mayo district has also won a place, and there is a considerable production from placers both in British Columbia and the Yukon.

In Ontario the Cobalt camp seems to have been rejuvenated and the excellent development work in the South Lorrain field has been particularly satisfactory. Development work is also being carried on in the old mines around Cobalt; rich veins that were once passed over are now being located thus giving the assurance that this camp has many years yet to live. The Gowganda section also contributed its share to Ontario's production.

Production of Silver in Canada by Provinces, 1923 and 1924

Province	1923			1924		
	Quantity	Value	Per cent of total production	Quantity	Value	Per cent of total production
	Ozs.	$	Per cent	Ozs.	$	Per cent
Quebec (in ores exported)	33,006	21,412	0·18	88,209	58,907	0·43
Ontario	10,540,943	6,838,226	56·66	11,288,632	7,538,661	55·77
Manitoba and Nova Scotia	30	19	–	103	69	–
British Columbia	6,113,327	3,965,899	32·86	8,023,409	5,358,113	39·64
Yukon Territory (contained in placer gold and in ores exported)	1,914,438	1,241,953	10·30	843,493	563,293	4·16
Total	**18,601,744**	**12,067,509**	**100·00**	**20,243,846**	**13,519,043**	**100·00**

Imports into Canada and Exports of Silver, 1923 and 1924

—	1923		1924	
	Ozs.	$	Ozs.	$
IMPORTS—				
Silver bullion in bars	–	723,040	–	665,280
Sterling silver	–	234,047	–	209,430
Total	–	**957,087**	–	**874,710**
EXPORTS—				
Silver contained in ore, concentrates, etc	4,861,301	3,091,261	4,821,913	3,013,500
Silver bullion	12,324,336	8,046,463	13,656,107	9,069,454
Total	**17,185,637**	**11,137,724**	**18,478,020**	**12,082,954**

Monthly Average Prices of Silver,* 1922, 1923 and 1924

—	New York			London		
	1922	1923	1924	1922	1923	1924
January	65·450	65·668	63·447	35·035	31·928	33·549
February	65·290	64·313	64·359	33·891	30·875	33·565
March	64·440	67·556	63·957	33·269	32·310	33·483
April	66·575	66·855	64·139	34·080	32·348	33·065
May	71·154	67·043	65·524	36·023	32·611	33·870
June	71·149	64·881	66·690	35·900	31·611	34·758
July	70·245	63·015	67·159	35·644	30·942	34·509
August	69·417	62·793	68·519	34·957	30·952	34·213
September	69·515	64·203	69·350	35·395	31·608	34·832
October	68·015	63·649	70·827	34·498	31·718	35·387
November	65·177	63·818	69·299	32·882	32·774	33·775
December	63·905	64·705	68·096	31·383	33·375	32·620
Average	**67·528**	**64·873**	**66·781**	**34·406**	**31·929**	**33·969**

* New York quotations cents per ounce, troy, 999 fine, foreign silver.
London, pence per ounce, sterling silver, 925 fine.

Zinc

Refined zinc is produced at Trail, British Columbia, from the silver-lead-zinc ores of the Slocan district and from the Sullivan mine at Kimberley.

The production of zinc in Canada in 1924 established a new output record and amounted to 98,788,667 pounds of which 54,888,000 pounds was produced in the refined state at the Trail smelter and 43,900,667 pounds was recovered from zinc concentrates exported from the Sullivan mine and from the mine at Notre Dame des Anges, Que. Computed at 6·344 cents per pound, the average quotation for 1924 on the St. Louis market, the output was worth $6,267,152. In 1923 the production amounted to 60,416,240 pounds valued at $3,991,701

Production, Imports into Canada and Exports of Zinc, 1923 and 1924

—		1923		1924	
		Quantity	Value	Quantity	Value
			$		$
PRODUCTION—					
Quebec (in concentrates exported)	Lb.	366,240	24,197	2,902,848	184,156
British Columbia (refined and in concentrates exported)	"	60,050,000	3,967,504	95,885,819	6,082,996
Total	"	**60,416,240**	**3,991,701**	**98,788,667**	**6,267,152**
IMPORTS—					
Zinc dust	"	394,378	41,167	359,219	30,668
Zinc in blocks, pigs, bars and rods	"	5,227	464	67,768	4,685
Zinc in sheets and plates	"	3,195,855	287,664	3,005,876	255,162
Zinc spelter	"	685,356	54,408	1,230,251	84,486
Zinc, manufactures of, n.o.p.		–	104,487	–	176,564
Total		–	**488,190**	–	**551,565**
EXPORTS—					
Zinc ore	Tons	531	5,310	63,931	1,626,031
Zinc spelter	"	19,258	2,513,763	20,017	2,519,755
Total		–	**2,519,073**	–	**4,145,786**

Monthly Average Prices of Zinc at Montreal, St. Louis and London, 1922, 1923 and 1924

Month	Montreal[1] (In cents per pound)			St. Louis[2] (In cents per pound)			London[2] (In pounds Sterling per long ton)		
	1922	1923	1924	1922	1923	1924	1922	1923	1924
January	6·472	8·544	8·02	4·691	6·815	6·426	26·321	35·733	34·761
February	6·211	8·840	8·38	4·485	7·152	6·756	24·213	35·613	36·518
March	6·288	9·412	8·16	4·658	7·706	6·488	25·467	36·720	35·298
April	6·531	8·879	7·72	4·906	7·197	6·121	26·576	34·275	32·588
May	6·691	8·013	7·33	5·110	6·625	5·793	27·304	31·057	30·648
June	6·906	7·650	7·30	5·346	6·031	5·792	27·893	29·548	31·788
July	7·274	7·740	7·40	5·694	6·089	5·898	29·042	29·335	32·193
August	7·734	8·086	7·64	6·212	6·325	6·175	31·170	32·386	32·544
September	7·864	8·190	7·65	6·548	6·438	6·181	31·750	33·469	32·926
October	7·274	7·992	7·79	6·840	6·293	6·324	34·528	32·995	33·514
November	8·639	8·014	8·25	7·104	6·347	6·706	38·011	32·949	35·022
December	8·637	7·850	8·84	6·999	6·260	7·374	37·757	32·611	36·932
Average	**7·210**	**8·268**	**7·87**	**5·716**	**6·607**	**6·344**	**30·003**	**33·058**	**33·728**

[1] Supplied by Consolidated Mining and Smelting Co., Montreal, P.Q.
[2] Quoted from *Engineering and Mining Journal-Press*.

NON-METALLICS

Abrasives

Corundum.—Corundum is found in Canada in an area embracing several townships in Renfrew and Hastings counties, in the province of Ontario. No shipments of this commodity were reported in 1923 but in 1924, exports amounting to 2 tons valued at $251, were recorded.

Grindstones, Pulpstones and Scythestones.—The production of grindstones, pulpstones and scythestones in Canada during 1924 totalled 2,121 tons, valued at $78,266. In the previous year 2,014 tons at $80,083 was produced. The quarries operated were located at Quarryville and Stonehaven New Brunswick and Woodburn, Nova Scotia. Although reference has been made in the technical press of a shipment of some 500 tons of pulpstones from a quarry at Nanaimo, British Columbia, no official record has as yet been obtained concerning this production.

Tripolite.—The only production of this commodity in Canada during recent years has been derived from deposits located at Silica Lake, Colchester County, Nova Scotia.

Shipments of triplolite reported in 1924 amounted to 36 tons worth $1,080 as compared with 130 tons at $3,250 in 1923.

Volcanic Ash.—A deposit of volcanic ash near Waldeck, Saskatchewan (Township 16, range 12, west of the 3rd meridian) was operated during 1924. According to data available, shipments during the year amounted to 200 tons worth $900. This material is used as a base in the manufacture of cleansers.

Imports into Canada and Exports of Abrasives, 1923 and 1924

		1923		1924	
		Quantity	Value	Quantity	Value
			$		$
IMPORTS—					
Grindstones		–	482,340	–	593,670
Burrstones in blocks, etc.	No.	519	6,908	145	791
Emery in bulk, crushed or ground		–	57,267	–	53,208
Emery and carborundum wheels and manufactures		–	151,065	–	76,971
Pumice and pumice stone, ground		–	28,222	–	28,127
Iron sand or globules for polishing and sawing		–	20,855	–	17,985
Sandpaper, emery paper, etc.		–	293,065	–	279,586
Artificial abrasives		–	243,408	–	125,303
Total		–	**1,284,030**	–	**1,175,641**
EXPORTS—					
Grindstones, manufactured		–	37,101	–	49,630
Stone for the manufacture of grindstones	Tons	170	1,190	120	1,080
Abrasives—					
Natural, n.o.p.	Cwt.	47,710	115,342	8,042	15,081
Artificial, crude, including carborundum	"	887,343	2,819,558	790,983	2,587,350
Artificial, made up into wheels, stones, etc.		–	27,127	–	13,264
Corundum		–	–	2	251
Total		–	**3,000,318**	–	**2,666,656**

Actinolite

Operations were resumed in 1924 on the deposit of actinolite in Elzivir township, Ontario. The total shipments of milled product to the United States during the year amounted to 90 tons with a valuation of $1,225.

Actinolite is used as an ingredient for coal tar roofing compounds.

Asbestos

The demand for Canadian asbestos continued at about the same level as in the previous year but the average selling price for all grades was $2.55 lower per ton. Sales by Canadian producers for the year consisted mainly of the lower grades.

Shipments reported for 1924 amount to 220,005 tons valued at $6,590,251; thus, for all grades the average return was $29.95 per ton. In 1923 sales totalled 231,482 tons at $7,522,506, averaging $32.50 per ton.

Exports of asbestos other than sand and waste decreased 30,000 tons in 1924 to a total of 107,200 tons while the exports of sand and waste increased about 17,000 tons to 95,019 tons.

Output and Sales of Asbestos in Canada, 1923 and 1924

Classification	1923				1924			
	Total output	Sold or shipped			Total output	Sold or shipped		
		Quantity	Total sales value at mill	Average value per ton		Quantity	Total sales value at mill	Average value per ton
	Tons	Tons	$	$	Tons	Tons	$	$
Crude No. 1	1,029	603	275,101	456·22	867·	866	316,886	365·92
Crude No. 2	3,066	3,246	794,834	244·86	2,761	3,546	720,201	203·13
Fiberized Crude	220	5	1,306	261·20	190	71	12,080	170·14
Spinning Stocks	10,430	11,708	1,456,904	124·44	8,638	10,082	1,096,864	108·79
Shingle Stocks	28,861	25,533	1,215,892	47·62	15,734	19,022	883,575	46·98
Mill Board Stocks	6,549	7,268	189,200	26·03	12,667	11,753	355,772	30·27
Paper Stocks	62,702	69,743	2,292,804	32·87	60,354	58,623	1,854,260	31·63
Paper Fillers	67,791	62,089	980,964	15·65	62,652	60,047	895,784	14·92
By-Products (asbestos sand, finish, flouts)	56,002	50,687	315,501	6·22	57,889	55,823	352,839	6·32
Total	236,659	231,482	7,522,506	32·50	221,752	219,833	6,498,351	29·56
Ontario		included above			200	172	91,900	–
Grand Total	**236,659**	**231,482**	**7,522,506**	**32·50**	**221,952**	**220,005**	**6,590,251**	**29·95**

Imports into Canada and Exports of Asbestos, 1923 and 1924

	1923		1924	
	Tons	$	Tons	$
IMPORTS—				
Asbestos in any form other than crude, and all manufactures of, n.o.p	–	697,319	–	441,300
Asbestos packing	84	78,009	111	98,418
Total	–	**775,328**	–	**539,718**
EXPORTS—				
Asbestos	137,551	7,628,777	107,200	6,297,819
Asbestos sand and waste	77,951	931,245	95,019	1,219,270
Asbestos manufactures	–	72,498	–	44,132
Total	–	**8,632,520**	–	**7,561,221**

Monthly Average Prices of Asbestos by Grades, 1924

(Short Tons)

Month	Crude No. 1	Crude No. 2	Spinning fibres	Magnesia and compressed sheet fibres	Shingle stock	Paper stock	Cement stock	Floats stock
	$	$	$	$	$	$	$	$
January	388	225	113	75	60	35	19	9
February	350	200	108	75	60	36	23	8
March	350	200	118	75	60	37	23	8
April	350	200	118	75	60	37	23	9
May	350	200	118	75	60	37	23	11
June	363	213	120	85	60	38	23	10
July	363	213	120	85	60	38	23	10
August	350	188	120	76	57	35	18	10
September	313	175	108	70	50	33	20	9
October	350	175	108	65	50	35	20	11
November	350	175	108	65	50	35	20	11
December	313	195	108	65	48	33	20	11
Average	**349**	**197**	**114**	**74**	**56**	**36**	**21**	**10**

Barytes

The production of barytes in Canada during 1924 was 91 tons valued at $2,098. Operations were carried on by one firm at the Johnson Barytes Mine, Lake Ainslie, Inverness County, Nova Scotia.

Imports of barytes into Canada were recorded at 2,323 tons worth $48,693 in 1924 as compared with 2,420 tons valued at $53,670 in 1923.

Bituminous Sands

Experimental operations were continued during 1924 on the bituminous sands of Alberta. These deposits are located in the Fort McMurray district. The Scientific and Industrial Research Council of Alberta, the McMurray Asphaltum and Oil, Limited, and the Federal Mines Department were actively engaged in research work in connection with these sands. Shipments to date (since 1914) have amounted to 531 tons.

As a matter of interest a table is given below showing the imports of asphalt into Canada during 1923 and 1924.

Imports of Asphalt into Canada, 1923 and 1924

—	1923		1924	
	Tons	Value	Tons	Value
		$		$
Asphalt, solid	12,572	267,462	17,070	283,658
Asphalt, not solid	–	17,095	–	10,536
Asphaltum oil	–	27,282	–	37,794
Total	–	**311,839**	–	**331,988**

Coal

While metal mining in Canada advanced to new high levels in 1924, the production of coal from Canadian mines dropped off about 3·3 million tons from the output in 1923; the total for the year was 13,617,313 net tons, valued at the mine at $54,885,239 compared with $72,058,986 reported in the preceding year. Nova Scotia mines showed a loss of 1,040,090 tons from the total for 1923; New Brunswick output was less by 60,985 tons; Saskatchewan's gain was 39,000 tons but it was in Alberta that the greatest reduction was sustained, for the output

of 5,175,226 tons was 1·7 million tons less than the total for 1923; the output from British Columbia coal mines fell off 632,592 tons. The output of coal by classes included 9,479,245 tons of bituminous coal, 590,153 tons of sub-bituminous coal, and 3,547,915 tons of lignite. Labour troubles in District 18 in which some of the principal coal mines of Alberta and British Columbia are located were the chief cause of the lessened output. In this respect the situation at the end of the year seemed much more promising. At most of the mines agreements had been reached and the outlook for the immediate future was considered much more hopeful than it had been for many months.

Employment in the coal mining industry continued to be a problem fraught with many difficulties. The bargain driven by the men in Nova Scotia proved less advantageous than was expected by its promoters; broken time offset the gains due to higher rates of pay.

The Dominion Government assisted the coal miners of the maritime provinces to market their coal at a lower cost by providing a subvention of $150,000 to aid in the delivery of coal to points in Central Canada. Depression in the iron and steel industry, the principal mainstay of eastern Canadian coal mines, was a great check to production.

In western Canada, labour disagreements in Alberta and southeastern British Columbia largely accounted for the great loss in production in this area. Unable to accept orders on which they could guarantee delivery, the companies in this field continued to lose their cultivated markets; consumers purchased supplies from available sources, and to meet the demand imported coal was carried into the Middle West. On the conclusion of the strike, the men returned to the mines but in a very short time sufficient coal was produced to supply the diminished markets and the mines were closed. Later, a more favourable agreement was negotiated and the companies, with this advantage of lower costs, set about recovering the markets lost during the spring and summer months. Vancouver Island collieries have been holding their own but the costs of mining are high and markets none too plentiful at present quotations.

Yet in spite of the fact that production of coal in Canada was so much lower in 1924 than in 1923, imports of foreign coal also showed a very considerable decrease. Domestic supplies of anthracite, it is true, were only slightly less in volume than before but the tonnage of bituminous coal imported showed a loss of five million tons. Industrial depression and the closure of many factories during the year reduced the apparent consumption of coal in Canada by 8·35 million tons below the amount used in 1923. The term "apparent" is used advisedly as during 1923 stocks were built up and the tonnage of coal made available for consumption was probably considerably in excess of the quantity actually used. The consumption of coal is ordinarily estimated as the sum of production and imports, less exports. Imports of anthracite coal from the United Kingdom continued on the same scale as in 1923 but bituminous coal from this source fell off to about one-sixth of the amount brought in during the preceding year.

Exports of Canadian coal in 1924, following the declining trend in production, totalled less than a million tons, or less than half of the tonnage cleared for export in 1923. The loss was fairly evenly divided between the mines in eastern Canada and those in the western provinces. During the year, about 372,326 tons was exported from Nova Scotia and New Brunswick, as compared with 795,135 tons exported from these provinces in 1923. Alberta and British Columbia together marketed in the neighbourhood of 383,000 tons of coal in foreign lands; this compared with 838,668 net tons exported in 1923. Canadian coal was used in the United States, Newfoundland, the Netherlands, and the United Kingdom in appreciable quantities; coal was also sold to forty-odd other countr es, but in comparatively small amounts.

The apparent consumption of coal in Canada in 1924 was 29·6 million short tons as compared with 38 million short tons made available for consumption in the preceding year. During the year, Canada produced 13·6 million tons, exported about 0·77 million tons, imported about 16·8 million tons and thus apparently consumed 29·6 million tons. Comparative data for 1923 showed an output of 16·9 million tons, exports of 1·6 million tons, imports totalling 22·6 million tons so that the coal made available for consumption in Canada was 38 million tons as noted above. About one-quarter of the total Canadian consumption is used by the railways.

Output and Value of Coal by Provinces and Grades, 1923 and 1924

(Short tons)

Province	1923		1924	
	Output	Total Value	Output	Total Value
	Tons	$	Tons	$
Nova Scotia—				
Bituminous	6,597,838	28,170,458	5,557,429	23,380,810
New Brunswick—				
Bituminous	276,617	1,196,772	215,632	924,196
Saskatchewan—				
Lignite	438,100	858,448	477,191	883,399
Alberta—				
Anthracite	107	322	–	–
Bituminous	3,243,803	15,296,435	1,514,349	6,890,288
Sub-Bituminous	466,492	1,399,424	590,153	1,770,459
Lignite	3,143,995	11,322,122	3,070,724	10,440,462
Total for Alberta	6,854,397	28,018,303	5,175,226	19,101,209
British Columbia—				
Bituminous	2,823,306	13,813,520	2,190,714	10,587,360
Yukon—				
Bituminous	313	1,485	1,121	8,265
Canada—				
Anthracite	**107**	**322**	–	–
Bituminous	**12,941,877**	**58,478,670**	**9,479,245**	**41,790,919**
Sub-Bituminous	**466,492**	**1,399,424**	**590,153**	**1,770,459**
Lignite	**3,582,095**	**12,180,570**	**3,547,915**	**11,323,861**
Total	**16,990,571**	**72,058,986**	**13,617,313**	**54,885,239**

Shipments of Coal from Canadian Mines by Grades and Destinations, 1923 and 1924

(Short tons)

Destination	1923				1924			
	Run of Mine	Screened	Slack	Total	Run of Mine	Screened	Slack	Total
Nova Scotia	574,835	571,775	709,353	1,855,963	290,505	493,629	570,571	1,354,705
Prince Edward Island	13,990	68,047	380	82,417	7,052	57,778	510	65,340
New Brunswick	462,061	220,573	52,517	735,151	294,382	214,105	87,816	596,303
Quebec	1,290,477	28,151	221,656	1,540,284	1,226,822	60,837	367,840	1,655,499
Ontario	24,371	45,075	8,320	77,766	2,740	18,123	7,140	28,003
Manitoba	176,413	537,433	71,102	784,948	152,701	509,341	73,949	735,991
Saskatchewan	234,900	1,078,818	110,598	1,424,316	247,627	1,049,925	114,307	1,411,859
Alberta	229,761	807,304	293,881	1,330,946	254,169	855,273	275,458	1,384,900
British Columbia	91,750	576,429	246,399	914,578	65,679	593,770	243,156	902,605
Yukon	–	440	–	440	–	501	–	501
Total Domestic Shipments	3,098,558	3,934,045	1,714,206	8,746,809	2,541,677	3,853,282	1,740,747	8,135,706
Railroads	4,540,483	238,059	145,420	4,923,962	2,468,694	236,962	159,468	2,865,124
Ships' Bunker	260,144	338,072	8,305	606,521	268,467	324,538	7,580	600,585
Total Railroads and Ships' Bunker	4,800,627	576,131	153,725	5,530,483	2,737,161	561,500	167,048	3,465,709
United States	323,965	196,268	63,173	583,406	29,738	157,070	38,405	225,213
Newfoundland	107,465	153,444	10,476	271,385	108,716	144,447	475	253,638
West Indies	–	106	–	106	81	–	–	81
Europe	86,536	1,120	–	87,656	–	–	–	–
Other Places	3,031	7,383	561	10,975	3,601	7,605	–	11,206
Lost at Sea	–	–	–	–	896	–	–	896
Total Foreign Shipments	520,997	358,321	74,210	953,528	143,032	309,122	38,880	491,034
Total	**8,420,182**	**4,868,497**	**1,942,141**	**15,230,820**	**5,421,870**	**4,723,904**	**1,946,675**	**12,092,449**

Exports of Canadian Coal by Provinces, 1923 and 1924

(Short tons)

Province	1923	1924
Nova Scotia	670,771	341,307
New Brunswick	115,361	31,019
Quebec	3	9,005
Ontario	877	-
Manitoba	8,213	3,617
Saskatchewan	11,510	4,728
Alberta	605	435
British Columbia and Yukon	838,063	383,135
Total	**1,654,406**	**773,246**

Coal made Available for Consumption in Canada, 1923 and 1924

(Short tons)

Month	1923				1924			
	Output	Imports	Exports	Coal made available for use	Output	Imports	Exports	Coal made available for use
January	1,831,058	1,641,714	216,199	3,256,573	1,536,624	1,232,818	82,595	2,686,847
February	1,640,202	1,326,207	184,952	2,781,457	1,235,056	1,281,491	71,838	2,444,709
March	1,468,295	1,817,687	284,491	3,001,491	1,610,375	1,575,655	94,638	3,091,392
April	1,301,896	1,171,188	128,559	2,344,525	1,008,752	734,991	5,318	1,738,425
May	1,262,617	1,683,675	99,141	2,847,151	726,369	1,105,126	47,965	1,783,530
June	1,318,442	2,562,379	101,421	3,779,400	729,487	1,434,889	46,194	2,118,182
July	995,671	2,444,768	73,272	3,367,167	737,966	1,655,712	70,235	2,323,443
August	1,595,051	2,745,938	103,478	4,237,511	708,482	1,557,141	63,415	2,202,208
September	1,239,871	2,125,379	90,566	3,274,684	916,223	1,587,613	55,353	2,448,483
October	1,536,317	1,931,450	155,396	3,312,371	1,332,977	1,819,156	81,494	3,070,639
November	1,515,490	1,661,264	101,558	3,075,196	1,560,483	1,452,208	64,075	2,957,616
December	1,285,661	1,575,671	115,373	2,745,959	1,505,519	1,391,778	90,126	2,807,171
Total	**16,990,571**	**22,687,320**	**1,654,406**	**38,023,485**	**13,617,313**	**16,828,578**	**773,246**	**29,672,645**

Summary Statistics for 1924—Output, Exports, Interprovincial Shipments, Imports and Coal made Available for Consumption in Canada, by Provinces

(Short tons)

Province	Canadian coal				Imported from U.S.A.	Imported from Great Britain	Coal available for consumption
	Output	Received from other provinces	Shipped to other provinces	Exported			
Nova Scotia—							
Anthracite..	–	–	–	–	37,616	12,461	50,077
Bituminous	5,557,429	–	2,149,663	341,307	67,168	246	3,133,873
Total	5,557,429	–	2,149,663	341,307	104,784	12,707	3,183,950
New Brunswick—							
Anthracite..	–	–	–	–	58,932	25,579	84,511
Bituminous	215,632	439,856	22,302	31,019	72,537	15	674,719
Total	215,632	439,856	22,302	31,019	131,469	25,594	759,230
Prince Edward Island—							
Anthracite..	–	–	–	–	3,571	–	3,571
Bituminous	–	65,340	–	–	3,597	–	68,937
Total	–	65,340	–	–	7,168	–	72,508
Quebec—							
Anthracite..	–	–	–	–	1,090,571	229,142	1,319,713
Bituminous	–	1,655,499	–	9,005	1,525,516	39,842	3,211,852
Lignite	–	–	–	–	–	–	–
Total	–	1,655,499	–	9,005	2,616,087	268,984	4,531,565
Central Ontario—							
Anthracite..	–	–	–	–	2,591,710	8,095	2,599,805
Bituminous	–	11,270*	–	–	8,833,935	–	8,845,205
Lignite	–	–	–	–	–	–	–
Sub-bituminous	–	–	–	–	–	–	–
Total	–	11,270	–	–	11,425,645	8,095	11,445,010
Manitoba and Head of Lakes—							
Anthracite..	–	–	–	–	123,510	–	123,510
Bituminous	–	10,345	–	3,617	2,047,522	–	2,054,250
Lignite	–	680,793	–	–	–	–	680,793
Sub-bituminous	–	61,586	–	–	–	–	61,586
Total	–	752,724	–	3,617	2,171,032	–	2,920,139
Saskatchewan—							
Anthracite	–	–	–	–	1,720	–	1,720
Bituminous	–	75,153	–	4,728	2,422	–	72,847
Lignite	477,191	1,077,960	222,558	–	139	–	1,332,732
Sub-bituminous	–	53,437	–	–	–	–	53,437
Total	477,191	1,206,550	222,558	4,728	4,281	–	1,460,736
Alberta—							
Anthracite	–	–	–	–	–	–	–
Bituminous	1,514,349	22,375	82,506	435	1,209	–	1,454,992
Lignite	3,070,724	1,110	1,610,690	–	–	–	1,461,144
Sub-bituminous	590,153	–	126,452	–	–	–	463,701
Total	5,175,226	23,485	1,819,648	435	1,209	–	3,379,837
British Columbia and Yukon—							
Anthracite	–	–	–	–	687	–	687
Bituminous	2,191,835	25,622	50,989	383,135	25,073†	–	1,808,406
Lignite	–	73,385	–	–	25,763	–	99,148
Sub-bituminous	–	11,429	–	–	–	–	11,429
Total	2,191,835	110,436	50,989	383,135	51,523	–	1,919,670
Canada—							
Anthracite	–	–	–	–	**3,908,317**	**275,277**	**4,183,594**
Bituminous	**9,479,245**	**2,305,460**	**2,305,460**	**773,246**	**12,578,979†**	**40,103**	**21,325,981**
Lignite	**3,547,915**	**1,833,248**	**1,833,248**	–	**25,902**	–	**3,573,817**
Sub-bituminous	**590,153**	**126,452**	**126,452**	–	–	–	**590,153**
Total	**13,617,313**	**4,265,160**	**4,265,160**	**773,246**	**16,513,198**	**315,380**	**29,672,645**

† Includes 1,793 tons coal imported from other countries. * Maritime coal.

Imports of Anthracite and Bituminous Coal into Canada from United States and Great Britain, 1923 and 1924

(Short tons)

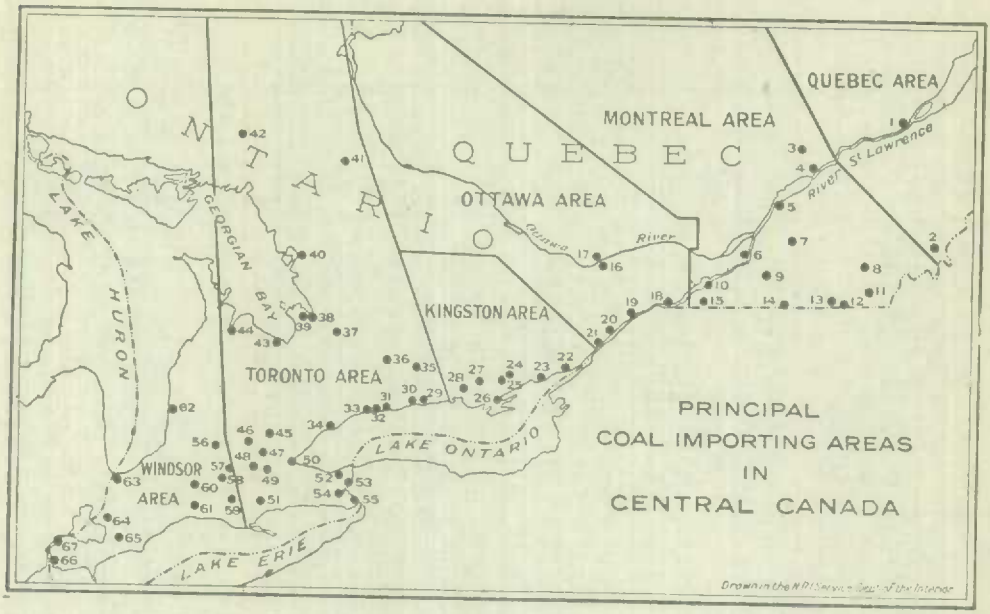
—	Five year average for the month 1919-1923	1923			1924		
		United States	Great Britain	Total	United States	Great Britain	Total
Anthracite—							
January	350,907	405,679	15,888	421,567	342,197	1,839	344,036
February	323,763	380,347	42,203	422,550	281,210	6,002	287,212
March	375,538	486,673	6,674	493,347	389,137	1,153	390,290
April	262,582	392,417	23,035	415,452	226,050	2,426	229,076
May	350,132	433,044	–	433,044	276,148	13,899	290,047
June	393,975	479,160	26,742	505,902	330,390	25,413	355,803
July	423,209	474,177	21,590	495,767	362,032	52,802	415,434
August	423,996	468,687	19,595	488,282	286,964	42,413	329,377
September	331,345	287,862	40,959	328,821	314,329	13,620	327,949
October	383,235	301,329	9,787	311,116	402,379	51,123	453,502
November	417,792	391,844	12,268	404,112	327,561	34,198	361,759
December	426,415	405,003	42,918	447,921	368,720	30,389	399,109
Total	**4,462,889**	**4,906,222**	**261,659**	**5,167,881**	**3,908,317**	**275,277**	**4,183,594**
Bituminous—							
January	937,515	1,210,074	10,073	1,220,147	870,651	18,131	888,782
February	771,352	881,661	21,996	903,657	985,933	8,346	994,279
March	994,956	1,308,993	15,347	1,324,340	1,185,365	–	1,185,365
April	593,890	749,582	6,154	755,736	505,915	–	505,915
May	809,108	1,235,618	15,013	1,250,631	815,079	–	815,079
June	1,262,001	2,003,773	52,704	2,056,477	1,077,950	1,136	1,079,086
July	1,403,087	1,906,044	42,957	1,949,001	1,239,593	685	1,240,278
August	1,542,439	2,241,389	16,267	2,257,656	1,219,536	8,228	1,227,764
September	1,444,083	1,759,458	37,100	1,796,558	1,259,664	–	1,259,664
October	1,654,449	1,593,223	27,111	1,620,334	1,304,623	1,031	1,305,654
November	1,516,247	1,238,503	18,649	1,257,152	1,087,903	2,546	1,090,449
December	1,177,329	1,122,311	5,439	1,127,759	992,669	–	992,669
Total	**14,106,456**	**17,250,629‡**	**268,810**	**17,519,439**	**(a)12,604,881**	**40,103**	**12,644,984**

‡ Includes 2,331 tons lignite coal.

(a) Includes 25,902 tons lignite coal, also 1,793 tons coal imported from other countries.

Imports of Coal into Central Canada by Principal Areas

Area	Anthracite			Bituminous		
	(1) 12 months ending Dec. 31, 1924	(2) Five-year average 1919-1923	(3) Per cent of (1) to (2)	(4) 12 months ending Dec. 31, 1924	(5) Five-year average 1919-1923	(6) Per cent of (4) to (5)
Quebec	70,200	124,436	56	148,105	219,685	65
Montreal	1,232,152	1,261,286	97	1,369,460	2,504,801	55
Ottawa	268,538	322,382	83	714,580	682,618	100
Kingston	106,511	134,473	79	180,753	164,764	115
Toronto	1,876,458	1,865,504	101	4,589,495	4,828,974	96
Windsor	347,014	344,322	101	2,400,069	2,499,629	97
Total	**3,900,873**	**4,052,403**	**96**	**9,402,462**	**10,900,471**	**86**



Key to the Ports of Entry Shown on the Map

Quebec Area—

1 Quebec City
2 Megantic

Montreal Area—

3 Shawinigan Falls
4 Three Rivers
5 Sorel
6 Montreal
7 St. Hyacinthe
8 Sherbrooke
9 St. John's
10 Valleyfield
11 Coaticook
12 Beebe Junction
13 Mansonville
14 St. Armand
15 Athelstan

Ottawa Area—

16 Ottawa
17 Hull
18 Cornwall
19 Morrisburg

Kingston Area—

20 Prescott
21 Brockville
22 Gananoque
23 Kingston
24 Napanee
25 Deseronto
26 Picton
27 Belleville
28 Trenton

Toronto Area—

29 Cobourg
30 Port Hope
31 Bowmanville
32 Oshawa
33 Whitby
34 Toronto
35 Peterboro
36 Lindsay
37 Orillia
38 Port McNicoll
39 Midland
40 Parry Sound
41 North Bay
42 Sudbury
43 Collingwood
44 Owen Sound
45 Guelph
46 Kitchener
47 Galt
48 Paris
49 Brantford
50 Hamilton
51 Simcoe
52 St. Catharines
53 Niagara Falls
54 Welland
55 Bridgeburg

Windsor Area—

56 Stratford
57 Woodstock
58 Ingersoll
59 Tillsonburg
60 London
61 St. Thomas
62 Goderich
63 Sarnia
64 Wallaceburg
65 Chatham
66 Amherstburg
67 Windsor

Feldspar

There was an active demand for Canadian feldspar during 1924 and sales for the year amounted to 39,776 tons valued at $299,641 as compared with 29,225 tons at $237,601 in 1923. Shipments in 1924 consisted of 19,066 tons from Quebec deposits and 20,710 tons from Ontario deposits.

Exports advanced some 11,000 tons to a total of 37,869 tons while the imports also showed an increase which amounted to 200 tons.

Production, Imports and Exports of Feldspar, 1923 and 1924

—	1923		1924	
	Tons	Value	Tons	Value
		$		$
Production	29,225	237,601	39,776	299,641
Imports	1,701	36,622	1,921	37,845
Exports	26,476	177,569	37,869	274,681

Fluorspar

Only one small shipment of fluorspar amounting to 5 tons valued at $100 was reported for 1924. In 1923, sales amounted to 139 tons valued at $1,732. The Rock Candy mine and mill at Lynch Creek, owned by the Consolidated Mining and Smelting Company, was inactive throughout the year.

Imports of fluorspar were recorded at 4,355 tons worth $50,158, a decrease of approximately 13,000 tons in quantity and of $149,000 in value. In addition, Customs records showed a small importation of hydro-fluo-silicic acid.

Production, Imports and Exports of Fluorspar, 1923 and 1924

—	1923		1924	
	Tons	Value	Tons	Value
		$		$
Production—				
Ontario	64	597	5	100
British Columbia	75	1,135	–	–
Total	**139**	**1,732**	**5**	**100**
Imports—Hydro-fluo-silicic acid	3·8	662	0·14	40
Fluorspar	17,235	190,596	4,355	50,158

Graphite

The production of graphite in Canada during 1924 amounted to 1,337 tons valued at $76,117 as against 1,113 tons at $67,873 in 1923. The Black Donald Graphite Company, Ltd., the Canadian Graphite Corporation, the North American Graphite Co., Ltd., and the Quebec Graphite Company all reported shipments.

The price situation in United States during 1924 is summed up in the *Engineering and Mining Journal-Press* as follows:—

"During most of 1924, Ceylon lump sold in New York, after the payment of duty, for 5½ to 6 c.; chip, 4 to 4½c.; and dust, 2½ to 3 c. per pound. Early in December, 1924, prices had increased respectively to 7, 5½, and 4½c. Madagascar flake, which fluctuated between 4½ and 6 c. until fall, increased to 8 c. in December. Domestic flake prices were about the same as those of Madagascar. In general, Madagascar and American graphite flake are so nearly alike that they command practically the same price; although individual manufacturers continue to express decided preference for one or the other."

Exports during the year were considerably higher and totalled 1,148 tons valued at $59,992. In the previous twelve months, 799 tons worth $36,980 was exported.

Production, Imports and Exports of Graphite, 1923 and 1924

—	1923		1924	
	Tons	Value	Tons	Value
		$		$
PRODUCTION	1,113	67,873	1,337	76,117
IMPORTS—				
Crucibles, plumbago	–	57,322	–	42,740
Plumbago not ground or otherwise manufactured	–	1,661	–	2,651
Plumbago ground and manufactures of, n.o.p.	–	70,704	–	50,924
EXPORTS—				
Graphite or plumbago, crude or refined	799	36,980	1,148	59,992

Gypsum

There was an appreciable increase in the shipments of Canadian gypsum in 1924 as compared with those of the previous twelve months. Sales for the year totalled 645,020 tons with a valuation of $2,198,598, while 578,301 tons at $2,243,100 were shipped in 1923.

By provinces the shipments were as follows: Nova Scotia, 440,486 tons; New Brunswick, 86,738 tons; Ontario, 88,121 tons; Manitoba, 29,375 tons, and British Columbia, 300 tons. Imports of crude gypsum were recorded at 3,252 tons worth $63,156, while exports of Canadian gypsum totalled 477,462 tons consisting of 472,236 tons crude and 5,226 tons ground with a total value of $831,756.

Production of Gypsum in Canada, 1923 and 1924

—	1923		1924	
	Tons	Value	Tons	Value
		$		$
CRUDE—				
Lump or mine run	217,414	394,217	139,588	253,041
Crushed	232,899	443,431	381,562	605,285
Fine ground	7,452	45,719	5,585	32,524
Calcined gypsum sold	29,610	386,495	34,674	385,703
Calcined gypsum used in the manufacture of gypsum products, such as wall plaster, alabastine, etc. (Weight and value of gypsum content only.)	90,926	973,238	83,611	832,045
Total sold or used	**578,301**	**2,243,100**	**645,020**	**2,198,598**

Imports into Canada and Exports of Gypsum, 1923 and 1924

—	1923		1924	
	Tons	Value	Tons	Value
		$		$
IMPORTS—				
Gypsum, crude (sulphate of lime)	3,654	39,336	3,252	63,156
Plaster of Paris or gypsum ground not calcined	78	3,253	102	2,174
Plaster of Paris, calcined and prepared wall plaster	3,617	54,591	3,969	62,770
Total	**7,349**	**97,180**	**7,323**	**128,100**
EXPORTS—				
Gypsum or plaster, crude	397,329	578,859	472,236	747,829
Plaster of Paris ground, and prepared wall plaster	4,654	92,478	5,226	83,927
Total	**401,983**	**671,337**	**477,462**	**831,756**

Iron Oxides

In 1924, the shipments of iron oxides from Canadian deposits totalled 7,357 tons valued at $91,366. These sales were approximately 3,000 tons lower than the production of 10,424 tons in the previous year.

Iron oxides are marketed in two forms—crude and calcined. Crude oxides are dried before shipment for use in the purification of illuminating gas, while the calcined product is ground, usually for consumption in the paint industry.

Magnesium Sulphate

No magnesium sulphate was produced in Canada during 1924, from the deposit near Ashcroft, British Columbia. In 1923 the Basque Chemical Company operated this deposit, producing 121 tons valued at $6,580.

Magnesium sulphate or epsom salts amounting to 2,239 tons evaluated at $54,139 was imported in the year under review.

Magnesite

Sales of calcined and dead-burned magnesite in Canada during 1924 amounted to 3,873 tons valued at $92,352; these figures showed a decrease from the shipments in the previous year, when 4,801 tons worth $134,382 was marketed. The total production was derived from deposits in Argenteuil County, Quebec.

Exports of Canadian magnesite were reduced to approximately fifty per cent of those in 1923.

Production, Imports and Exports of Magnesite, 1923 and 1924

—	1923		1924	
	Tons	Value	Tons	Value
		$		$
PRODUCTION—				
Calcined	120	3,705	3,873	92,352
Clinkered	4,681	130,677		
Total	**4,801**	**134,382**	**3,873**	**92,352**
IMPORTS—				
Magnesia pipe covering	–	141,926	–	121,046
Magnesite	244	9,223	280	8,980
Magnesite firebrick	–	120,453	–	91,553
EXPORTS—				
Magnesite, calcined	563	14,056	293	8,520

Mica

Shipments of Canadian mica during 1924 totalled 3,317 tons worth $286,645, a decrease of 208 tons in quantity and $40,329 in value. The quantity of scrap mica marketed showed a considerable decrease to a total of 5,541,356 pounds, or approximately 598,000 pounds less than in 1923. This material is ground and used extensively in the manufacture of prepared roofings. Exports of rough cobbed and thumb-trimmed mica from Canada increased materially, while mica splittings exported decreased 43 per cent.

Production of Mica in Canada, 1923 and 1924

Grade	1923			1924		
	Quantity	Value f. o. b. shipping point	Price per pound	Quantity	Value f. o. b. shipping point	Price per pound
	Lb.	$	$	Lb.	$	$
Rough cobbed	280,767	26,926	0·10	514,885	32,712	0·06
Thumb trimmed	419,130	87,769	0·21	413,645	80,922	0·20
Splittings	210,056	176,785	0·84	164,734	137,248	0·83
Scrap	6,139,076	35,494	0·005	5,541,356	35,763	0·006
Total	**7,049,029**	**326,974**	**0·047**	**6,634,620**	**286,645**	**0·03**

Exports of Mica from Canada, 1923 and 1924

	1923		1924	
	Tons	Value	Tons	Value
		$		$
Rough cobbed and thumb-trimmed	85	40,286	88	52,527
Mica splittings	502	624,110	285	424,503
Mica, scrap and waste	4,855	70,866	4,519	63,610
Mica, plate and manufactures of (micanite)	–	22,014	–	3,326
Total	–	**757,276**	–	**543,966**

Mineral Waters

Mineral waters produced in Canada during 1924 totalled 228,298 gallons valued at $15,221 These shipments were made from mineral springs located in Ontario and Quebec.

Under this section there has been included a record of all known shipments of natural mineral water sold to the public for medicinal purposes. The values given do not take into account any mineral water used at the springs for drinking or bathing purposes.

Natro-Alunite

The deposit of natro-alunite at Kyuquot Sound, Vancouver Island, British Columbia, was not operated during 1924. Shipments in 1923 amounted to 15 tons valued at $750.

Natural Gas

Natural gas produced in Canada in 1924 amounted to 15,122,684 thousand cubic feet valued at $6,178,435, or an average of 41 cents per thousand cubic feet.

The province of Ontario was the leading producer, accounting for 7,422,512 thousand cubic feet or 49 per cent of the total, and Alberta followed with 7,100,000 thousand cubic feet. New Brunswick produced 599,972 thousand cubic feet, a slight falling off from the total for 1923. By provinces, average prices received per thousand were: New Brunswick, 19 cents; Ontario, 57 cents, and Alberta, 26 cents.

Production of Natural Gas in Canada by Provinces, 1923 and 1924

Province	1923		1924	
	M cu. ft.	Value	M cu. ft.	Value
		$		$
New Brunswick	640,300	126,068	599,972	113,577
Ontario	8,128,413	4,066,244	7,422,512	4,214,798
Manitoba	200	60	200	60
Alberta	7,191,670	1,692,246	7,100,000	1,850,000
Total	**15,960,583**	**5,884,618**	**15,122,684**	**6,178,435**

Peat

The Alfred bog which was operated in previous years for experimental purposes by the Ontario and Federal Governments was taken over during 1924 by the Peat Fuels, Ltd. This company purposes manufacturing peat on a commercial basis by the same process which was used by the Ontario-Federal Committee.

Petroleum

The total production of crude petroleum in Canada during 1924 amounted to 160,830 barrels with a value of $470,985 as compared with 170,169 barrels, at $522,018, in 1923. New Brunswick producers received $3.83 per barrel; and those in Ontario $2.48 per barrel.

The Romney well on the shore of Lake Erie, Ontario attracted considerable attention during 1923 and produced 3,006 barrels during 1924. As this well was drilled after July 1st, 1923, under the change in the Petroleum Bounties Act no bounty was paid on the oil produced.

An excerpt from the *Petroleum Bounties Act* as enacted on June 30, 1923 has been given in several previous reports.

Production of Crude Petroleum in Canada, 1923 and 1924

—	1923				1924			
	Barrels	Value less bounty	Bounty paid	Total value	Barrels	Value less bounty	Bounty paid	Total value
		$	$	$		$	$	$
New Brunswick	8,826	31,992	3,650	35,642	5,561	18,520	2,793	21,313
Ontario—								
Petrolia and Enniskillen	64,159	157,830	33,683	191,513	60,916	149,427	24,327	173,754
Oil Springs	39,090	98,898	20,522	119,420	41,320	104,250	16,816	121,066
Moore Township	4,790	11,783	2,515	14,298	4,483	10,997	2,069	13,066
Sarnia Township	2,387	5,871	1,253	7,124	2,068	5,073	1,033	6,106
Plympton Township	872	2,146	458	2,604	525	1,288	234	1,522
Bothwell	27,665	68,056	14,524	82,580	26,700	65,655	10,728	76,383
Tilbury East	1,263	3,106	663	3,769	–	–	–	–
West Dover	6,306	15,513	3,311	18,824	3,898	9,585	1,740	11,325
Raleigh Township	302	744	159	902	783	1,925	299	2,224
Dutton	315	775	165	941	–	–	–	–
Onondaga	237	583	124	708	456	1,109	213	1,322
Moza Township	10,319	25,386	5,418	30,803	8,862	21,074	3,605	24,679
Thamesville	567	1,396	298	1,694	–	–	–	–
Elgin Township	279	685	146	831	–	–	–	–
Romney Township	849	2,138	–	2,138	3,006	7,196	–	7,196
Dunwich	–	–	–	–	1,150	2,852	–	2,852
Total for Ontario	159,400	394,910	83,239	478,149	154,167	380,431	61,064	441,495
Alberta	1,943	8,126	101	8,227	1,102	8,177	–	8,177
Total for Canada	**170,169**	**435,028**	**86,990**	**522,018**	**160,830**	**407,128**	**63,857**	**470,985**

Imports into Canada and Exports of Petroleum and its Products, 1923 and 1924

		1923		1924	
		Quantity	Value	Quantity	Value
			$		$
Imports—					
Crude petroleum in its natural state, ·7900 specific gravity or heavier at 60 degrees temperature, when imported by oil refiners to be refined in their own factories	Gals.	392,185,557	17,449,032	465,958,509	20,260,488
Crude petroleum, gas oils other than naphtha, benzine and gasoline lighter than ·8235 but not less than ·775 specific gravity at 60 degrees	"	475,842	38,908	139,745	10,875
Petroleum (not including crude petroleum imported to be refined or illuminating or lubricating oils) ·8235 specific gravity or heavier at 60 degrees temperature	"	108,506,938	4,206,193	94,104,526	4,122,333
Petroleum, imported by miners or mining companies or concerns, for use in the concentration of ores of metals in their own concentrating establishments	"	32,960	5,913	139,473	35,880
Petroleum crude not in its natural state, ·7900 specific gravity or heavier at 60 degrees temperature when imported by oil refiners to be refined in their own factories (May 12, 1923)	"	15,922	966	55,758	3,953
Kerosene and Illuminating Oils					
Coal oil and kerosene, distilled, purified or refined, n.o.p.	"	4,118,943	322,434	5,410,973	444,646
Illuminating oils, composed wholly or in part of the products of petroleum, coal, shale or lignite, costing more than 30 cents per gallon	"	42,474	16,296	10,655	4,215
Coal oil and kerosene, distilled, known as "engine distillates", ·725 specific gravity and heavier, but not heavier than ·770 specific gravity at 60 degrees temperature		8,203	962	20,420	2,942
Lubricating Oils					
Lubricating oils, composed wholly or in part of petroleum, and costing less than 25 cents per gallon	"	4,295,635	737,053	3,975,337	728,250
Lubricating oils, n.o.p.	"	3,901,048	1,573,897	4,521,086	1,714,403
Other Oils					
Gasoline under ·725 specific gravity at 60 degrees temperature	"	35,845,251	5,134,286	56,389,078	7,138,561
Gasoline ·725 specific gravity but not heavier than ·770 specific gravity at 60 degrees temperature	"	13,927,843	1,993,596	17,084,248	2,166,847
Gasoline, n.o.p.	"	177,566	32,750	284,115	38,745
All other oils, n.o.p.	"	248,888	86,958	260,901	119,088
Other Products of Petroleum					
Grease, axle	Lb.	2,981,849	176,216	2,853,720	165,694
Paraffine wax	"	1,034,921	63,695	837,317	65,782
Paraffine wax candles	"	176,487	32,516	202,565	36,884
Vaseline and all similar preparations of petroleum for toilet, medicinal or other purposes		-	268,267	-	195,457
Petroleum, products of, n.o.p.	Gals.	1,712,665	299,388	1,298,590	242,996
Total		-	**32,439,326**	-	**37,498,039**
Exports—					
Oil, coal and kerosene, crude	Gals.	2,384,899	138,381	18,263,236	529,497
Oil, coal and kerosene, refined	"	1,450,051	139,924	1,525,427	165,520
Oil, gasoline and naphtha	"	1,217,298	263,326	1,403,716	256,966
Oil, mineral, n.o.p.	"	1,200,347	223,511	627,671	161,259
Wax, mineral	Cwt.	66,274	206,575	33,171	147,810
Total		-	**971,717**	-	**1,261,053**

Phosphate

No production of phosphate rock in Canada was reported for 1924. In the previous year shipments of 30 tons valued at $600 were made from stock on hand. Imports, principally Florida phosphate, amounted to 11,668 tons valued at $56,965, as compared with 15,845 tons at $86,192 in the previous year.

Pyrites

The total quantity of pyritic ore mined in Canada during 1924 was 12,725 tons. Sales of pyrites (iron and copper) were reported at 23,571 tons worth $102,688. The total sulphur content of the 1924 shipments was 9,585 tons; the percentage of sulphur varied from 36·2 per cent to 49 per cent with an average of 40·6 per cent.

The Eustis Mining Company in Quebec made some shipments of pyrites to Capelton in 1924. In Ontario, the Grasselli Chemical Company, Limited, and the Nichols Chemical Company, Limited were the only shippers; in British Columbia the Hidden Creek mine at Anyox and the Sullivan mine at Kimberley were active.

Production, Imports and Exports of Pyrites, 1923 and 1924

	1923		1924	
	Tons	Value	Tons	Value
		$		$
PRODUCTION BY PROVINCES—				
Quebec	–	–	4,041	16,406
Ontario	25,134	99,716	11,429	44,542
British Columbia	3,457	13,304	8,101	41,740
Total	**28,591**	**113,020**	**23,571**	**102,688**
IMPORTS—				
Brimstone, or sulphur in roll or flour	135,767	1,803,550	131,547	1,776,978
EXPORTS—				
Sulphur contained in pyrites	9,670	46,514	219	1,081

Quartz

There was a considerable falling-off in the production of quartz in Canada during 1924. Shipments totalled 154,708 tons valued at $327,990 as compared with 264,076 tons at $599,250 in 1923.

The quartz-crushing plant at St. Canut, Quebec, owned by Silico, Limited was operated during the year; the output of this plant was about 18,000 tons.

Imports of silex, ground or unground, and flint were slightly lower than in the previous year.

Production in Canada and Imports of Quartz, 1923 and 1924

	1923		1924	
	Tons	Value	Tons	Value
		$		$
PRODUCTION—				
Quebec	13,376	68,936	17,676	86,816
Ontario	225,110	483,285	112,032	194,174
British Columbia	25,590	47,029	25,000	47,000
Total	**264,076**	**599,250**	**154,708**	**327,990**
IMPORTS—				
Silex or crystallized quartz, ground or unground	2,303	57,940	1,941	49,552
Flint	6,327	81,704	6,016	64,753

Salt

Although the quantity of salt produced in Canada during 1924 was slightly higher than in the previous year, the sales value declined $353,900 or 20 per cent. Shipments totalled 205,780 tons with a reported value of $1,359,616.

As in previous years the province of Ontario contributed 97 per cent of the total production, while the Malagash mine in Nova Scotia accounted for the balance.

Imports of salt, all grades, into Canada totalled 182,886 tons evaluated at $1,134,390.

Production of Salt in Canada, by Grades, 1923 and 1924

Grade	1923			1924		
	Manufactured	Sold	Value of salt sold (Not including packages)	Manufactured	Sold	Value of salt sold (Not including packages)
	Tons	Tons	$	Tons	Tons	$
Table and dairy	42,371	42,468	764,293	41,050	41,013	661,088
Common fine	41,806	36,924	308,039	36,327	37,032	262,562
Common coarse	31,057	31,282	271,146	36,737	34,473	265,146
Land salt	3,744	3,713	17,628	5,082	5,049	25,139
Other grades	7,908	7,911	72,063	7,654	7,873	65,340
Brine for chemical works (Salt equivalent sold or used)	80,099	80,099	280,347	80,340	80,340	80,340
Total	**206,985**	**202,397**	**1,713,516**	**207,190**	**205,780**	**1,359,616**
Value of packages	–	–	533,822	–	–	526,319
Grand Total	**206,985**	**202,397**	**2,247,338**	**207,190**	**205,780**	**1,885,935**

Imports into Canada and Exports of Salt, 1923 and 1924

—	1923		1924	
	Tons	Value	Tons	Value
		$		$
IMPORTS—				
Salt, for the use of the sea or gulf fisheries	67,941	294,526	71,179	339,557
Salt in bulk, n.o.p.	65,118	317,773	68,199	332,649
Salt, n.o.p. in bags, barrels, etc.	38,799	455,306	43,508	462,184
Total	**171,858**	**1,067,605**	**182,886**	**1,134,390**
EXPORTS	861	10,201	965	10,795

Sodium Carbonate

Shipments of sodium carbonate crystals in Canada during 1924 amounted to 513 tons at $10,260. In the preceding year 265 tons with a valuation of $3,975 were shipped. The deposit of sodium carbonate near Clinton, Lillooet district, British Columbia was operated during the year.

The production of soda ash from salt brine is carried on by the Brunner Mond, Limited, at Amherstburg, Ontario.

Sodium Sulphate

Shipments of sodium sulphate in 1924 from deposits in Saskatchewan totalled 118 tons valued at $1,179 as against 733 tons at $10,189 in 1923.

Importations of salt cake totalled 36,022 tons evaluated at $673,322 during 1924, while in the previous twelve months, 30,967 tons worth $684,604 was imported. Soda, bisulphate of, or nitre cake, amounting to 18,859 tons, at $87,961; and glauber's salt to a total of 906 tons at $14,684 were also imported.

Talc and Soapstone

An appreciable improvement was noted in the talc and soapstone industry in Canada during 1924, when 11,461 tons was mined as compared with 10,235 tons in 1923. The total shipments reported amounted to 11,209 tons valued at $152,032; while in the previous year 10,366 tons worth $150,507 was shipped.

Customs' records from April 1, 1924 to the end of the calendar year showed importations of 2,969 tons of talc and soapstone. Exports were slightly higher than those recorded in 1923.

Production in Canada and Exports of Talc and Soapstone, 1923 and 1924

	1923		1924	
	Tons	Value	Tons	Value
		$		$
PRODUCTION—				
Soapstone	607	20,843	491	21,455
Talc	9,759	129,664	10,718	130,577
Total	**10,366**	**150,507**	**11,209**	**152,032**
IMPORTS—				
Talc or soapstone ground or unground*	–	–	2,968	50,800
EXPORTS—				
Talc, refined	7,233	90,239	7,876	98,571

* Nine months only.

STRUCTURAL MATERIALS AND CLAY PRODUCTS

The total value of structural materials and clay products made in Canada from domestic raw materials during 1924, was $33,228,919 as compared with $37,751,381 in 1923.

Contracts awarded for building and construction projects in Canada during 1924, as reported by the *MacLean Building Review* were valued at $276,261,100, a decrease of $37,993,200 from the 1923 total of $314,254,300. According to the classification given in the same publication, these awards were as follows: residential buildings, $91,224,800; business, $73,666,700; industrial $21,765,000; and engineering, $89,604,600.

Statistics of Labour Disputes in the Building Trades in Canada, 1922, 1923 and 1924

	1922	1923	1924
Number of disputes	21	9	13
Employees involved	1,831	1,284	883
Loss in working days	39,667	12,824	7,850

Cement

The total mill output of cement in Canada in 1924 was 7,766,108 barrels, an increase of 77,912 barrels over the 1923 total. Shipments for the year amounted to 7,499,372 barrels valued at $13,445,156, a decrease in quantity of 44,217 barrels and in value of $1,619,505.

By provinces, the average selling price, f.o.b. plant, was as follows: Quebec, $1.74; Ontario, $1.59; Manitoba, $2.60; Alberta, $2.37; and British Columbia, $2.63.

Cement consumption in Canada during the year was 17 per cent less than recorded for 1913. In comparison with last year the apparent consumption of the commodity increased 4 per cent.

Customs' records for 1924 showed a decrease in the exports of cement of 340,231 barrels, while imports increased 10,000 barrels. A falling-off in price was noted in the imports: the average price per barrel in 1924 was $2.50 as against $4.25 in 1923.

Summary Statistics of the Cement Industry in Canada, 1923 and 1924

—	1923		1924	
	Barrels	Value	Barrels	Value
		$		$
Output	7,688,196	-	7,766,108	-
Sold or used	7,543,589	15,064,661	7,499,372	13,445,156
Stocks, December 31	1,251,546	-	1,518,282	-
Imports—				
Portland	17,697	75,294	27,672	69,320
Manufactures	-	86,974	-	9,772
Exports	493,751	824,811	153,520	213,845
Consumption	7,067,535	-	7,373,524	-

Clay Products

Under mineral production the clay and clay products group includes the production from domestic clays of brick, drain tile, sewer pipe, pottery, tile other than drain, kaolin or china clay and refractories—fireclay, fire brick, fireclay blocks and shapes. The production of these commodities in Canada during 1924 was valued at $8,627,572, a decrease of 17·7 per cent from the 1923 total of $10,483,016. Ontario's sales for the year amounted to only $4,553,857 as compared with $6,270,615 in 1923; this accounted for most of the loss in production.

A new schedule was drafted during the year in order to compile the data for this industry in the most valuable form to the producer. The co-operation of the Canadian National Clay Products Association was obtained in order to draw up a more applicable form.

Production of Clay Products in Canada by Provinces, 1923 and 1924

——	1923	1924
	$	$
Prince Edward Island	-	3,340
Nova Scotia	413,974	352,362
New Brunswick	62,587	78,988
Quebec	2,439,598	2,401,697
Ontario	6,270,615	4,553,857
Manitoba	160,134	98,250
Saskatchewan	119,405	109,994
Alberta	590,565	539,581
British Columbia	426,138	489,503
Canada	**10,483,016**	**8,627,572**

Production in Canada, Imports and Exports of Clay and Clay Products, 1923 and 1924

—		1923		1924	
		Quantity	Value	Quantity	Value
			$		$
SALES—					
Bricks, common	M	250,565	3,884,474		
Bricks, pressed	"	73,400	1,461,483		
Bricks, hollow building	"	7,720	620,329		
Bricks, moulded and ornamental	"	64,682	1,355,360	Itemized in next following table	
Fire brick	"	6,122	295,037		
Fire clay	Tons	2,685	24,158		
Fire clay blocks and shapes		–	81,345		
Fireproofing and hollow porous blocks		–	379,805		
Kaolin	Tons	163	2,369		
Paving brick	No.	–	–		
Pottery from domestic clay		–	229,547		
Sewer pipe	Tons	70,252	1,616,324		
Architectural terra-cotta and tile other than drain		–	209,471		
Tile drain	M	10,599	323,314		
Total		–	**10,483,016**	–	**8,627,572**
IMPORTS—					
Bath brick		–	1,938	–	1,799
Building brick	M	5,381	140,441	5,425	124,983
Building blocks		–	77,972	–	63,559
Clays—					
China	Cwt.	342,408	242,860	390,613	250,113
Fire	"	1,070,122	223,628	886,091	186,696
Pipe		–	1,161	–	847
Other clays		–	90,515	–	56,590
Drain tile, unglazed		–	2,041	–	3,014
Drain and sewer pipe		–	61,868	–	68,449
Earthenware and chinaware		–	5,067,489	–	4,124,607
Brick, fire, other, valued at not less than $100 per M, rectangular shaped; the dimensions of each not to exceed 125 cubic inches for use exclusively in the construction or repair of a furnace, kiln, etc		–	970,324	–	23,413
Brick, fire, n.o.p., for use exclusively in the construction or repair of a furnace, kiln or other equipment of a manufacturing establishment—(From May 12, 1923)				–	812,039
Firebrick, n.o.p		–	610,243	–	284,388
Firebrick, chrome—(From May 12, 1923)		–	4,000	–	–
Magnesite brick		–	120,453	–	91,553
Silica brick		–	216,642	–	154,251
Paving brick	M	3,243	90,767	2,559	69,493
Other clay manufactures		–	241,320	–	842,577
Total		–	**8,172,662**	–	**7,158,371**
EXPORTS—					
Building brick	M	4,069	42,742	2,988	38,105
Clay—					
Unmanufactured	Cwt.	2	52	1,346	1,127
Manufactures		–	109,957	–	109,295
Earthenware		–	432,092	–	72,839
Porcelain insulators*		–	–	–	322,206
Total		–	**584,843**	–	**543,572**

* Prior to April 1924, porcelain insulators included with earthenware.

Production of Clay Products in Canada, 1924.

Kind			Quantity	Total selling value
				$
Brick: Soft mud process	Face	No.	18,466,691	361,254
	Common	"	78,577,942	1,180,399
Stiff mud process (wire cut)	Face	"	44,653,834	1,079,121
	Common	"	81,532,348	1,228,373
Dry press	Face	"	42,525,053	879,866
	Common	"	9,621,492	117,998
Fancy or ornamental brick (including special shapes, embossed and enamelled brick		"	13,204,506	348,201
Sewer brick		"	750,000	16,580
Firebrick from domestic clay		"	4,764,159	211,417
Fireclay		Ton	202	1,672
Fireclay blocks and shapes			–	77,107
Structural tile: Hollow blocks (including fireproofing and load-bearing tile)		Ton	95,639	925,571
Roofing tile		No.	7,377	917
Floor tile (quarries)		Sq. ft.	352,301	17,439
Drain tile		No.	12,685,692	358,142
Sewer pipe (including copings, flue linings, etc.)		Ton	71,303	1,575,034
Pottery, glazed or unglazed			–	242,481
Total			–	**8,627,572**

Lime

Corresponding with the general decrease in the production of all structural materials in Canada in 1924, lime sales for the year declined 8 per cent, in quantity. This year's production amounted to 9,213,456 bushels consisting of 7,869,999 bushels of quicklime and 1,343,457 bushels of hydrated lime with a total value of $3,062,450.

The average price obtained for quicklime was 32 cents per bushel, while hydrated lime sold for $11.89 per ton.

Importations of lime totalled 4,418 tons at $46,578; while exports were recorded at 22,750 tons worth $411,122.

Production of Lime in Canada, in 1924

Province	Quicklime		Hydrated Lime		Total Value
	Quantity	Value	Quantity	Value	
	Bushels	$	Tons	$	$
New Brunswick	223,242	108,890	–	–	108,890
Quebec	2,167,275	589,881	5,846	61,275	651,156
Ontario	4,439,923	1,311,801	37,004	447,130	1,758,931
Manitoba	439,229	136,518	–	–	136,518
Alberta	82,753	35,930	14	196	36,126
British Columbia	517,577	320,312	4,157	50,517	370,829
Total	**7,869,999**	**2,503,332**	**47,021**	**559,118**	**3,062,450**

Sand and Gravel

According to reports at hand, there was an appreciable decrease in the production of sand and gravel in Canada during 1924. The total for the year under review was 11,793,098 tons evaluated at $2,535,613 while in the previous twelve months 12,752,515 tons worth $3,016,518 were produced.

Imports into Canada in 1924 were as follows: sand and gravel 150,868 tons appraised at $118,397; silica sand for the manufacture of glass and carborundum and for use in foundries, 131,778 tons at $324,279.

Slate

No shipments of slate, from deposits in the province of Quebec, were reported for 1924 During the previous year, 1,836 tons of crushed green and red slate valued at $17,289 were produced.

It will be noted upon examining the table given below that the imports of roofing slate were slightly lower than in 1923.

Production in Canada and Imports of Slate, 1923 and 1924

	1923		1924	
	Quantity	Value	Quantity	Value
		$		$
PRODUCTION..... Tons	1,836	17,289	-	-
IMPORTS—				
Roofing..... Squares	5,905	67,507	5,718	71,898
School-writing.....	-	111,922	-	74,879
Pencils.....	-	9,027	-	7,601
Mantles and manufactures of slate, n.o.p.....	-	77,390	-	66,624
Total.....	-	**265,846**	-	**220,402**

Stone

Stone production in Canada during 1924 totalled 4,198,318 tons with a valuation of $5,641,928 as compared with 4,111,334 tons at $5,903,289 in 1923. In comparison with last year's sales the quantity showed an increase of 86,984 tons while the value declined $261,361. Of the total shipments recorded Ontario accounted for 60 per cent and Quebec 31 per cent.

Importations of stone into Canada were evaluated at $910,157 and the exports at $170,113.

Production of Stone in Canada by Provinces, 1923 and 1924

Province	1923		1924	
	Tons	Value	Tons	Value
		$		$
Nova Scotia.....	138,682	177,090	77,092	129,875
New Brunswick.....	22,448	166,083	20,630	162,993
Quebec.....	1,094,816	2,322,745	1,314,009	2,734,594
Ontario.....	2,638,984	2,869,228	2,531,793	2,230,544
Manitoba.....	51,304	118,277	58,911	117,990
Alberta.....	-	-	16,698	19,317
British Columbia.....	165,100	249,866	179,185	246,615
Canada.....	**4,111,334**	**5,903,289**	**4,198,318**	**5,641,928**

Imports into Canada and Exports of Stone by Kinds, 1923 and 1924

	1923		1924	
	Tons	Value	Tons	Value
		$		$
IMPORTS—				
Building stone.....	-	403,550	-	267,699
Granite.....	-	158,864	-	140,237
Marble.....	-	293,806	-	291,380
Refuse.....	392,819	225,565	281,824	174,738
Manufactures of stone, n.o.p.....	-	52,048	-	36,103
Total.....	-	**1,133,833**	-	**910,157**
EXPORTS—				
Crushed.....	89,434	159,088	59,984	100,873
Ornamental, rough.....	3,165	30,350	3,390	45,195
Building, rough.....	1,302	12,575	2,059	18,680
Dressed.....	-	20,227	-	5,365
Total.....	-	**222,240**	-	**170,113**