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CANADA  
DEPARTMENT OF MINES  
HON. LOUIS CODERRE, MINISTER; R. G. McCONNELL, DEPUTY MINISTER

MINES BRANCH  
EUGENE HAANEL, Ph.D., DIRECTOR

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PRELIMINARY REPORT

THE

MINERAL PRODUCTION OF  
CANADA

DURING THE CALENDAR YEAR  
1914

PREPARED BY  
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*Chief of the Division of Mineral Resources and Statistics.*

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OTTAWA  
GOVERNMENT PRINTING BUREAU

75377—1

1915

**No. 333.**



EUGENE HAANEL, Ph.D.,  
Director of Mines.

SIR,—I beg to submit herewith, the annual preliminary report on the mineral production of Canada in 1914.

The figures for production in 1914, while subject to revision, are based upon direct returns from mine and smelter operators and are fairly complete.

Special acknowledgements are due to those operators who have promptly furnished reports of their operations during the year.

When complete returns shall have been received the annual report will be prepared containing in greater detail the final statistics as well as information relating to exploration, development, prices, markets, imports and exports, etc.

I am, sir, your obedient servant,

JOHN McLEISH.

Division of Mineral Resources and Statistics,  
February 24, 1915.



# PRELIMINARY REPORT OF THE MINERAL PRODUCTION OF CANADA, 1914.

## STATISTICS SUBJECT TO REVISION.

The preliminary report on the mineral production in Canada in 1914 presented herein shows a total value of the production during the year just closed of \$128,475,499. The total value of the production in 1913 was \$145,634,812 compared with which the 1914 output shows a decrease of \$17,159,313 or 11.8 per cent. The average production per capita was \$15.91 as against \$18.77 in 1913; \$18.27 in 1912, and \$14.93 in 1910.

The production of the more important metals and minerals is shown in the following tabulated statement in which the figures are given for the two years 1913 and 1914 in comparative form, and the increase or decrease in value shown. Tabulated statements in greater detail will be found on subsequent pages of this pamphlet.

		1913.		1914.		Increase (+) or Decrease (-) in Value.
		Quantity.	Value.	Quantity.	Value.	
Copper.....	Lbs.	76,976,925	\$11,753,606	75,738,386	\$10,301,935	- \$ 1,451,671
Gold.....	Ozs.	802,973	16,598,923	770,374	15,925,044	- 673,879
Pig iron.....	*Tons.	1,128,967	16,540,012	783,164	10,002,856	- 6,537,156
Lead.....	Lbs.	37,662,703	1,754,705	36,337,765	1,627,568	- 127,137
Nickel.....	"	49,676,772	14,903,032	45,517,937	13,655,381	- 1,247,651
Silver.....	Ozs.	31,845,803	19,040,924	27,544,231	15,097,269	- 3,943,655
Other metallic products.....			1,313,732		1,123,919	- 189,813
Total.....			81,904,934		67,733,97	- 14,170,962
Less pig iron credited to imported ores.....	Tons.	1,055,459	15,543,583	687,420	8,863,944	- 6,679,639
Total metallic.....			66,361,351		58,870,028	- 7,491,323
Asbestos and Asbestic.....	Tons.	161,086	3,849,925	117,573	2,909,806	- 940,119
Coal.....	"	15,012,178	37,334,940	13,594,984	33,433,108	- 3,901,832
Gypsum.....	"	636,370	1,447,739	510,663	1,137,157	- 310,582
Natural gas.....	M. ft.	20,477,838	3,309,381	21,047,028	3,511,302	+ 201,921
Petroleum.....		228,080	406,439	214,805	343,124	- 63,315
Pyrites.....	Tons.	158,566	521,181	224,958	735,514	+ 214,333
Salt.....	"	100,791	491,280	107,038	493,648	+ 2,368
Cement.....	Brls.	8,658,805	11,019,418	7,172,480	9,187,924	- 1,831,494
Clay products.....			9,504,314		7,090,898	- 2,413,416
Lime.....	Bush.	7,558,484	1,609,398	6,245,189	1,247,517	- 361,881
Stone.....			5,504,639		5,593,485	+ 88,846
Miscellaneous non-metallic.....			4,274,807		3,921,988	- 352,819
Total non-metallic.....			79,273,461		69,605,471	- 9,667,990
Grand total.....			145,634,812		128,475,499	- 17,159,313

\*Short tons throughout.

In presenting a total valuation of the mineral production as is here given, it should be explained that the production of the metals copper, gold, lead, nickel and silver is given as far as possible on the basis of the quantities of metals recovered in smelters in Canada, or probably recovered from ores exported, and the total quantities in each case are valued at the average market price of the refined metal in a generally recognized market.



The quantities thus given will differ from those which represent metal contents of ore shipped by amounts due (1) to losses in smelting (2) to the "lag" or lapse of time between the ore shipment and its treatment in the smelter. Thus the production of refined lead during the past two years has been very much lower than that reported as contained in ores shipped from the mines, the difference being due both to smelter losses and the large accumulation of ore at the smelter.

The metal miner is usually paid for his product on the basis of the value of the refined metals less a variety of deductions and in many cases it would be exceedingly difficult to obtain a record of the net value received. It is for this reason and for the facility of comparisons that the refined values are used.

It will be observed that there has been a general falling off in the production of nearly all mine products, the notable exceptions being, pyrites, salt, and natural gas. In the case of pyrites there is an increase of about 42 per cent, and about 6 per cent in quantity of salt produced. The number of cubic feet of natural gas produced shows an increase of about 3 per cent, with an increase of over 6 per cent in value.

The falling off in the production of the metals is no doubt to be ascribed in large measure to the conditions resulting from the war. Especially is this true in the case of the metals: copper, nickel, and silver. The cutting off of markets and the closing of metal exchanges with the consequent cessation of market quotations resulted in the almost immediate closing down or restriction of operation at many properties. However, before the close of the year, many of these adverse conditions had been adjusted although prices had fallen considerably.

The actual quantities of copper and lead produced were but little less than in the previous year; nickel showed a decrease of 8 per cent, and silver of 13.5 per cent in quantity.

The total values, because of lower prices, showed much larger percentage decreases.

The iron industry was undoubtedly affected by industrial conditions of depression and shows a falling off of 30 per cent in tonnage of pig iron made.

The total value of the metallic production in 1914 was \$58,870,028 as against \$66,361,351, a decrease of \$7,491,323 or 11 per cent.

The production of non-metallic products also shows a large falling off in 1914, the total value for the year being \$69,605,471 as against \$79,273,461 in 1913, a decrease of \$9,667,990 or 12.19 per cent.

The decrease is most pronounced in the case of coal, asbestos and gypsum and in those products such as cement, clay products (building brick, sewer pipe, etc.) and lime, generally classed as structural materials, although there was a small increase in the production of stone quarries.

Industrial depression the culmination of over development and extravagant land speculation is largely responsible for this sudden reverse although the asbestos output would be restricted by the disturbance in foreign markets and the coal production would also be affected by the restricted metallurgical operations. Reference has already been made to the increased production of pyrites, salt and natural gas.

There were also slight increases in the production of white arsenic, feldspar, grindstones, ochres, phosphate and tripolite. Asbestos shows a decrease of 27 per cent in tonnage and 24 per cent in value, coal a decrease of 10 per cent in tonnage and 9 per cent in value, petroleum a decrease of

5·8 per cent in quantity and 15·6 per cent in value, clay products 25 per cent in total value and lime 17·4 per cent in quantity and 22·5 per cent in value.

### MINERAL PRODUCTION BY PROVINCES 1913 and 1914.

	1913.		1914.	
	Value of Production.	Per cent of Total.	Value of Production.	Per cent of total.
	\$	%	\$	%
Nova Scotia.....	19,376,183	13·30	17,514,786	13·63
New Brunswick.....	1,102,613	0·76	1,034,706	0·81
Quebec.....	13,475,534	9·25	12,259,637	9·54
Ontario.....	59,167,749	40·63	52,147,973	40·59
Manitoba.....	2,214,496	1·52	2,428,902	1·89
Saskatchewan.....	881,142	0·60	710,840	0·55
Alberta.....	15,054,046	10·34	12,773,669	9·94
British Columbia.....	28,086,312	19·29	24,202,924	18·84
Yukon.....	6,276,737	4·31	5,402,062	4·21
Dominion.....	145,634,812	100·00	128,475,499	100·00

The record of production by provinces given in the above table shows the relative importance of the several provinces in the same order as the previous year. A decreased production is shown in each province with the exception of Manitoba and in this case the increase is due chiefly to the operation of the new cement mill near Winnipeg by the Canada Cement Co. and the inclusion of a more complete record of the production of sands and gravels. Ontario again has the largest output with a value of \$52,147,973, or 40·59 per cent of the total, practically the same proportion as in the previous year. British Columbia is second with a value of \$24,202,924 or 18·8 per cent of the total; Nova Scotia is third with a production valued at \$17,514,786, or 13·6 per cent; Alberta fourth with \$12,773,669 or 9·94 per cent; Quebec fifth with \$12,259,637, or 9·5 per cent. The Yukon sixth with \$5,402,062 or 4·2 per cent; Manitoba seventh with \$2,428,902 or 1·89 per cent; New Brunswick eighth with \$1,034,706 and Saskatchewan ninth with \$710,840, each less than one per cent.

### Annual Mineral Production in Canada since 1886.

Year.	Value of production.	Value per capita.	Year.	Value of production.	Value per capita.
	\$	\$ cts.		\$	\$ cts.
1886.....	10,221,255	2 23	1900.....	64,420,877	12 04
1887.....	10,321,331	2 23	1901.....	65,797,911	12 16
1888.....	12,518,894	2 67	1902.....	63,231,836	11 36
1889.....	14,013,113	2 96	1903.....	61,740,513	10 83
1890.....	16,763,353	3 50	1904.....	60,082,771	10 27
1891.....	18,976,616	3 92	1905.....	69,078,999	11 49
1892.....	16,623,415	3 39	1906.....	79,286,697	12 81
1893.....	20,035,082	4 04	1907.....	86,865,202	13 75
1894.....	19,931,158	3 98	1908.....	85,557,101	13 16
1895.....	20,505,917	4 05	1909.....	91,831,441	13 70
1896.....	22,474,256	4 38	1910.....	106,823,623	14 93
1897.....	28,485,023	5 49	1911.....	103,220,994	14 42
1898.....	38,412,431	7 32	1912.....	135,048,296	18 27
1899.....	49,234,005	9 27	1913.....	145,634,812	18 77
			1914.....	128,475,499	15 91

**THE MINERAL PRODUCTION OF CANADA IN 1914.**  
Subject to Revision.

Product.	Quantity.	Value.
<b>METALLIC.</b>		<b>\$</b>
Copper, value at 13.602 cents per pound.....	Lbs. 75,738,386	10,301,935
Gold.....	Ozs. 770,374	15,925,044
Pig iron from Canadian ore.....	*Tons. 95,744	1,138,912
Iron ore sold for export.....	" 60,410	135,300
Lead, value at 4.479 cents per pound.....	Lbs. 36,337,765	1,627,568
Nickel, value at 30 cents per pound.....	" 45,517,937	13,655,381
Silver, value at 54.811 cents per oz.....	Ozs. 27,544,231	15,097,269
Cobalt and nickel oxides.....	Lbs. 1,387,101	595,999
Cobalt material and residues.....	" 82,620	82,620
Zinc ore.....	Tons. 13,140	310,000
Total.....		58,870,028
<b>NON-METALLIC.</b>		
Actinolite.....	Tons. 119	1,304
Arsenic, white.....	" 1,737	104,015
Asbestos.....	" 96,542	2,892,266
Asbestic.....	" 21,031	17,540
Chromite.....	" 136	1,210
Coal.....	" 13,594,984	33,433,108
Corundum.....	" 548	72,176
Feldspar.....	" 18,060	70,824
Graphite.....	" 1,647	107,203
Grindstones.....	" 4,078	54,497
Gypsum.....	" 510,663	1,137,157
Magnesite.....	" 358	2,240
Manganese.....	" 28	1,120
Mica.....	"	102,315
Mineral pigments—		
Barytes.....	" 612	6,129
Ochres.....	" 5,890	51,725
Mineral water.....		122,574
Natural gas.....	M. cu. ft. 21,047,028	3,511,302
Peat.....	Tons. 685	2,470
Petroleum.....	Brls. 214,805	343,124
Phosphate.....	Tons. 954	7,275
Pyrites.....	" 224,956	735,514
Quartz.....	" 54,148	83,583
Salt.....	" 107,038	493,648
Talc.....	" 10,808	40,418
Tripolite.....	" 650	13,000
Total.....		43,407,737
<b>STRUCTURAL MATERIALS AND CLAY PRODUCTS.</b>		
Cement, Portland.....	Brls. 7,172,480	9,187,924
Clay products—		
Brick, common, pressed, paving.....		4,809,046
Sewerpipe.....		1,102,100
Fireclay, drain tile, pottery, etc.....		1,169,752
Kaolin.....	Tons. 1,000	10,000
Lime.....	Bush. 6,245,189	1,247,517
Sand and gravel.....	"	2,448,738
Sand-lime brick.....		624,335
Slate.....	Sq. 1,075	4,837
Stone—		
Granite.....		2,179,930
Limestone.....		2,730,438
Marble (not complete).....		192,533
Sandstone.....		490,584
Total structural materials and clay products.....		26,197,734
All other non-metallic.....		43,407,737
Total value, metallic.....		58,870,028
Grand total, 1914.....		128,475,499

\*Tons of 2,000 pounds.



## Metal Prices.

	1909.	1910.	1911.	1912.	1913.	1914.
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Copper, New York.....	12.982	12.738	12.376	16.341	15.269	13.602
Lead ".....	4.273	4.446	4.420	4.471	4.370	3.862
" London.....	2.839	2.807	3.035	3.895	4.072	4.146
" Montreal*.....	3.268	3.246	3.480	4.467	4.659	4.479
Nickel, New York.....	40.000	40.000	40.000	40.000	40.000	40.000
Silver, ".....	51.503	53.486	53.304	59.835	59.791	54.811
Spelter, ".....	5.503	5.520	5.758	6.943	5.648	5.213
Tin, ".....	29.725	34.123	42.281	46.096	44.252	34.301

\*Quotations furnished by Messrs. Thomas Robertson & Company, Montreal, Que.

## SMELTER PRODUCTION.

Statistics of the production of copper, lead, and silver smelters and refineries, showing the tonnage of ore treated, the matte, blister, base bullion, or refined metal produced, have been collected by the Mines Branch since 1908.

The total quantity of ores and concentrates treated in these smelters during 1914 was 2,649,935 tons (including 58,894 tons of imported ore), as compared with 3,037,391 tons in 1913. The largest proportion of the total tonnage, about 61 per cent, in 1914, consists of the copper-gold-silver ores of British Columbia, chiefly from the Boundary (Phoenix and Greenwood), Rossland and Coast (Britannia, Texada Island and Granby Bay) districts. The nickel-copper ores of the Sudbury district, Ontario, contributed about 35.7 per cent of the tonnage, the balance being lead ores and other ores treated in lead furnaces and the silver cobalt ores of Ontario treated in silver smelters. Gold and silver ores treated by cyanide processes are not included in this record.

The quantities of the several classes of ores smelted during the past seven years, have been as follows:—

Year.	Nickel-copper ores.	Silver-Cobalt ores.	Lead ores.	Copper-gold silver ores	Totals.
1908.....	360,180	7,182	53,545	1,797,488	2,218,395
1909.....	462,336	8,384	54,539	1,850,889	2,376,148
1910.....	628,947	9,466	57,549	1,987,752	2,683,714
1911.....	610,834	9,330	55,498	1,517,981	2,193,553
1912.....	725,065	8,097	59,932	2,212,316	3,005,410
1913.....	823,403	6,124	88,100	2,119,754	3,037,391
1914.....	947,053	5,661	71,064	1,612,197	2,649,935

The products obtained in Canada from the treatment of these ores include: pig lead produced at Kingston, Ont., (furnace idle in 1914); refined pig lead and lead pipe produced at Trail, B.C., and fine gold, fine silver,

copper sulphate and antimony produced from the residues of the Trail lead refinery; silver bullion, white arsenic, nickel oxide and cobalt oxide produced in Ontario from the Cobalt district ores. In addition to these refined products, blister copper, copper matte, nickel-copper matte, cobalt material or mixed nickel and cobalt oxides are produced and exported for refining.

The aggregate results of smelting and refining operations may be summarized as shown in the next table. Unfortunately the figures cannot be taken to represent the total production from smelting ores mined in Canada, since considerable quantities of copper and silver ores are still shipped to other smelters outside of Canada for smelting.

### Smelter and Refinery Production in Canada.

Smelter products obtained and exported for refining.	1911.	1912.	1913.	1914.
	Tons.	Tons.	Tons.	Tons.
(1) Blister copper.....	10,710	17,063	15,270	13,238
(2) Copper matte.....	11,320	6,727	5,159	6,291
(3) Nickel-copper matte.....	32,607	41,925	47,150	46,396
(4) Cobalt material.....	630	642	122	101

  

	1912.		1914.	
	Refined products	Metals contained in matte, blister, and base bullion.	Refined products.	Metals contained in matte, blister, and base bullion
Gold.....Ozs	11,977	213,279	11,088	170,818
Silver....."	13,789,709	934,601	11,096,861	873,400
Lead.....Lbs	37,923,043		36,443,706	
Copper....."		59,245,722		59,237,016
Copper sulphate....."	130,533		152,060	
Nickel....."		49,676,772		45,517,937
Cobalt oxide....."	660,079		895,789	
Nickel oxide....."	268,304		391,312	
White arsenic....."	3,384,249		3,474,322	

(1) Blister copper carrying gold and silver values.

(2) Copper matte

(3) Bessemer nickel-copper carrying small gold and silver values as well as metals, of the platinum group.

(4) Cobalt material carrying nickel and silver values.

### Gold.

The total production of gold, in placer and mill bullion and in smelter products in 1914, is estimated at 770,374 fine ounces valued at \$15,925,044 as compared with 802,973 fine ounces valued at \$16,598,923 in 1913, showing a decrease of \$673,879 or about 4 per cent.

Of the total production in 1914, about \$5,695,508 was derived from placer and alluvial mining—\$6,050,690 in bullion from milling ores, and

\$4,228,846 from matte, blister copper and other smelter products, etc. In 1913, of the total production, about \$6,346,072 were derived from alluvial workings; \$5,185,544 in bullion from milling ores, and \$5,067,307 from smelter products derived from ores, concentrates, etc., smelted.

The production in Nova Scotia and Quebec is small compared with the other provinces but shows an increase of over 25 per cent in 1914.

The Ontario production \$5,546,356 shows an increase of over a million dollars due to the extension of milling facilities in the Porcupine field.

No records have been received with respect to gold production in the Beaver Lake district of Saskatchewan or of recoveries from the river bars near Edmonton, Alberta, although activity has been reported in both localities.

The production in British Columbia was \$5,177,343, of which \$524,000 is credited to placer workings as estimated by the Provincial Mineralogist, and \$4,653,343 to smelter products and bullion from milling ores. The British Columbia production in 1913 was \$6,149,027, being \$510,000 from placer workings, and \$5,639,027 from smelter products and mill bullion.

The Yukon production shows a falling off of \$721,384, the total in 1914 being \$5,125,396 including a small value in mill bullion, as against \$5,846,780 in 1913. The total amount on which royalty was paid during the year 1914, according to the records of the Mining Lands and Yukon Branch, Interior Department, was 309,691·17 ounces, as against 352,900·04 ounces in 1913.

The exports of gold bearing dust, nuggets, gold in ore, etc., in 1914, were valued at \$15,242,200.

### Silver.

The falling off in price of silver amounting to 4 cents on the average price for the year, the cessation of price quotations and the difficulties of marketing the metal immediately following the declaration of war restricted operations in the Cobalt camp, causing a lower production than might have been expected under normal conditions.

The total Canadian production in 1914 was 27,544,231 ounces, valued at \$15,097,269, as against 31,845,803 ounces valued at \$19,040,924 in 1913, a decrease of 4,301,572 ounces or 13·5 per cent in quantity, and of \$3,943,655, or 20·7 per cent in total value.

Of the total production 24,215,926 ounces or 88 per cent is credited to Ontario. The production from the silver camps is reported as 9,614,069 fine ounces in bullion shipped, and 14,544,524 ounces (after deducting 5% for smelter losses) contained in ore and concentrates shipped from Cobalt district. There is also included in the total a small quantity of silver contained in gold bullion shipped.

The Ontario production in 1913 was 28,411,261 ounces showing a falling off for the province of 4,003,805 ounces, or about 14·1 per cent.

In addition to the bullion shipments from the Cobalt camp, 9,052,993 ounces were produced in other silver refineries in the province, making a total of 18,667,062 ounces or 67·7 per cent of the Ontario production recovered within the province in the form of bullion.

The production in British Columbia, representing refined silver and silver contained in smelter products and estimated recoveries from ores exported, was in 1914 about 3,212,111 ounces, as compared with 3,312,343 ounces in 1913.

In Quebec province there is a small silver content in the pyrites ores shipped, while in the Yukon 67,432 ounces are estimated as being contained in the placer gold produced and recovered from the copper ores shipped from Whitehorse.

The exports of silver bullion and silver in ore, etc., as reported by the Customs Department, were 28,020,089 ounces valued at \$15,584,813. There is also an importation recorded of silver in bars, blocks, etc., valued at \$629,279.

The price of silver in New York reached a maximum of 59 cents during the first week of May but fell off to 49 cents during the last two months of the year.

### Copper.

The copper situation in 1914 was marked by an increased production in Ontario and Quebec as against a falling off in British Columbia and the Yukon, leaving the net result as a very slight decrease.

The copper contained in matte, blister copper, etc., produced in Canadian smelters together with the estimated recoveries or amounts paid for in ores exported amounted in 1914 to 75,738,386 pounds, which, at the average New York value of refined copper, would be worth \$10,301,935. Compared with the production in 1913, which was 76,976,925 pounds valued at \$11,753,606, there was a falling off of only 1,238,539 pounds or 1.6 per cent, but, owing to the lower price, a much larger percentage decrease in total value.

The production in Quebec from pyrites ores was 4,201,497 pounds as compared with 3,455,887 pounds in 1913. The actual copper content of the ores shipped was nearly 50 per cent in excess of these figures, but only about two thirds of the copper is reported as paid for.

The Ontario production is derived chiefly from the nickel-copper ores of the Sudbury district and of the Alexo mine, although there is a small amount of copper contained in the silver ores shipped from Cobalt, some of which is paid for. There was also a small shipment from the Dane mine on the T. & N. O. railway.

The production in 1914 is reported as 28,948,211 pounds, an increase of 3,062,282 pounds over the 1913 output which was 25,885,929 pounds. The Mond Nickel Company contributed a much larger percentage of the total production during 1914 than in 1913, and, as this Company's ores are higher in copper than those being worked by the Canadian Copper Company, we have the perhaps somewhat unexpected result of a decrease in nickel production accompanied by an increase in copper production from these Sudbury district ores.

The British Columbia production was 41,221,628 pounds as against 45,791,579 pounds in 1913, a falling off of 4,569,951 pounds. The Greenwood smelter closed down in August and the Grand Forks smelter restricted its operations very severely on the outbreak of war, but started up several furnaces again before the close of the year. The blowing in of the smelter at Anyox, treating the Hidden Creek and other coast ores, and the continuance of large shipments from the Britannia mine made the coast production slightly greater than that of the southern interior smelters and, with an increased production at Trail, almost compensated for the falling off in the Boundary district.

The Pueblo mine was again the principal copper producer in the Yukon with an output only slightly less than that in 1913.



The New York price of electrolytic copper fell off from 14·7 cents in February to 12·7 cents during the last week of July. Quotations ceased on the declaration of war but were resumed in November at a little over 11 cents, increasing to 13·2 cents in December. The average monthly price for the year was 13·602 cents as against 15·269 cents in 1913, and was with the exceptions of 1912 and 1913 the highest average since 1907.

There was a large falling off in the imports of copper of all kinds in 1914. The total imports were valued at \$4,256,901 and included crude and manufactured copper, 28,280,812 pounds valued at \$3,983,322, copper sulphate 1,143,039 pounds valued at \$53,802 and other manufactures of copper valued at \$219,777. The total imports in 1913 were valued at \$7,415,008 and included crude and manufactured copper, 41,011,961 pounds valued at \$6,935,822, copper sulphate 2,037,714 pounds valued at \$107,960 and other manufactures valued at \$371,226.

The exports of copper were: copper fine in ore, matte, etc., 68,830,059 pounds valued at \$7,130,778 and copper black or coarse, etc., 6,581,564 pounds valued at \$908,201, a total of 75,411,623 pounds valued at \$8,038,979.

### Lead.

The smelter production of lead from Canadian ores in 1914 was 36,337,765 pounds which valued at 4·479 cents per pound, the average price of pig lead in Montreal for the year, would be worth \$1,627,568. The production in 1913 was 37,662,703 pounds valued at \$1,754,705. With the exception of a small tonnage from the Yukon, the 1914 production was entirely from British Columbia ores, and was almost all recovered at the Trail smelter.

The exports of lead in ore, etc., in 1914 are reported as 246,100 pounds valued at \$2,681 and of pig lead 510,573 pounds valued at \$19,507.

The total value of the imports of lead and lead products in 1914 was \$1,042,538 and included old scrap and pig lead, 15,444,100 pounds valued at \$590,557, manufactured lead 3,394,930 pounds valued at \$186,165, manufactures n.o.p., \$99,285, and litharge and lead pigments \$166,531. The imports of litharge and pigment would contain approximately 1,449 tons of metallic lead and the total imports of metallic lead would therefore exceed 10,869 tons.

The average monthly price of lead in Montreal during 1914 was 4·479 cents as against 4·659 cents in 1913. This is the producer's price for lead in car lots as per quotations kindly furnished by Messrs. Thos. Robertson and Co.

The average monthly price of lead in New York was 3·862 cents and in London £19·079 per gross ton, equivalent to 4·146 cents per pound.

### Nickel.

The declaration of war resulted in the almost immediate closing down of a considerable portion of the mining and smelting operations of the Canadian Copper Company in the Sudbury district, and although they were partially resumed before the close of the year the Company's output was greatly reduced. The Mond Nickel Company on the other hand, having increased the capacity of its smelter at Coniston, nearly doubled its output. Ores from the Alexo nickel mine north of Cobalt were also



reduced in this smelter. Ten separate properties were worked by these companies.

The nickel-copper ore is reduced in smelters and converters to a Bessemer matte containing from 77 to 82 per cent of the combined metals and shipped in that form to Great Britain and the United States for refining; the product of the Canadian Copper Company going to New Jersey and that of the Mond Nickel Company to Wales. A portion of the matte produced by the Canadian Copper Company is used for the direct production of Monel metal, an alloy of nickel and copper, without the intermediate refining of either metal.

The total production of matte in 1914 was 46,396 tons valued by the producers at \$7,189,031, and containing 28,895,825 pounds of copper and 45,517,937 pounds of nickel. The tonnage of ore smelted (part being previously roasted) was 947,053. The production in 1913 was 47,150 tons of matte, containing 25,875,546 pounds of copper and 49,676,772 pounds of nickel, showing an increase in 1914 in copper content and a falling off in nickel.

There is also a small recovery of nickel in the form of nickel oxide from the Cobalt district ores, the production in 1914 being reported as 391,312 pounds of oxide valued at \$26,483.

The aggregate results of the smelting operations on nickel-copper ores during the past five years and the exports of nickel are shown in tabular form while a record taken from the "Foreign Commerce of the United States" has been added showing the imports of nickel into, and exports from that country. The values of the United States exports, which are not quoted in the tables, range from 31 to 39 cents per pound and averaged about 34 cents in 1914.

It will be noted that a much larger quantity of nickel finds its way to the United Kingdom through United States refineries than is exported directly from Canada.

Exports of nickel from New Caledonia for the first seven months of 1914 are reported as 52,498 metric tons of ore and 2,275 tons matte, of which the total nickel content would probably not exceed 8,000,000 pounds.

The price of refined nickel in New York remained fairly constant throughout the year, quotations published by the Engineering and Mining Journal, 40 to 45 cents per pound for nickel shot, blocks or plaquettes; electrolytic 5 cents higher per pound.

Production of Nickel in Canada.	1911. — Tons of 2,000 lbs.	1912. — Tons of 2,000 lbs.	1913. — Tons of 2,000 lbs.	1914. — Tons of 2,000 lbs.
Ore mined.....	612,511	737,584	784,097	1,000,364
Ore smelted.....	610,834	725,065	823,403	947,053
Bessemer matte produced.....	32,607	41,925	47,150	46,396
Copper content of matte.....	8,966	11,116	12,938	14,448
Nickel " ".....	17,049	22,421	24,838	22,759
Spot value of matte.....	\$4,945,592	\$6,303,102	\$7,076,945	\$7,189,031
Exports of Nickel from Canada.	Lbs.	Lbs.	Lbs.	Lbs.
Nickel contained in matte, etc.—				
Exported to Great Britain.....	5,023,393	5,072,867	5,164,512	10,291,979
Exported to United States.....	27,596,578	39,148,993	44,224,119	36,015,642
Exported to Other Countries.....			70,386	220,706
	32,610,971	44,221,860	49,459,017	46,538,327
Imports of Nickel into United States.	1911.	1912.	1913.	1914.
Gross tons of ore and matte..... Tons	23,963	33,101	37,623	29,564
Nickel contents..... Lbs.	29,545,967	42,168,769	47,194,101	35,006,700
Exports of nickel from United States—				
To France..... “	5,463,358	5,083,947	3,631,858	3,457,157
To Netherlands..... “	9,101,150	7,387,447	6,622,811	855,168
To United Kingdom..... “	7,196,259	8,191,364	8,221,640	10,836,369
To other Countries..... “	3,338,819	5,152,258	10,096,779	12,446,458
Total..... “	25,099,586	25,815,016	29,173,088	27,595,152

### Iron Ore.

The iron ore shipments from mines in Canada during 1914 are reported as 244,854 short tons valued at \$542,041. These shipments included 199,292 tons of hematite and roasted siderite and 45,562 tons of magnetite and concentrates.

The total shipments of ore in 1913 were 307,634 tons including 92,386 tons of hematite and roasted siderite, 209,886 tons of magnetite and concentrates and 5,362 tons of titaniferous ore.

Exports of iron ore from Canada during 1914 were recorded by the Customs Department as 135,451 tons valued at \$360,974.

According to mine operators reports however 184,444 tons were shipped to Canadian smelters, and 60,410 tons were exported to the United States. The imports into the United States from Canada are also reported by the Washington Trade Statistics as 58,816 tons, valued at \$153,415.

Imports of iron ore in 1914 were, according to Customs records, 1,147,108 tons, valued at \$2,387,358.

Shipments of iron ore from the Wabana mines, Newfoundland, in 1914, by the two Canadian companies operating there were 639,430 short tons, of which 422,920 tons were shipped to Sydney, Cape Breton, and 216,510 tons to the United States and Europe. In 1913 the shipments were 1,605,920 short tons, of which 1,048,432 tons were shipped to Sydney, and 557,488 tons to the United States and Europe.

### Pig Iron.

The total production of pig iron in Canadian blast furnaces in 1914 was 783,164 tons of 2,000 pounds, valued at approximately \$10,002,856, as compared with 1,128,967 tons, valued at \$16,540,012 in 1913. A large portion of this production is used directly in the manufacture of steel and the values are in part estimated. The output shows a falling off of 345,803 tons of 30.6 per cent and is the smallest since 1909.

Of the total production in 1914, 9,380 tons were made with charcoal and 773,784 tons with coke. The classification of the production, according to the purpose for which it was intended, was as follows: Bessemer 230,817, basic 346,553, foundry and malleable 205,794.

The ore charged to blast furnaces included 182,964 tons of Canadian ore and 1,324,326 tons of imported ore, and 33,583 tons of mill cinder, etc. The amount of coke used during the year was 921,171 tons, comprising 330,269 tons from Canadian coal, and 590,902 tons of imported coke or coke made from imported coal. The quantity of charcoal fuel used was 920,045 bushels and of limestone flux 447,636 tons.

The number of men employed at blast furnaces was 1,018 and total wages paid \$693,632.

The furnace plants operated for varying periods of time, included those of the Dominion Iron & Steel Co., and the Nova Scotia Steel & Coal Co., at Sydney, and North Sydney; the Algoma Steel Co. at Sault St. Marie; the Steel Co. of Canada at Hamilton, the Standard Iron Co. at Deseronto, and the Canadian Iron Furnace Co. at Port Colborne. All other furnaces were idle throughout the year.

The production of pig iron by provinces in 1913 and 1914 was as follows:

	1913.			1914.		
	Tons.	Value.	Value. per Ton.	Tons.	Value.	Value per Ton.
		\$	\$		\$	\$
Nova Scotia.....	480,068	7,201,020	15 00	227,052	2,951,676	13 00
Ontario.....	648,899	9,338,992	14 39	556,112	7,051,180	12 68
	1,128,967	16,540,012	14 65	783,164	10,002,856	12 77

There was also a production during 1914 in electric furnaces of 7,524 tons of ferro alloys (ferro-silicon and ferro-phosphorus) valued at \$478,354, compared with 8,075 tons valued at \$493,018 in 1913. This production is chiefly 50 per cent ferro-silicon.

The exports of pig iron and ferro-silicon, etc., during the year are reported as 19,063 tons, valued at \$486,366. The imports were: pig iron 78,594 tons valued at \$981,107; charcoal pig 86 tons, valued at \$1,082; ferro-manganese and ferro-silicon 22,147 tons, valued at \$549,485; or a total of 100,827 tons, valued at \$1,531,674.

### Coal and Coke.

The total production of marketable coal for the year 1914 comprising sales and shipments, colliery consumption and coal used in making coke or otherwise used by the colliery operators, was 13,594,984 shrot tons, valued at \$33,433,108, as against 15,012,178 tons, valued at \$37,334,940 in 1913, showing a decrease of 1,417,194 tons, or 9.4 per cent in quantity and of \$3,901,832, or 10.4 per cent in total value.

In estimating the values of the coals, arbitrary values are assumed for Nova Scotia and for British Columbia, viz: \$2.50 per long ton for the former and \$3.50 per long ton for the latter. The value of the coal production in the other provinces is that returned by the operators. The production in Nova Scotia was 7,338,790 tons, a falling off of 641,283 tons, or 8.0 per cent. The Alberta production as kindly furnished by Mr. John Stirling, Inspector of Mines, Alberta, was 3,667,816 tons, a decrease of 346,939 tons or 8.6 per cent, while the British Columbia production was 2,238,339 tons a decrease of 476,081 tons or 21.2 per cent. Saskatchewan with a production of 232,541 tons shows an increase of 19,644 tons or 9.2 per cent, while New Brunswick reports a production of 104,055 tons, an increase of 33,744 tons or 48 per cent. The production of the Yukon is reported as 13,443 tons, a decrease of 6,279 tons or 32 per cent from 1913.

Province.	1912.		1913.		1914.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.
Nova Scotia.....	7,783,888	\$ 17,374,750	7,980,073	\$ 17,812,663	7,338,790	\$ 16,381,228
British Columbia...	3,208,997	10,028,116	2,714,420	8,482,562	2,238,339	6,994,810
Alberta.....	3,240,577	8,113,525	4,014,755	10,418,941	*3,667,816	9,367,602
Saskatchewan.....	225,342	368,135	212,897	358,192	232,541	375,438
New Brunswick.....	44,780	89,560	70,311	166,637	104,055	260,270
Yukon.....	9,245	44,958	19,722	56,945	13,443	53,760
Total.....	14,512,829	36,019,044	15,012,178	37,334,940	13,594,984	33,433,108

\*Statistics furnished by Mr. John Stirling, Inspector of Mines, Alberta.

The exports of coal in 1914 were 1,423,126 tons, valued at \$3,880,175 as compared with exports of 1,562,020 tons valued at \$3,961,351 in 1913, a falling off of 138,894 tons or 8.89 per cent.

Imports of coal during the year included bituminous, round and run of mine 7,776,415 tons, valued at \$14,954,321, or an average of \$1.92 per ton; bituminous slack 2,509,632 tons valued at \$3,605,253 or an average of \$1.43 per ton; and anthracite 4,435,010 tons valued at \$21,241,924 or an average of \$4.79 per ton or a total of 14,721,057 tons, valued at \$39,801,498. The imports in 1913 were bituminous, round and run of mine 10,743,473 tons



tons valued at \$21,756,658; bituminous slack 2,816,423 tons, valued at \$4,157,622; and anthracite 4,642,057 tons valued at \$22,034,839; or a total of 18,201,953 tons valued at \$47,949,119.

There was therefore a decrease in imports of bituminous run of mine of 2,967,058 tons or 27.6 per cent, a decrease in the imports of bituminous slack of 306,791 tons or 10.9 per cent and a decrease in the imports of anthracite of 207,047 tons or 4.5 per cent or a total decrease in coal imports of 3,480,896 tons or 19.1 per cent.

The apparent consumption of coal during the year was 26,809,778 tons as against a consumption of 31,582,545 tons in 1913. Of the consumption in 1914 about 45.4 per cent was from Canadian mines and 54.6 per cent imported.

*Coke:*—The total output of oven coke during 1914 was 1,015,253 tons of 2,000 lbs. made from 1,533,365 tons of coal, of which 1,030,053 tons were mined in Canada, and 503,312 tons were imported. The total quantity of coke sold, or used by the producers during the year was 1,019,082 tons valued at \$3,634,511.

In 1913 the total output was 1,517,133 tons and the quantity sold or used by the producers 1,530,499 tons valued at \$5,919,596.

The output by provinces in 1914 was: Nova Scotia 345,880 tons; Ontario 377,514 tons; Alberta 28,541 tons, and British Columbia 263,318 tons. The production from Ontario was entirely from imported coal.

By-products from coke ovens during the year included 8,572 tons of ammonia sulphate; 5,714,172 gallons of tar and 3,201,097 thousand feet of gas.

The only coke ovens operated during the year were those at Sydney, Sydney Mines and Westville, Nova Scotia; Sault Ste. Marie, Ontario; Coleman, Alberta; and Fernie, Michel and Hosmer, British Columbia. At the end of the year there were 797 ovens in operation and 2,297 idle.

### Asbestos.

The asbestos production in 1914 was obtained from the districts of Black Lake, Thetford, Robertsonville, and Danville in the Province of Quebec. Both output and sales show a considerable falling off while there is an increase in the stocks on hand at the close of the year, a result which is no doubt due largely, if not entirely, to the war.

The total output in 1914 was 107,668 tons, as against 132,564 tons in 1913, a falling off of 24,896 tons, or 18.7 per cent. Notwithstanding this decrease the output was greater than that of any other preceding year. The sales and shipments of asbestos during 1914 were 96,542 tons, valued at \$2,892,266 or an average of \$29.96 per ton, as against sales in 1913 of 136,951 tons valued at 3,830,909, or an average of \$27.97 per ton. The 1914 sales were exceeded during each of the previous three years. Stocks on hand at December 31, 1914, were 31,171 tons, as compared with stocks of 20,787 tons at the end of the previous year.

The number of men employed in mines or quarries and mills, was 2,992 and amount paid in wages \$1,283,977, as against 2,951 men employed, and \$1,687,957 paid in wages in 1913.

The total quantity of asbestos rock milled during the year is reported as 1,717,629 tons which, with a mill production of 103,607 tons, shows an average estimated content of about 6.03 per cent of fibre in the rock.



The output and sales of crude and mill stock separately is shown for 1913 and 1914, in the following tables. The classification is based on valuation: Crude No. 1, comprising material valued at \$200 per ton and upwards, and Crude No. 2, under \$200; mill stock No. 1, includes mill fibre valued at from \$30 upwards, No. 2 from \$15 to \$30, and No. 3 under \$15.

The total sales of crude asbestos in 1914 were 4,147.5 tons valued at \$773,193 or an average of \$186.42 as against sales in 1913 of 5,660.3 tons, valued at \$989,162, or an average of \$174.45 per ton, showing a lower tonnage but a higher average value in 1914.

The total sales of mill stock in 1914 were 92,394 tons, valued at \$2,119,073, or an average of \$22.94 per ton, as against 131,291 tons in 1913, valued at \$2,841,747, or an average of \$21.64 per ton, again a smaller tonnage but a higher average price than in the previous year.

Exports of asbestos during the twelve months ending December 31, 1914, were 81,081 tons, valued at \$2,298,646 as against 103,812 tons, valued at \$2,848,047 exported in 1913. There was also an export classed as asbestos sand in 1914, amounting to 18,991 tons, valued at \$108,548, or an average value per ton of \$5.71.

### Output Sales and Stocks in 1914.

	Output.	Sales.			Stock on hand. Dec. 31.		
	Tons.	Tons.	Value.	Per ton.	Tons.	Value.	Per ton.
			\$	\$		\$	\$
Crude No. 1.....	1,450.55	1,335.9	402,417	301.23	984.3	301,237	306.04
" 2.....	2,610.4	2,811.65	370,776	131.87	1,410.9	187,338	132.78
Mill stock No. 1.....	16,144	19,388	932,893	48.12	4,616	229,361	49.69
" 2.....	58,362	47,851	963,973	20.15	15,114	305,809	20.23
" 3.....	29,101	25,155	222,207	8.83	9,046	76,522	8.46
Asbestos.....	107,667.95	96,541.55	2,892,266	29.96	31,171.2	1,100,267	35.30
Asbestic.....		21,031	17,540	0.83			

### Output Sales and Stocks in 1913.

	Output.	Sales.			Stock on hand. Dec. 31.		
	Tons.	Tons.	Value.	Per ton.	Tons.	Value.	Per ton.
			\$	\$ cts.		\$	\$ cts.
Crude No. 1.....	2,015.4	1,853.3	531,200	286.62	880.5	247,877	281.52
" 2.....	3,010.	3,807.	457,962	120.29	1,522	178,789	117.47
Mill stock No. 1.....	23,444	26,198	1,229,908	46.95	6,755	350,165	51.84
" 2.....	58,592	60,164	1,201,215	19.97	4,809	108,285	22.52
" 3.....	45,503	44,929	410,624	9.14	6,820	54,604	8.01
Total asbestos.....	132,564.4	136,951.3	3,830,909	27.97	20,786.5	939,720	45.21
Asbestic.....		24,135	19,016	0.79			

## Petroleum and Natural Gas.

Although crude oil has been struck in several of the prospect wells being sunk in Alberta and a few thousand gallons obtained from the Dingman Well, No. 1, of the Calgary Petroleum Products, Ltd., were sold, the western fields have not, as yet, reached the stage of commercial production and the Canadian output is still practically confined to the old established fields in Ontario supplemented by a few barrels pumped from gas wells in New Brunswick.

The annual output, which has been steadily declining during the past seven years, shows a further falling off in 1914. The average price received for crude oil was also lower than in the previous year.

A bounty of one and a half cents per imperial gallon is paid upon the production of crude petroleum, the Petroleum Bounty Act being administered and payments made by the Department of Trade and Commerce.

According to the records of this department, the total output of petroleum in Ontario and New Brunswick during 1914 was 214,418 barrels, or 7,504,619 gallons on which a bounty of \$340,924 was paid. The average monthly price per barrel at Petrolia was \$1.59 as compared with \$1.782 in 1913. During the first three months of 1914, \$1.89 per barrel was quoted, but the price decreased to a minimum of \$1.33 during the past three months of the year.

In addition to the above 13,549 gallons, or 387 barrels, valued at \$2,200, were reported as having been sold from the Dingman Well in Alberta upon which no bounty was claimed. The total Canadian production is therefore stated as 7,518,168 gallons or 214,805 barrels valued at \$343,124.

The production in 1913 was 7,982,798 gallons, or 228,080 barrels, valued at \$406,439. The production in Ontario during 1914 included in the above total was 212,693 barrels. The production by districts in this province, as furnished by the Supervisor of Petroleum Bounties, at Petrolia, was as follows, in barrels: Lambton, 154,186; Tilbury, 18,530; Bothwell, 33,961; Dutton, 2,190; Onondaga, 2,437, and Belle River, 1,191, or a total of 212,495 barrels. In 1913 the production by districts was: Lambton, 155,747; Tilbury, 26,824; Bothwell, 34,349; Dutton, 4,610; Onondaga, 4,172, and Belle River, 464, or a total of 226,166 barrels.

The production in New Brunswick in 1914 was 1,725 barrels, as against 2,111 barrels in 1913, and 2,679 barrels in 1912.

Exports of petroleum entered as crude mineral oil in 1914 were 3,996 gallons valued at \$362, and of refined oil 3,922 gallons valued at \$826. There was also an export of naphtha and gasoline of 43,023 gallons valued at \$11,607.

The total value of the imports of petroleum and petroleum products in 1914 was \$11,174,763, as against a value of \$13,348,326 in 1913.

The total imports of petroleum oils, crude and refined in 1914 were 244,487,973 gallons valued at \$11,072,362 in addition to 1,594,236 pounds of wax and candles valued at \$102,401. The oil imports included: crude oil, 195,207,210 gallons valued at \$5,750,971; refined and illuminating oils, 12,833,065 gallons valued at \$970,481; gasoline, 24,396,401 gallons valued at \$2,747,360; lubricating oils, 5,767,676 gallons valued at \$940,143, and other petroleum products, 6,282,621 gallons valued at \$663,407.

The total imports in 1913 were 222,779,028 gallons of petroleum oils crude and refined valued at \$13,238,429, in addition to 1,628,837 pounds of paraffin wax and candles valued at \$109,897. The oil imports included: crude oil, 162,061,926 gallons, valued at \$5,250,835; refined and illuminating oils 19,393,627 gallons, valued at \$1,394,440; gasoline, 29,525,180 gallons, valued at \$4,822,941; lubricating oils, 6,789,451 gallons, valued at \$1,172,986, and other petroleum products, 5,008,844 gallons, valued at \$597,227.

There was thus in 1914 an increased importation of crude oils and a decrease in imports of refined illuminating oils, lubricating oils and gasoline.

### Natural Gas.

The total production in 1914 was approximately 21,047 million feet, valued at \$3,511,302, of which 426 million feet, valued at \$54,249 was produced in New Brunswick; 13,675 million feet, valued at \$2,206,733, in Ontario; and 6,946 million feet valued at \$1,250,320 in Alberta.

The production in 1913 was 20,478 million cubic feet, valued at \$3,307,381, of which 829 million feet valued at \$174,147 was produced in New Brunswick; 12,475 million feet, valued at \$2,055,768, in Ontario; and 7,174 million feet, valued at \$1,079,466, in Alberta.

These values represent as closely as can be ascertained the value received by the owners or operators of the wells for gas produced and sold or used. The values do not represent what consumers have to pay, since, in cases where transmission is by separately operated pipe line companies, such cost is not included.

### Cement.

The year 1914 has witnessed a very large falling off in the production of nearly all materials of construction. This situation while possibly aggravated by the war was due primarily to conditions which had already begun to show their effects during the latter part of 1913.

The total quantity of Portland cement, including slag cement and natural Portland, made in 1914 was 8,727,269 barrels of 350 net pounds each as compared with 8,886,333 barrels made in 1913, a decrease of 159,064 barrels, or about 2 per cent.

The total quantity of Canadian Portland cement sold or used during 1914 was 7,172,480 barrels valued at \$9,187,924 or an average of \$1.28 per barrel, as compared with 8,658,805 barrels valued at \$11,019,418 or an average of \$1.27 per barrel in 1913, showing a decrease of 1,486,325 barrels, or 17 per cent.

The total imports of cement in 1914 were 343,076 cwt. equivalent to 98,022 barrels of 350 pounds valued at \$147,158, or an average of \$1.50 per barrel, as compared with imports of 254,093 barrels valued at \$409,303, or an average of \$1.61 in 1913.

The total consumption of cement therefore, neglecting a small export, was 7,270,502 barrels, as compared with a consumption of 8,912,898 barrels in 1913; a decrease of 1,642,396 barrels, or 18.4 per cent.

Detailed statistics of production during each of the past four years are shown as follows:

	1911.	1912.	1913.	1914.
	Brls.	Brls.	Brls.	Brls.
Portland Cement sold .....	5,692,915	7,132,732	8,658,805	7,172,480
"    manufactured .....	5,677,539	7,141,404	8,886,333	8,727,269
Stock on hand Jan. 1st .....	918,965	894,822	862,067	1,074,610
"    Dec. 31st .....	903,589	903,094	1,089,595	2,629,399
Value of cement sold .....	\$ 7,644,537	\$ 9,106,556	11,019,418	9,187,924
Wages paid .....	2,103,838	2,623,902	3,466,451	
Men employed .....	3,010	3,461	4,276	

\*Partially estimated.

The average price per barrel at the works in 1914 was \$1.28 as compared with \$1.27 in 1913, \$1.28 in 1912, and \$1.34 during 1911 and 1910.

The imports of cement in 1914 included 26,774 barrels valued at \$35,517 from Great Britain; 69,117 barrels valued at \$108,487 from the United States, and 2,131 barrels valued at \$3,154 from other countries.

The consumption of Portland cement during each of the past five years was as follows:

### Annual Consumption of Portland Cement.

Calendar Year.	Canadian.		Imported.		Total.
	Barrels.	Per cent.	Barrels.	Per cent.	Barrels.
1910 .....	4,753,975	93	349,310	7	5,103,285
1911 .....	5,692,915	90	661,916	10	6,354,831
1912 .....	7,132,732	83.3	1,434,413	16.7	8,567,145
1913 .....	8,658,805	97.1	254,093	2.9	8,912,988
1914 .....	7,172,480	98.7	98,022	1.3	7,270,502



# Exports of Products of the Mine and Manufactures of Mine Products, Calendar Year, 1914.

(Compiled from Trade and Navigation Monthly Statements.)

Products.	Quantity.	Value.
		\$
Arsenic.....	Cwt. 37,519	132,567
Asbestos.....	Tons 81,081	2,298,646
Asbestos sand.....	" 18,991	108,548
Coal.....	" 1,423,126	3,880,175
Feldspar.....	" 18,072	74,100
Gold.....	\$	15,242,200
Gypsum.....	Tons 345,830	404,234
Copper, fine, in ore, etc.....	Lbs. 68,830,059	7,130,778
" black or coarse and in pigs.....	" 6,581,564	908,201
Lead, in ore, etc.....	" 246,100	2,681
" pig, etc.....	" 510,573	19,507
Nickel, in ore, etc.....	" 46,528,327	5,149,427
Platinum.....	Ozs. 43	2,161
Silver.....	" 28,020,089	15,584,813
Mica.....	Lbs. 669,163	178,940
Mineral Pigments.....	Cwt. 35,549	22,311
Mineral Water.....	Gals. 2,287	599
Oil, mineral, crude, etc.....	" 3,996	362
Oil, refined.....	" 3,922	826
Ores—		
Antimony.....	Tons	
Corundum.....	" 947	87,740
Iron.....	" 135,451	360,974
Manganese.....	" 30	750
Other Ores.....	" 12,770	782,437
Phosphate.....	" 247	677
Plumbago.....	Cwt. 18,375	50,528
Pyrites.....	Tons 89,999	377,985
Salt.....	Cwt. 9,527	5,229
Sand and Gravel.....	Tons 952,370	802,358
Stone, ornamental.....	" 231	5,607
" building.....	" 63,009	46,198
" crushed.....	" 25,130	18,153
" for manufacture of grindstones.....	" 54	294
Other products of the mine.....		101,096
Total mine products.....		53,781,102
<b>MANUFACTURES.</b>		
Agricultural Implements—		
Mowing machines.....	No. 21,457	725,831
Cultivators.....	" 6,030	146,668
Reapers.....	" 3,919	223,228
Drills.....	" 3,961	259,701
Harvesters and binders.....	" 19,474	2,01,996
Ploughs.....	" 12,896	324,349
Harrows.....	" 6,252	92,556
Hay rakes.....	" 6,524	196,519
Seeders.....	" 32	1,810
Threshing machines.....	" 1,965	799,307
All other.....	\$	290,520
Parts of.....	"	712,414
Asbestos, manufactures of.....	"	94,538
Bricks.....	M 1,486	11,871
Cement.....	\$	2,223
Clay, manufactures of.....	"	26,866
Coke.....	Tons 67,838	306,117
Drugs—		
Acetate of lime.....	Lbs. 16,052,255	282,146
Acid sulphuric.....	" 7,485,509	45,612
Calcium carbide.....	" 15,447,014	470,387
Phosphorus.....	" 610,350	92,303





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# Exports of Products of the Mine and Manufactures of Mine Products, Calendar Year, 1914—*Concluded.*

(Compiled from Trade and Navigation Monthly Statements.)

Products.	Quantity.	Value.
<b>MANUFACTURES—<i>Concluded.</i></b>		<b>\$</b>
Earthenware and all manufactures of.....	\$	9,336
Fertilizers.....	"	2,390,494
Grindstones, manufactured.....	"	24,113
Gypsum and plaster ground.....	"	35,490
Iron and Steel and manufactures of—		
Stoves.....	No. 4,198	25,149
Gas buoys and parts of.....	\$	21,009
Castings, N.O.P.....	"	24,218
Pig iron.....	Tons 14,198	201,145
Ferro-Silicon and Ferro-Compounds.....	" 4,865	285,221
Wire and wire nails.....	Cwt. 193,255	355,781
Linotype machines and parts of.....	\$	5,562
Machinery, N.O.P.....	"	344,689
Sewing machines.....	No. 2,109	31,392
Washing machines.....	\$	33,986
Typewriters.....	No. 3,055	200,441
Scrap iron and steel.....	Cwt. 708,107	446,337
Hardware, viz. tools, etc.....	\$	95,497
" N.O.P.....	"	190,763
All other, N.O.P.....	"	2,931,908
Lime.....	"	16,927
Metals—		
Aluminum, in bars, etc.....	Cwt. 145,108	2,364,907
" manufactures of.....	\$	5,571
Brass, old and scrap.....	Cwt. 21,209	196,710
Copper, old and scrap.....	" 19,871	231,710
Metallic shingles, etc.....	\$	105,663
Metals, N.O.P.....	"	393,829
Mineral and aerated water (in bottles).....	"	1,768
Oil, gasoline and naptha.....	Gals 43,023	11,607
" N.O.P.....	" 455,867	104,179
Plumbago, manufactures of.....	\$	72,718
Stone, ornamental.....	"	1,752
" building.....	"	370
Tar.....	"	36,719
Tin, manufactures of.....	"	24,531
Vehicles—		
Automobiles.....	No. 5,621	3,011,327
" parts.....	\$	384,428
Bicycles.....	No. 111	10,021
" parts.....	\$	3,973
Total manufactures.....		21,752,203
Grand total.....		75,533,305