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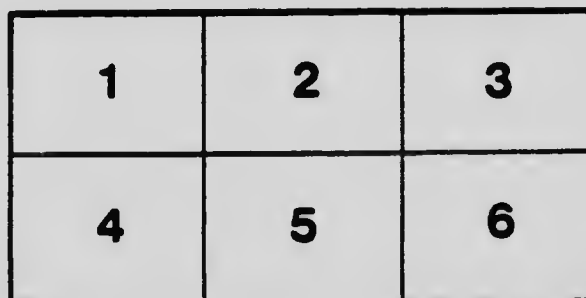
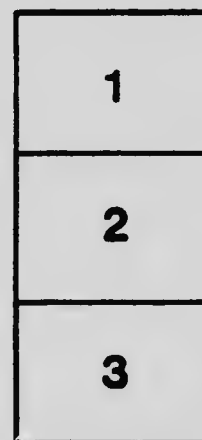
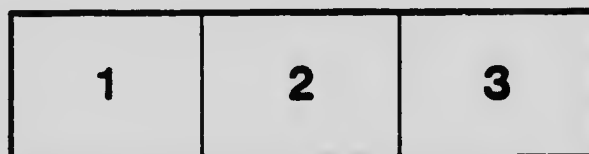
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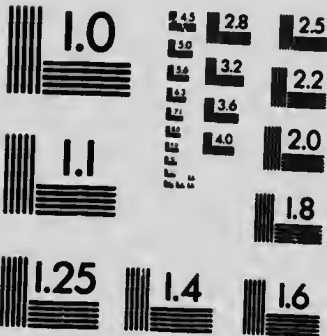
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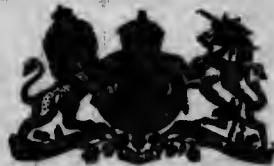
THE  
PRODUCTION OF COAL AND COKE  
IN  
CANADA

During the Calendar Year

1913

JOHN McLEISH, B.A.

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



OTTAWA  
GOVERNMENT PRINTING BUREAU  
1914

No. 316



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**ADVANCE CHAPTER OF THE ANNUAL REPORT ON THE  
MINERAL PRODUCTION OF CANADA, DURING THE  
CALENDAR YEAR 1913.**

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*(Tons used throughout this report are short tons of 2,000 pounds, except otherwise stated.)*

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#### *Illustration.*

Diagram showing production, consumption, importation, and exportation of coal during 1913.



## COAL.

Canada's coal-fields and coal deposits are probably the most extensive and best known of her mineral resources. The enormous extent of these coal resources is admirably shown in the monograph "Coal Resources of the World" published under the auspices of the Twelfth International Geological Congress of the World, which met in Canada in 1913. Notwithstanding the vastness of these deposits, however, the total amount of coal annually mined in Canada at the present time is less than 50 per cent of the country's consumption, a condition which undoubtedly must continue for many years to come because of the geographical relationship of the coal-fields to the principal centres of population. The coal-fields are found principally in the coast provinces and in Alberta, while the great central Provinces of Ontario and Quebec in which the major portion of Canadian population is still concentrated and which are without coal-fields, are nearer to the States of Pennsylvania and Ohio. In addition to this, there is a large consumption of anthracite coal in eastern and central Canada, which cannot be obtained from Canadian sources, but is available from Pennsylvania.

The character of the coal mined in Canada is chiefly bituminous and lignite, although there is an output of anthracite not exceeding 200,000 tons per annum, from one mine at Bankhead in Alberta. The Saskatchewan production is entirely lignite, as is also a large portion of that of Alberta.

The term production in the text and tables of this report is used to represent the amount of coal actually sold or used by the producer as distinguished from the term output, which is applied to the total coal extracted from the mine, and which in some cases includes coal lost or unsaleable, or coal carried into stock on hand at the end of the year.

The total production of coal in 1913 according to returns received was 15,012,178 short tons (12,510,873 long tons) valued at \$37,334,940 or an average of \$2.49 per ton. This production was obtained by about 227 operating companies employing an average of 27,917 men at a wage cost of approximately \$22,065,141. Compared with 1912, in which year the production was 14,512,829 short tons (12,957,883 long tons) valued at \$36,019,044, an increase is shown of 499,349 tons or 3.44 per cent in quantity. These values are partially estimated or assumed since complete returns have not been received with respect to the total value received for coal sold. In the case of Nova Scotia an average value of \$2.50 per long ton is placed upon the total production, while for British Columbia an average value of \$3.50 per long ton is used. The values placed upon the Alberta production are those furnished by the operating companies.

The total exports of domestic coal from Canada in 1913 were 1,562,020 tons valued at \$3,961,351 as compared with 2,127,133 tons valued at \$5,821,593 in 1912. There is also a small export of coal "not the produce of Canada."

The total imports of coal in 1913 were 18,201,953 tons valued at \$47,949,119, as compared with imports in 1912 of 14,595,810 tons valued at \$39,478,037.

The total consumption of coal in 1913 was 31,582,545 tons or 4.07 tons per capita, as compared with 26,934,800 tons or 3.59 tons per capita in 1912.

The principal restriction placed upon coal mining operations during the year was that caused by a general strike in the coal mines on Vancouver island ordered by the "United Mine Workers of America." While this strike was not altogether successful in closing up the mines it did result in a considerable restriction of the output.

The increased use of oil fuel for locomotives in British Columbia and for coast vessels has also in some slight measure reduced the market for coal in western Canada. According to statistics published by the Department of Railways and Canals, the total consumption of coal in locomotive boilers during the twelve months ending June 30, 1913, was 9,045,625 tons, which is equivalent to very nearly one-third the total consumption of coal in Canada. During the twelve months ending June, 1912, there was used for locomotives 1,729,577 gallons of oil, whereas during the twelve months ending June, 1913, the quantity so used was 31,087,252 gallons. This consumption of oil in 1913 would probably be equivalent to about 310,000 tons of Nanaimo coal and, taken in conjunction with the oil used on coast vessels indicates in some degree the extent to which coal has been displaced as a fuel in this market.

Statistics of the production of coal by provinces in 1913 and 1912, are given in accompanying tables.

COAL.—TABLE 1.

## Production of Coal by Provinces, 1913.

Province.	Average No. of men employed.	Wages paid.	PRODUCTION OF COAL.		Average value per ton.	Per cent of total quantity.
			Tons.	Value.		
		\$		\$	\$ cts.	
Nova Scotia.....	13,697	9,323,613	7,980,073	17,812,663	2 23	53.15
British Columbia...	6,162	5,587,145	2,714,420	8,482,562	3 12	18.08
Alberta.....	7,509	6,811,372	4,014,755	10,418,941	2 59	26.75
Saskatchewan.....	350	205,970	212,897	358,192	1 68	1.42
New Brunswick.....	160	95,000	70,311	166,637	2 37	0.47
Yukon Territory....	39	37,041	19,722	95,945	4 86	0.13
	27,917	22,065,141	15,012,178	37,334,940	2 49	100.00

COAL.—TABLE 2.

## Production of Coal by Provinces, 1912.

Province.	Average No. of men employed.	Wages paid.	PRODUCTION OF COAL.		Average value per ton.	Per cent of total quantity.
			Tons.	Value.		
		\$		\$	\$ cts.	
Nova Scotia.....	13,736	8,893,697	7,783,888	17,374,750	2.233	53.63
British Columbia...	6,633	6,125,239	3,238,997	10,028,116	3.125	22.12
Alberta.....	6,648	5,474,192	3,240,577	8,113,525	2.503	23.33
Saskatchewan.....	374	213,690	225,342	368,135	1.633	1.55
New Brunswick.....	144	50,000	44,780	89,560	2.000	0.31
Yukon Territory....	46	28,025	9,245	44,958	4.863	0.06
	27,581	20,784,843	14,512,829	36,019,044	2.481	100.00

## Comparison of Production 1911 with 1912 and 1912 with 1913.

Province.	(i) INCREASE OR (d) DECREASE.			
	Years 1911 and 1912.		Years 1912 and 1913.	
	Tons.	Per cent.	Tons.	Per cent.
Nova Scotia.....	(i) 779,468	11.13	(i) 196,185	2.52
British Columbia.....	(i) 666,465	26.21	(d) 494,577	15.41
Alberta.....	(i) 1,729,541	114.46	(i) 774,178	23.89
Saskatchewan.....	(i) 18,563	8.98	(d) 12,445	5.52
New Brunswick.....	(d) 11,001	19.72	(i) 25,531	57.01
Yukon Territory.....	(i) 6,405	225.00	(i) 10,477	113.31
Total for Canada.....	(i) 3,180,441	28.04	499,349	3.44

It will be seen that there has been an increased production of coal in each of the provinces with the exception of Saskatchewan and British Columbia. The Province of Nova Scotia contributed over 53 per cent of the total production during the year, but the increased production over 1912 was only 196,185 tons, or 2.5 per cent. Alberta contributed 26.75 per cent of the total in 1913 with an increase of 774,178 tons or nearly 24 per cent over the 1912 production. During the past ten years coal mining has increased more rapidly in this Province than in any other, and during the past two years British Columbia has been displaced by Alberta as the second coal province in tonnage output. Alberta also produces the greatest variety of coals, ranging from lignites to anthracite. The production in Saskatchewan is entirely lignite and shows a slight falling-off of 12,445 tons or 5.5 per cent in 1913. In both New Brunswick and the Yukon the production is small but shows a high percentage of increase in 1913. The falling-off in British Columbia in 1913 was 494,577 tons or 15.4 per cent, so that this Province contributed only 18 per cent of the total production as against 22.1 per cent in 1912.

The relative importance of the different provinces as coal producers for a number of years past is indicated in the next table, in which is shown the proportional contributions of each province to the total tonnage of coal produced in Canada. The coal-fields on the Atlantic sea-board still continue to produce more than half the total, although in 1910 the combined output of the western provinces was only a little less than 50 per cent of the total.

Province.	1874.	1890.	1900.	1903.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
	%	%	%	%	%	%	%	%	%	%	%	%	%
Nova Scotia.....	91	71	62.9	71.3	65.5	64.07	60.79	61.40	54.29	50.25	62.35	53.94	53.62
New Brunswick.....													
Saskatchewan*.....			0.7	1.5	1.2	1.11	1.44	1.37	1.83	1.40	1.83	1.55	1.42
Alberta*.....		4	5.4	6.2	10.8	12.77	15.14	15.42	18.99	22.42	13.34	22.33	26.75
British Columbia.....	8	25	31.0	21.0	22.4	21.98	22.50	21.77	24.82	25.80	22.45	22.12	18.08
Yukon Territory.....					0.1	0.07	0.13	0.04	0.07	0.13	0.03	0.06	0.13

\* Alberta and Saskatchewan were established as provinces on September 1, 1905. For the purpose of comparison, the coal production during the years previous to that date has been separated according to the present boundaries of these Provinces.

Statistics of the distribution of the coal production of Canada in 1913, given in the following tables, show 11,381,960 tons reported as sold for consumption in Canada, 1,255,401 tons sold for export to the United States, and 263,189 tons sold for export to other countries, or total sales of 12,900,550 tons; 914,421 tons were used by colliery operators in the manufacture of coke, in steel plants and in brick plants, etc., while 1,197,207 tons were used in the operation of collieries and by workmen. In addition to the

coal thus disposed of 115,021 tons were mined and carried forward as stock.

Returns as to the amount of coal lost due to breakage, washing, unmarketable, slack, etc., are far from complete, but 405,679 tons were thus reported bringing the total "output" of coal up to 15,532,878 tons.

The great distance of the coal-fields from the older and more populous Provinces of Ontario and Quebec and the economic necessity for the importation of coal, have already been mentioned. During 1913 the domestic production (including that exported) was equivalent to only about 47 per cent of the total consumption, there having been imported for home consumption during 1913, 18,201,953 tons. The total consumption of coal as shown in subsequent tables was 31,582,545 tons, or an average of about 4.071 tons per capita, while the production averaged about 1.936 tons per capita of population.

### Production and Distribution of Coal Mined, by Provinces, 1913.

	Nova Scotia.	New Brunswick.	Saskatchewan.	Alberta.	Yukon.	British Columbia	Total.
Sales in Canada.....	6,269,722	68,311	195,954	3,527,772	8,558	1,311,643	11,381,960
Sales for export to U.S.....	417,035			139,536	10	698,820	1,255,401
Sales for export to other countries.....	263,189				0		263,189
Total sales.....	6,949,946	68,311	195,954	3,667,308	8,568	2,010,463	12,900,550
Used by producers in making coke, steel, brick, etc.....	307,060		7,742	104,077	10,271	485,271	914,421
Used by producers for colliery consumption and workmen..	723,067	2,000	9,201	243,370	883	218,686	1,197,207
Total used.....	1,030,127	2,000	16,943	347,447	11,154	703,957	2,111,628
Production*.....	7,980,073	70,311	212,897	4,014,755	19,722	2,714,420	15,012,178
Stock on hand Jan. 1	256,221			67,123	3,903	58,206	385,456
"    Dec. 31	352,308			127,456	4,623	13,090	500,477
Difference.....	96,087			+ 60,333 +	720 -	119	+ 115,021
Losses due to breakage or other causes	58,944		6,748	114,448	0	225,539	405,679
Total output.....	8,135,104		219,645	4,189,536	20,442	2,897,840	15,532,878

\*Production is obtained by adding coal sold and coal used.

### Production and Distribution of Coal Mined, by Provinces, 1912.

	Nova Scotia.	New Brunswick.	Saskatchewan.	Alberta.	Yukon.	British Columbia.	Total.
Sales in Canada.....	6,123,348	42,780	215,796	2,772,374	8,053	1,410,014	10,572,365
Sales for export to U.S.....	482,597			03,126		961,862	1,537,585
Sales for export to other countries.....	193,274					121,136	314,410
<b>Total sales.....</b>	<b>6,799,219</b>	<b>42,780</b>	<b>215,796</b>	<b>2,865,500</b>	<b>8,053</b>	<b>2,493,012</b>	<b>12,424,360</b>
Used by producers in making coke, steel, brick, etc.....	253,354		2,048	170,818		444,665	870,885
Used by producers for colliery consumption and workmen.....	731,315	2,000	7,498	204,259	1,192	271,320	1,217,584
<b>Total used.....</b>	<b>984,669</b>	<b>2,000</b>	<b>9,546</b>	<b>375,077</b>	<b>1,192</b>	<b>715,985</b>	<b>2,088,469</b>
<b>Production*.....</b>	<b>7,783,888</b>	<b>44,780</b>	<b>225,342</b>	<b>3,240,577</b>	<b>9,245</b>	<b>3,208,997</b>	<b>14,512,829</b>
Stock on hand Jan. 1.....	211,089			29,307		74,346	314,742
“ Dec. 31.....	176,509			51,060		54,500	282,069
Difference.....	- 34,580			+ 21,753		- 19,846	- 32,673
Losses due to breakage or other causes.....	35,416		6,892	63,908		11,075	167,291
<b>Total output.....</b>	<b>7,834,724</b>	<b>44,780</b>	<b>232,234</b>	<b>3,326,238</b>	<b>9,245</b>	<b>3,200,226</b>	<b>14,647,447</b>

\*Production is obtained by adding coal sold and coal used.

### Distribution of Coal Mined in Canada During the Years 1908-9-10-11.

	1908.	1909.	1910.	1911.
Sales in Canada.....	7,715,203	7,468,830	8,956,450	8,559,952
Sales for export to United States.....	1,218,656	1,173,772	1,847,943	1,068,572
“ other countries.....	297,291	171,388	291,273	280,235
<b>Total sales.....</b>	<b>9,231,150</b>	<b>8,814,040</b>	<b>11,095,666</b>	<b>9,908,759</b>
Used by producers for the manufacture of coke.....	708,674	752,976	759,703	452,354
“ colliery consumption and workmen.....	946,487	934,459	1,053,783	962,275
<b>Production.....</b>	<b>10,886,311</b>	<b>10,501,475</b>	<b>12,909,152</b>	<b>11,323,388</b>
Stock on hand Jan. 1.....	183,443	202,432	200,019	265,046
“ Dec. 31.....	230,335	219,569	263,666	307,755
Difference.....	+ 46,892	+ 17,137	+ 63,647	+ 42,709
Loss due to washing, breakage, or other causes.....	157,610	154,162	243,716	182,567
<b>Total output.....</b>	<b>11,030,813</b>	<b>10,672,774</b>	<b>13,216,515</b>	<b>11,548,664</b>



Statistics of the annual production of coal in Canada since 1785 are shown in Table 3. The total production from 1785 to 1913 has been 213,064,628 tons, of which 137,926,585 tons or 64.7 per cent are to be credited to Nova Scotia, 48,572,858 tons or 22.8 per cent to British Columbia, and 23,795,886 tons or 11.2 per cent to Alberta. The total production in Saskatchewan has been 2,070,420 tons; in New Brunswick, 598,053 tons; and in the Yukon, 100,828 tons.

COAL.—TABLE 3.

## Annual Production Showing the Increase or Decrease Each Year.

Year.	Tons.	Value.	Average value per ton.	Increase (i) or decrease (d) in tonnage.	Increase (i) or decrease (d) per cent.
1785 to 1873.....	*8,592,150				
1874.....	1,063,742	1,763,423	1 66		
1875.....	1,039,974	1,747,016	1 68	(d) 23,768	(d) 2.2
1876.....	994,762	1,729,546	1 74	(d) 45,212	(d) 4.3
1877.....	1,036,670	1,794,415	1 73	(i) 41,908	(i) 4.2
1878.....	1,089,744	1,941,285	1 78	(i) 53,074	(i) 5.1
1879.....	1,126,497	2,050,639	1 82	(i) 36,753	(i) 3.4
1880.....	1,482,714	2,657,194	1 79	(i) 356,217	(i) 31.6
1881.....	1,537,106	2,688,621	1 75	(i) 54,392	(i) 3.7
1882.....	1,848,148	3,248,446	1 76	(i) 311,042	(i) 0.2
1883.....	1,818,684	3,109,635	1 71	(d) 29,464	(d) 21.6
1884.....	1,984,959	3,593,831	1 81	(i) 166,275	(i) 9.1
1885.....	1,920,977	3,417,807	1 78	(d) 63,982	(d) 3.2
1886.....	2,116,653	3,739,840	1 77	(i) 195,676	(i) 10.2
1887.....	2,429,330	4,388,206	1 81	(i) 312,677	(i) 14.8
1888.....	2,602,552	4,674,140	1 80	(i) 173,222	(i) 7.1
1889.....	2,658,303	4,894,287	1 84	(i) 55,751	(i) 2.1
1890.....	3,084,682	5,676,247	1 84	(i) 426,379	(i) 16.0
1891.....	3,577,749	7,019,425	1 96	(i) 493,067	(i) 16.0
1892.....	3,287,745	6,363,757	1 94	(d) 290,004	(d) 8.1
1893.....	3,783,499	7,359,080	1 95	(i) 495,754	(i) 15.1
1894.....	3,847,070	7,429,468	1 93	(i) 63,571	(i) 1.7
1895.....	3,478,344	6,739,153	1 94	(d) 368,726	(d) 9.6
1896.....	3,745,716	7,226,462	1 93	(i) 267,372	(i) 7.7
1897.....	3,786,107	7,303,597	1 93	(i) 40,391	(i) 1.1
1898.....	4,173,108	8,224,288	1 97	(i) 387,001	(i) 10.2
1899.....	4,925,051	10,283,497	2 09	(i) 751,943	(i) 18.0
1900.....	5,777,319	13,742,178	2 38	(i) 852,268	(i) 17.3
1901.....	6,486,325	12,609,243	1 96	(i) 709,006	(i) 12.3
1902.....	7,466,681	15,210,877	2 04	(i) 780,356	(i) 15.1
1903.....	7,960,364	15,942,833	2 00	(i) 493,033	(i) 6.6
1904.....	8,254,595	16,592,231	2 01	(i) 294,231	(i) 3.7
1905.....	8,667,948	17,520,263	2 02	(i) 413,353	(i) 5.0
1906.....	9,762,601	19,732,019	2 02	(i) 1,034,653	(i) 12.6
1907.....	10,511,426	24,381,842	2 32	(i) 748,825	(i) 7.7
1908.....	10,886,311	25,194,573	2 21	(i) 374,885	(i) 3.5
1909.....	10,501,475	24,781,236	2 56	(d) 384,836	(d) 3.5
1910.....	12,909,152	30,909,779	2 39	(i) 2,407,677	(i) 22.93
1911.....	11,323,388	26,467,646	2 34	(d) 1,585,764	(d) 12.28
1912.....	14,512,829	36,019,044	2 48	(i) 3,189,441	(i) 28.04
1913.....	15,012,178	37,334,940	2 49	(i) 499,349	(i) 3.44

\*The total production for the years 1785 to 1873 is made up as follows:—  
 Nova Scotia (1785 to 1873)..... 8,053,670 tons of 2,000 pounds.  
 British Columbia (1836 to 1873)..... 538,480 " 2,000 "

## EXPORTS AND IMPORTS.

The total exports during 1913 according to Customs Department reports were 1,562,020 tons valued at \$3,961,351, or an average of \$2.54 per ton, as compared with exports in 1912 of 2,127,133 tons valued at \$5,821,593 or \$2.74 per ton, and exports in 1911 of 1,500,639 tons valued at \$4,357,074 or \$2.90 per ton. The exports during 1911 and 1913 have been lower than the average for a number of years.

The total imports during 1913 were 18,201,953 tons valued at \$47,949,119, as compared with imports in 1912 of 14,595,810 tons valued at \$39,478,037, and imports in 1911 of 14,558,892 tons valued at \$39,292,591.

Statistics of exports during 1911-12-13 showing the principal countries of destination and of the annual exports since 1873 are given in accompanying tables.

COAL.—TABLE 4.

## Exports of Coal Produced in Canada During 1911-12-13.

Exported to	1911.		1912.			1913.		
	Tons.	Value.	Tons.	Per cent.	Value.	Tons.	Per cent.	Value.
		\$			\$			\$
Great Britain..	14,185	48,496	59,302	2.8	202,151	12,098	0.8	39,103
United States..	1,035,889	2,809,204	1,603,145	75.4	4,042,803	1,250,769	80.1	2,978,067
Newfoundland.	223,553	617,296	167,519	7.9	482,194	220,147	14.1	653,346
Other countries	227,012	832,075	297,167	13.9	1,094,445	79,006	5.0	290,835
Total.....	1,500,639	4,357,074	2,127,133	100.0	5,821,593	1,562,020	100.0	3,961,351

The United States is the principal market for Canadian coal exported, that country having taken 1,250,769 tons or 80.1 per cent of the total exports in 1913. There were exported to Newfoundland, 220,147 tons or 14.1 per cent of the total. Exports to Great Britain were only 12,098 tons. There were exported to Australia, 13,889 tons, and to other countries, 65,117 tons.

COAL—TABLE 5.

## Annual Exports.

Calendar Year.	Produce of Canada.	Not the produce of Canada.	Calendar Year.	Produce of Canada.	Not the produce of Canada.
	Tons.	Tons.		Tons.	Tons.
1873.....	420,683	5,403	1893.....	960,312	102,827
1874.....	310,988	12,859	1894.....	1,103,694	80,786
1875.....	250,348	14,026	1895.....	1,011,235	96,836
1876.....	248,658	4,905	1896.....	1,106,661	116,774
1877.....	301,317	4,829	1897.....	986,130	101,818
1878.....	327,959	5,468	1898.....	1,150,029	99,189
1879.....	306,648	8,468	1899.....	1,293,169	101,004
1880.....	432,188	14,217	1900.....	1,787,777	62,776
1881.....	395,382	14,245	1901.....	1,573,661	53,891
1882.....	412,682	37,576	1902.....	2,090,268	23,453
1883.....	486,811	44,388	1903.....	1,954,629	27,138
1884.....	474,405	62,665	1904.....	1,557,412	27,308
1885.....	427,937	71,003	1905.....	1,635,287	86,792
1886.....	520,703	78,443	1906.....	1,835,041	44,758
1887.....	580,065	89,098	1907.....	1,894,074	101,778
1888.....	588,627	84,316	1908.....	1,729,833	102,071
1889.....	665,315	89,294	1009.....	1,588,099	161,098
1890.....	724,486	82,534	1010.....	2,377,049	159,859
1891.....	971,259	77,827	1011.....	1,500,639	133,943
1892.....	823,733	63,088	1912.....	2,127,133	46,706
			1913.....	1,562,020	69,506

Coal imported is entered in three classes, viz.: anthracite, including anthracite dust; bituminous round and run of mine; and bituminous slack such as will pass through a  $\frac{3}{4}$ " screen. The imports of anthracite in 1913 were 4,642,057 tons valued at \$22,634,839, an average of \$4.75 per ton, showing an increase of 458,040 tons over the 1912 imports. The imports of bituminous round and run of mine in 1913 were 10,743,473 tons valued at \$21,756,658, an average of \$2.03 per ton, showing an increase of \$2,251,633 tons over the imports in 1912. The imports of bituminous slack in 1913 were 2,816,423 tons valued at \$4,157,622, or an average of \$1.48 per ton, and showing an increase of 896,470 tons over the 1912 imports. The imports of both anthracite and bituminous run of mine have more than doubled since 1906, while the imports of bituminous dust have increased over threefold during the same period.

## COAL.—TABLE 0.

## Annual Imports of Coal into Canada.

Fiscal Year.	BITUMINOUS COAL.		ANTHRACITE COAL AND ANTHRACITE DUST.		BITUMINOUS COAL DUST.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.
		\$		\$		\$
1880.....	457,040	1,220,701	516,729	1,509,060	3,565	8,877
1881.....	587,024	1,741,368	572,092	2,325,937	337	666
1882.....	636,374	1,992,081	638,273	2,660,356	471	900
1883.....	911,629	2,996,198	754,891	3,344,936	8,154	10,082
1884.....	1,118,615	3,613,470	868,000	3,831,283	12,782	14,600
1885.....	1,011,875	3,197,539	910,324	3,900,844	20,185	20,412
1886.....	930,949	2,591,554	995,425	4,028,050	36,230	36,996
1887.....	1,149,792	3,126,225	1,100,165	4,423,092	31,401	33,178
1888.....	1,231,234	3,451,661	1,213,627	5,201,875	28,808	34,730
1889.....	1,248,540	3,255,171	1,291,705	5,199,481	39,980	47,139
1890.....	1,409,282	3,528,950	1,201,335	4,595,727	53,104	29,818
1891.....	1,598,855	4,060,890	1,399,067	5,224,452	60,127	36,130
1892.....	1,615,220	4,099,221	1,479,106	5,640,346	82,001	39,840
1893.....	1,603,154	3,967,764	1,500,550	6,355,285	109,585	44,474
1894.....	1,359,509	3,615,094	1,530,522	6,354,040	117,573	49,510
1895.....	1,444,928	3,321,387	1,404,342	5,350,627	181,318	52,221
1896.....	1,538,489	3,299,025	1,574,355	5,667,996	210,386	53,742
1897.....	1,543,476	3,264,217	1,437,295	5,695,168	225,562	59,609
1898.....	1,684,024	3,179,595	1,460,701	5,874,685	229,445	45,556
1899.....	2,171,358	3,691,946	1,715,460	6,490,509	276,547	44,717
1900.....	2,439,764	4,310,964	1,654,401	6,602,912	330,174	98,349
1901.....	2,516,392	4,956,025	1,933,283	7,923,950	414,432	275,559
1902.....	3,047,392	5,712,058	1,652,451	7,021,939	489,548	264,550
1903.....	3,511,412	7,776,717	1,456,713	7,028,664	550,883	420,317
1904.....	4,053,900	9,108,208	2,275,018	10,461,223	608,041	544,128
1905.....	4,176,274	8,002,896	2,604,137	12,093,371	650,291	343,456
1906.....	4,495,550	8,360,348	2,200,863	10,304,308	747,251	489,180
Calendar Year.	Bituminous round and run of the mine.				Bituminous slack such as will pass through a 1" screen.	
1907.....	6,370,152	13,232,415	3,141,873	14,506,129	1,139,256	1,121,949
1908.....	6,025,574	12,516,743	3,160,110	14,478,536	1,111,811	1,355,677
1909.....	5,625,063	11,455,813	3,017,844	13,906,152	1,230,017	1,469,889
1910.....	5,966,466	11,919,341	3,296,235	14,735,082	1,365,281	1,795,598
1911.....	8,905,815	18,407,603	4,020,577	18,794,192	1,632,500	2,090,796
1912.....	(a) 8,491,840	16,846,727	(b) 4,184,017	20,080,388	(c) 1,919,953	2,550,922
1913.....	(a) 10,743,473	21,756,658	(b) 4,642,057	22,034,839	(c) 2,816,423	4,157,622

(a). Duty, 53 cents per ton. (b). Coal, anthracite, and anthracite coal dust; duty free. (c). Duty 14 cents per ton.

†In the anthracite column the imports show a very considerable increase in 1888 over 1887, an increase of over 94 per cent, the falling off again in 1889 being quite as remarkable. The average values per ton for the three years 1887, 1888, and 1889, were \$4.02, \$2.47, and \$4.03, respectively. Although a duty of 50 cents per ton on anthracite coal was removed May 13, 1887, it is hardly thought this would account for the changes indicated, and unless some error may possibly have crept into the Trade and Navigation report, no explanation is available.

The total consumption of coal in Canada during 1913 deduced from the records of production, exports, and imports, was 31,582,545 tons, as compared with 26,934,800 tons in 1912, an increase of 4,647,745 tons, or 17 per cent. Of the total consumption during the past year 13,450,158 tons, or 42.6 per cent was domestic coal and 18,132,387 tons, or 57.4 per cent, imported coal.

The per capita consumption in 1913, based on an estimate of the population made by the Census Office, was approximately 4.071 tons as compared with 3.596 tons per capita consumed in 1912.

### Consumption of Coal in Canada, 1912-1913.

	1912.		1913.	
	Tons.	Tons.	Tons.	Tons.
Production, Table 3.....	14,512,829		15,012,178	
Exports of Canada, Table 4.....	2,127,133		1,562,020	
Home consumption of Canadian coal.....		12,385,690		13,450,138
Imports, Table 6.....	14,595,810		18,201,953	
Exports not produce of Canada, Table 4.....	46,706		69,566	
Canadian consumption of imported coal.....		14,549,104		18,132,387
Total consumption of coal in Canada.....		26,934,800		31,582,545

COAL.—TABLE 7.

### Annual Consumption of Coal in Canada.

Calendar Year.	Can- adian.	In- ported.	Total.	Per- centage Can- adian.	Per- centage im- ported.	Con- sumption per capita.
	Tons.	Tons.	Tons.	%	%	Tons.
1886.....	1,595,950	1,884,161	3,480,111	45.0	54.1	0.758
1887.....	1,848,365	2,192,260	4,040,625	45.7	54.3	0.871
1888.....	2,013,925	3,314,353	5,328,278	37.8	62.2	1.137
1889.....	1,992,988	2,490,931	4,483,919	44.4	55.6	0.946
1890.....	2,360,196	2,581,187	4,941,383	47.8	52.2	1.031
1891.....	2,606,490	2,980,222	5,586,712	46.7	53.3	1.153
1892.....	2,464,012	3,082,429	5,546,441	44.4	55.6	1.133
1893.....	2,823,187	3,110,462	5,933,649	47.6	52.4	1.198
1894.....	2,743,376	2,917,818	5,661,194	48.5	51.5	1.130
1895.....	2,467,109	2,933,752	5,400,861	45.7	54.3	1.066
1896.....	2,639,055	3,206,456	5,845,511	45.1	54.9	1.140
1897.....	2,799,977	3,124,485	5,924,462	47.3	52.7	1.143
1898.....	3,023,079	3,274,981	6,298,060	48.0	52.0	1.200
1899.....	3,631,882	4,092,361	7,724,243	47.0	53.0	1.454
1900.....	3,989,542	4,361,563	8,351,105	47.8	52.2	1.561
1901.....	4,912,664	4,810,213	9,722,877	50.5	49.5	1.810
1902.....	5,376,413	5,165,938	10,542,351	51.0	49.0	1.927
1903.....	6,005,735	5,491,870	11,507,605	52.2	47.8	2.055
1904.....	6,697,183	6,909,651	13,606,834	49.2	50.8	2.346
1905.....	7,032,661	7,343,880	14,376,541	48.9	51.1	2.362
1906.....	7,927,560	7,398,906	15,326,466	51.7	48.3	2.425
1907.....	8,617,352	10,549,503	19,166,855	45.0	55.0	2.947
1908.....	9,156,478	10,195,424	19,351,902	47.3	52.7	2.820
1909.....	8,913,376	9,711,826	18,625,202	47.9	52.1	2.682
1910.....	10,532,103	10,438,123	20,970,226	50.2	49.8	2.960
1911.....	9,822,749	14,424,949	24,247,698	40.5	59.5	3.384
1912.....	12,385,696	14,549,104	26,934,800	46.0	54.0	3.596
1913.....	13,450,138	18,132,387	31,582,545	42.6	57.4	4.071

### Nova Scotia.

The production of coal in Nova Scotia in 1913 was reported as 7,980,073 tons, as compared with a production of 7,783,888 tons in 1912, showing an increase of 196,185 tons or 2.52 per cent. Bituminous coal only is mined in this Province and the industry is concentrated in the hands of eleven operating companies, one of these alone, the Dominion Coal Company, being credited with 70 per cent of the output of the Province and 37 per cent of the total production in Canada.

In the production in 1913 the quantity sold for consumption in Canada was 6,269,722 tons, while 417,035 tons were reported as sold for export to the United States, and 263,189 tons sold for export to other countries; 723,067 tons were used for colliery consumption and by workmen, and 307,060 tons were used by colliery operators in making coke and in steel making, etc. A considerable tonnage of coal sold for consumption in Canada was also used in making coke, the total tonnage used for coke-making in the Province being 1,109,629 tons. Of the total sales, about 37 per cent was for consumption within the Province; about 35 per cent was marketed in the Province of Quebec. The adjacent Provinces of New Brunswick and Prince Edward Island, and the colony of Newfoundland, took in 1913, over 15 per cent. Only 6.7 per cent was marketed in the United States and 3.8 per cent was sold for bunker coal.

In 1912 the distribution of the production was as follows: sold for consumption in Canada, 6,123,348 tons; sold for export to the United States, 482,597 tons; sold for export to other countries, 193,274 tons; and for colliery consumption and by workmen, 731,315 tons; used by colliery operatives in making coke, and in steel making, etc., 253,354 tons.

There are five principal coal-fields in the Province, that affording the largest production being the Sydney coal-field in Cape Breton county. The production in Cape Breton county in 1913 was 6,164,036 tons or 77 per cent of the total; Pictou county produced 818,216 tons or 10 per cent of the total; Cumberland county produced 670,208 tons or 8 per cent, and Inverness 327,613 tons or 4 per cent of the total.

Annual statistics of the production of coal in Nova Scotia since 1872 in both long and short tons and the production by counties during the past eight years, covering the calendar year, are shown in accompanying tables. The statistics collected and published by the Provincial Department of Mines cover the fiscal year ending September 30, and the details of colliery output during the year ending September 30, 1913, the colliery output during the last three fiscal years, and the distribution of coal sold during the same periods, are also tabulated.

Coal Production by Companies, Nova Scotia, 1913, in Tons of 2,000 Pounds.

	Total sales,	Used.		Production, <sup>2</sup>	Stocks.		Losses, <sup>3</sup>	Output.	
		For coke, <sup>1</sup>	Colliery consumpt'n.		Workmen.	Jan. 1.			Dec. 31.
Inverness Ry. and Coal Co.	291,086	7,421	21,631	7,475	478	1,942	31	329,164	
Sydney Coal Co., Ltd.	5,950	.....	50	6,050	10	30	.....	6,070	
Dominion Coal Co., Ltd.	4,773,766	.....	333,990	59,790	239,579	326,919	52,961	5,307,847	
Nova Scotia Steel and Coal Co., Ltd.	572,835	282,176	30,733	19,377	8,960	15,120	1,481	912,682	
The Colonial Coal Co., Ltd.	71,943	.....	4,863	1,207	1,238	486	.....	77,261	
Cape Breton Coal, Iron and Ry. Co.	3,325	.....	3,680	40	.....	2,029	.....	9,435	
Acadia Coal Co., Ltd.	521,717	.....	69,461	13,677	3,040	300	.....	603,815	
Intercolonial Coal Mining Co.	155,479	17,463	33,355	7,034	784	785	.....	213,362	
Maritime Coal, Ry., and Power Co.	145,880	.....	22,881	3,115	.....	.....	.....	171,876	
Dominion Coal Co., Ltd. (Springhill)	347,039	.....	67,451	11,873	2,132	2,975	.....	427,206	
Minudie Coal Co., Ltd.	58,099	.....	8,983	1,965	.....	.....	4,471	73,418	
Atlantic Grindstone, Coal and Ry. Co.	2,827	.....	110	85	.....	22	.....	3,044	
	6,949,946	307,060	597,218	125,847	256,221	352,306	58,944	8,135,164	

<sup>1</sup> Includes also coal used by producers for steel making and other purposes, and for making briquettes.

<sup>2</sup> Production is obtained by adding sales and coal used.

<sup>3</sup> Complete records of losses are not furnished by all producers.

**Coal Production by Companies, Nova Scotia, 1914, in Tons of 2,000 Pounds.**

	Total Sales.	USED.			Production. <sup>1</sup>	RESERVE.		Losses. <sup>2</sup>	Output.
		For Coke. <sup>3</sup>	Colliery consumpt'n.	Workmen.		Jan. 1.	Dec. 31.		
Laverness Ry. and Coal Co.....	280,811	3,967	21,677	6,974	313,431	2,428	478	1,353	312,836
Sydney Coal Co., Ltd.....	5,643	.....	196	123	5,672	.....	.....	.....	5,672
Dominion Coal Co., Ltd.....	4,617,274	.....	324,273	51,356	4,993,103	169,062	160,777	70,043	5,654,861
Nova Scotia Steel and Coal Co., Ltd..	648,872	226,294	41,405	18,404	934,575	1,563	8,969	459	942,511
The Colonial Coal Co., Ltd.....	31,242	1,741	1,655	634	35,272	255	397	626	36,050
Acadia Coal Co., Ltd.....	413,790	.....	84,913	12,782	511,485	28,593	3,041	.....	487,923
Intercolonial Coal Mining Co.....	206,750	21,350	38,314	7,648	274,062	3,893	784	6,793	277,746
Cumberland Ry. and Coal Co.....	389,194	.....	72,246	13,046	474,486	7,277	2,672	167	469,368
Maritime Coal, Ry., and Power Co..	149,066	.....	25,526	4,384	178,976	.....	.....	.....	175,978
Minudie Coal Co., Ltd.....	55,813	.....	4,305	1,344	61,462	.....	.....	6,625	67,467
Atlantic Grindstone Coal and Ry. Co.	.....	.....	.....	.....	168	.....	.....	.....	168
Riverside Mine (Eastern Coal Co., Ltd.)	896	.....	.....	.....	896	.....	.....	.....	896
	<b>6,799,219</b>	<b>253,354</b>	<b>614,450</b>	<b>116,895</b>	<b>7,783,898</b>	<b>311,049</b>	<b>176,300</b>	<b>85,416</b>	<b>7,934,754</b>

<sup>1</sup> Incl. des also coal used by producers for steel making and other purposes, and for making briquettes.

<sup>2</sup> Production is obtained by adding sales and coal used.

<sup>3</sup> Complete records of losses are not furnished by all producers.



COAL.—TABLE 8.  
Nova Scotia: Output, Sales, Colliery Consumption, and Production.

Calendar Year.	Output, tons, 2,240 lbs.	Sold or used, tons, 2,240 lbs.	Colliery consumption, tons, 2,240 lbs.	Production, tons, 2,240 lbs.	Output, tons, 2,000 lbs.	Sold or used, tons, 2,000 lbs.	Colliery consumption, tons, 2,000 lbs.	Production, tons, 2,000 lbs.	Price per ton, 2,240 lbs.	Value of production.
									\$ c.	\$
1872	880,950	785,914	110,341	896,255	966,664	880,234	123,582	1,003,806	1 75	1,568,446
1873	1,051,467	881,106	106,398	989,504	1,177,645	966,504	121,406	1,108,243	1 75	1,731,632
1874	872,750	749,127	119,582	868,709	977,446	839,022	133,932	972,954	1 75	1,559,240
1875	781,165	706,735	124,110	830,905	874,905	791,619	159,003	613	1 75	1,454,664
1876	709,646	634,207	113,788	747,905	794,804	710,312	157,443	837,755	1 75	1,306,961
1877	777,496	687,065	98,811	785,906	848,386	769,513	110,702	860,215	1 75	1,373,339
1878	777,603	693,311	88,627	782,138	863,075	776,732	99,262	875,964	1 75	1,368,741
1879	788,271	688,634	84,787	773,411	882,863	771,259	94,961	866,240	1 75	1,332,460
1880	1,032,710	951,659	86,831	1,051,490	1,156,635	1,069,218	108,451	1,177,669	1 75	1,846,106
1881	1,124,270	1,035,014	107,888	1,142,902	1,259,216	1,159,216	120,821	1,280,050	1 75	2,000,679
1882	1,365,811	1,250,179	111,381	1,377,560	1,529,788	1,400,300	124,447	1,524,947	1 75	2,382,729
1883	1,422,553	1,297,523	111,949	1,401,472	1,503,250	1,453,226	125,353	1,578,600	1 75	2,466,576
1884	1,389,295	1,261,650	116,769	1,378,419	1,558,011	1,413,048	130,781	1,543,829	1 75	2,418,233
1885	1,355,205	1,254,510	137,624	1,382,134	1,514,470	1,405,051	142,959	1,547,990	1 75	2,353,152
1886	1,502,611	1,373,666	142,221	1,516,867	1,632,924	1,538,506	156,550	1,698,018	1 75	2,601,657
1887	1,670,830	1,519,784	159,777	1,659,461	1,871,330	1,702,046	176,336	1,858,596	1 75	2,904,735
1888	1,776,128	1,576,692	157,443	1,734,135	1,989,265	1,765,885	192,251	1,942,251	1 75	2,864,735
1889	1,756,279	1,555,107	157,443	1,713,238	1,967,032	1,741,750	177,107	1,918,877	1 75	2,898,167
1890	1,984,001	1,786,111	16,240	1,947,351	2,222,061	2,000,444	180,589	2,181,625	1 75	3,407,964
1891	2,044,784	1,849,941	174,983	2,044,925	2,390,158	2,071,913	195,981	2,267,919	1 75	3,543,624
1892	1,942,780	1,732,354	175,025	1,928,026	2,175,913	1,963,286	196,103	2,159,289	1 75	3,350,194
1893	2,223,042	1,977,543	205,425	2,182,968	2,489,907	2,218,448	250,676	2,444,921	1 75	3,718,790
1894	2,250,631	2,040,920	196,206	2,247,126	2,590,707	2,308,231	219,751	2,527,682	1 75	3,949,970
1895	1,999,756	1,793,078	195,679	1,969,737	2,239,127	2,068,270	216,875	2,283,145	1 75	3,476,355
1896	2,292,675	2,016,828	192,913	2,229,808	2,537,706	2,202,447	230,522	2,432,554	1 75	3,919,355
1897	2,540,031	2,011,672	181,716	2,226,388	2,820,835	2,590,632	230,522	2,568,579	1 75	3,986,170
1898	2,262,656	2,121,126	177,428	2,288,354	2,544,175	2,373,661	187,519	2,563,180	1 75	3,804,970
1899	2,865,443	2,633,989	177,460	2,811,449	3,209,246	2,950,567	198,775	3,148,822	2 00	5,022,808
1900	3,298,791	2,998,737	236,563	3,255,369	3,694,646	3,358,585	237,068	3,623,326	2 50	8,085,250
1901	3,821,633	3,411,127	301,434	3,712,561	4,279,557	3,820,462	454,702	4,136,068	2 50	9,216,616
1902	4,725,480	4,229,120	379,198	4,608,318	5,292,538	4,736,614	554,702	5,113,316	2 00	10,035,346
1903	5,213,562	4,565,720	481,903	5,047,623	5,841,129	5,113,607	727,523	5,839,731	2 00	11,663,328
1904	5,131,985	4,551,740	144,904	4,996,644	5,747,323	5,067,949	679,374	5,596,241	2 00	9,993,298

COAL.—TABLE 8—Continued.

## Nova Scotia: Output, Sales, Colliery Consumption, and Production.

Calendar Year.	Output tons, 2,240 lbs.	Sold or used, tons, 2,240 lbs.	Colliery consump- tion, tons, 2,240 lbs.	Production, tons, 2,240 lbs.	Output, tons, 2,000 lbs.	Sold or used, tons, 2,000 lbs.	Colliery consump- tion, tons, 2,000 lbs.	Production* tons, 2,000 lbs.	Price per ton, 2,240 lbs.	Value of production \$
1905	5,197,877	4,613,818	427,774	5,011,592	5,821,622	5,167,476	479,107	5,646,583	2 00	10,083,184
1906	5,844,813	5,093,131	460,891	5,554,022	6,546,191	5,704,307	516,198	6,220,605	2 00	11,108,044
1907	5,775,503	5,236,077	437,256	5,673,333	6,468,583	5,864,406	489,727	6,354,133	2 25	12,764,999
1908	6,076,330	5,224,787	576,509	5,939,767	6,805,489	5,851,761	645,690	6,652,539	2 25	13,364,476
1909	5,106,135	4,524,020	522,479	5,046,508	5,718,871	5,066,912	585,177	5,652,089	2 25	11,354,643
1910	5,817,109	5,199,715	542,376	5,742,091	6,515,162	5,823,681	607,461	6,431,142	2 25	12,919,705
1911	6,362,099	5,676,857	577,089	6,233,946	7,125,551	6,358,080	646,340	7,004,420	2 25	14,071,379
1912	6,985,239	6,296,940	652,960	6,949,900	7,834,724	7,052,573	731,315	7,783,888	2 50	17,374,750
1913	7,263,485	6,479,469	645,596	7,125,065	8,135,104	7,257,006	723,067	7,980,073	2 50	17,812,663

\*This production is obtained by adding sales and colliery consumption.

COAL.—TABLE 9.

## Nova Scotia: Coal Trade by Counties, in Short Tons, Calendar Years Since 1906.

Calendar Year.	CUMBERLAND.		PICTOU.		CAPE BRETON.		OTHER COUNTIES.		Total.	
	Raised.	Sales.	Raised.	Sales.	Raised.	Sales.	Raised.	Sales.	Raised.	Sales.
	1906.....	659,734	566,308	769,496	657,310	4,804,407	4,221,293	312,554	259,396	6,546,191
1907.....	534,047	445,288	840,533	729,043	4,698,147	4,346,180	395,836	343,895	6,468,563	5,884,406
1908.....	662,157	530,648	849,802	678,025	4,840,653	4,267,346	452,877	375,742	6,808,489	5,851,761
1909.....	494,919	403,371	743,860	599,743	4,081,333	3,723,135	398,759	340,663	5,718,871	5,006,912
1910.....	350,363	288,706	714,846	588,678	5,035,800	4,571,347	414,153	374,960	6,515,162	5,823,681
1911.....	538,296	436,125	833,966	691,852	5,405,355	4,917,902	347,944	312,201	7,125,551	6,358,080
1912.....	716,914	595,138	765,678	641,890	6,039,298	5,580,765	342,836	284,780	7,834,724	7,052,573
1913.....	675,544	553,845	817,177	694,689	6,313,275	5,709,995	329,108	298,507	8,135,104	7,257,066

Sales include coal used for making coke and steel.

COAL.

Production and Sales by Companies, Nova Scotia, Year Ending September 30, 1913, in Short Tons.

Name of company.	Output.	Sales.	Colliery consumption.	Supplied workmen.	Supplied locomotive.	Reported unsaleable.	On hand at close of year.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Doninion Coal Co., Ltd.	5,285,968	4,823,057	328,718	57,782	79,104	2,580	
Nova Scotia Steel & Coal Co., Ltd.	908,806	847,343	35,848	22,015	31,483	3,601	
Cumberland Railway & Coal Co., Ltd.	438,964	361,862	69,188	12,333	2,563		4,420
Acadia Coal Co.	570,501	494,475	72,439	13,773	1,904		10,186
Maritime Coal, Railway & Power Co.	183,558	149,145	39,434	3,980			
Inverness Railway & Coal Co.	318,387	280,555	48,739	7,610	1,328		373
Intercolonial Coal Co.	217,512	175,315	39,265	7,282	857		350
Sydney Coal Co.	6,089	5,845	105	155	9		16
Colonial Mining Co.	64,632	59,002	5,042	1,188			
Minudic Coal Co.	70,926	56,737	7,534	1,616			
Atlantic Grindstone & Coal Co.	3,040	2,789	117	78	56		
Total	8,068,383	7,256,155	614,429	127,812	117,304	6,237	15,345

COAL.—TABLE 10.

**Nova Scotia: Output by Collieries During Fiscal Years Ending  
September 30, 1911-12-13.**

Colliery.	1911. Tons of 2,000 lbs.	1912. Tons of 2,000 lbs.	1913. Tons of 2,000 lbs.
<i>Cape Breton County.</i>			
Dominion Coal Company.....	4,360,113	4,852,198	5,285,968
Nova Scotia Steel and Coal Co.....	848,762	919,705	908,806
North Atlantic Collieries.....	53,751	4,819	.....
McKay Mining Company.....	32,571	(a)	(a)
Sydney Coal Company.....	4,129	5,143	6,089
Colonial Mining Co.....	5,023	39,422	64,632
<i>Cumberland County.</i>			
Cumberland Railway and Coal Co.....	214,871	470,939	438,964
Maritime Coal, Railway, and Power Co., Chignecto, Joggins.....	183,416	169,465	183,558
Minudie Coal Co.....	61,019	68,179	70,926
Great Northern Coal Co.....	1,419	.....	.....
Atlantic Grindstone and Coal Co.....	374	163	3,040
<i>Pictou County.</i>			
Acadia Coal Co.....	522,297	492,213	570,501
Intercolonial Coal Co.....	293,000	272,616	217,512
<i>Inverness County.</i>			
Inverness Coal and Railway Co.....	326,577	324,469	318,387
Port Hood Coal Co.....	46,135	.....	.....

(a) See Colonial Mining Co.

COAL.—TABLE 11.

Nova Scotia: Distribution of Coal Sold.

Markets.	FISCAL YEARS ENDING SEPTEMBER 30.											
	1909.		1910.		1911.		1912.		1913.			
	Tons of 2,000 lbs.	Per cent.	Tons of 2,000 lbs.	Per cent.	Tons of 2,000 lbs.	Per cent.	Tons of 2,000 lbs.	Per cent.	Tons of 2,000 lbs.	Per cent.	Tons of 2,000 lbs.	Per cent.
Nova Scotia—	1,642,716	31.77	1,681,052	30.65	2,007,192	32.25	2,197,213	31.76	2,530,566	34.88		
Transported by land.....	339,462	6.57	342,787	6.25	354,514	5.70	373,594	5.40	380,363	5.24		
Total Nova Scotia.....	1,982,178	38.34	2,023,839	36.90	2,361,706	37.95	2,570,807	37.16	2,910,929	40.12		
New Brunswick.....	607,968	11.76	594,288	10.84	606,882	9.74	732,411	10.59	724,330	9.98		
Prince Edward Island.....	88,365	1.71	89,031	1.62	90,314	1.45	103,378	1.49	107,612	1.48		
Quebec Province.....	1,689,876	32.69	2,001,882	36.49	2,315,371	37.22	2,418,086	34.95	2,458,416	33.85		
Newfoundland.....	174,988	3.39	19,224	0.36	206,299	3.32	234,719	3.25	235,810	3.28		
United States.....	359,224	6.95	328,348	5.93	372,177	5.98	462,035	6.68	524,562	7.23		
St. Pierre.....	11,463	0.22	8,405	0.15	10,107	0.16	10,535	0.15	7,449	0.10		
Bunker coal.....	254,681	4.92	243,807	4.45	229,243	3.68	265,142	3.83	262,278	3.62		
Other countries.....	846	0.02	.....	.....	(a) 30,841	0.50	(b) 131,816	1.90	(c) 27,160	0.37		
Total.....	5,169,599	100.00	5,484,524	100.00	6,223,240	100.00	6,918,929	100.00	7,700,000	100.00		

	(a) Tons.	Per cent.	(b) Tons.	Per cent.	(c) Tons.	Per cent.
For time chartered boats.....	28,610	0.46	28,972	0.42	23,958	0.33
Other countries.....	2,231	0.04	102,844	1.48	3,202	0.04
Total.....	30,841	0.50	131,816	1.90	27,160	0.37

**Number and Classes of Workmen Employed at Each Mine in Nova Scotia, Year  
Ending September 30, 1913.**

Company.	UNDERGROUND.				SURFACE.				CONSTRUCTION.				TOTALS.		HORSES.		Pit days.
	Skilled Labour.	Labourers	Boys.	Days.	Skilled Labour.	Labourers	Boys.	Days.	Skilled Labour.	Labourers	Boys.	Days.	Persons.	Days.	Above.	Below.	
Dominion Coal Co.	3,209	1,969	245	1,630,458	578	383	68	419,164					6,452	2,049,622	83	499	300
Nova Scotia Steel and Coal Co.	1,148	950	193	594,326	157	959	23	127,720					2,730	722,046	5	90	289
Cumberland Railway and Coal Co.	442	302	47	230,494	79	104	16	58,673	13	8	1	6,278	1,012	295,445	14	45	294
Acadia Coal Co.	410	379	69	268,726	96	248	17	129,833					1,219	398,559	25	53	285
Intercolonial Coal Co.	370	116	55	141,386	94	106	17	61,062	1	1		210	760	202,658	15	29	275
Loggins Mines.	290	71	4	114,342	25	37	8	21,765					435	136,107	5	11	298
Chignecto Mines.	50	7	3	5,980	4	7	3	1,810					74	7,790	1	1	139
Inverness Railway and Coal Co.	311	145	26	140,811	50	78	14	41,952					24	182,763	7	35	294
Sydney Coal Co.	8	4		2,691	2	1		908					15	3,599	1	2	269
Minadie Coal Co.	102	24	14	39,506	24	19	8	15,245	4			904	195	55,655	3	3	300
Colonial Coal Co.	71	25	1	22,639	18	19		8,139	4			908	138		1	6	253
Atlantic Granite Co.	7			1,904	1	2		638					10				273
Totals.	6,418	3,992	637	3,193,263	1,128	1,263	174	885,909	22	9	1	8,300	13,664	4,088,472	160	774	.....

### New Brunswick.

The total shipments of coal from mines in this Province, as estimated by the Provincial Department of Public Works, were 68,311 tons, and adding 2,000 tons for colliery consumption and workmen, etc., the production is placed at 70,311 tons, which is the largest yearly production recorded for the Province.

Mining operations are carried on in the Grand Lake coal-field, in Queens county, in which a large number of very small mines or openings were at one time intermittently operated. In 1913, however, about 81 per cent was directly reported by three companies. The Minto Coal Co., Ltd., is the largest operator and produced, in 1913, 41,938 tons. The Rothwell Coal Co., Ltd., produced 9,408 tons.

### New Brunswick: Annual Production.

COAL.—TABLE 12.

Calendar Year.	Tons.	Value.	Value per ton.	Calendar Year.	Tons.	Value.	Value per ton.
		\$	\$ cts.			\$	\$ cts.
1887.....	10,010	23,007	2 35	1900.....	10,000	15,000	1 50
1888.....	5,730	11,050	1 93	1901.....	17,630	51,857	2 94
1889.....	5,673	11,733	2 07	1902.....	18,795	39,680	2 11
1890.....	7,110	13,850	1 95	1903.....	16,000	40,000	2 50
1891.....	5,422	11,030	2 03	1904.....	9,112	18,224	2 00
1892.....	6,763	9,375	1 39	1905.....	29,400	58,800	2 00
1893.....	6,200	9,837	1 59	1906.....	34,076	68,152	2 00
1894.....	6,469	10,264	1 59	1907.....	34,584	77,814	2 25
1895.....	9,500	14,250	1 50	1908.....	60,000	135,000	2 25
1896.....	7,500	11,250	1 50	1909.....	49,029	98,496	2 25
1897.....	6,000	9,000	1 50	1910.....	55,455	110,910	2 00
1898.....	6,160	9,240	1 50	1911.....	55,781	111,562	2 00
1899.....	10,528	15,792	1 50	1912.....	44,780	89,560	2 00
				1913.....	70,311	166,637	2 37

### Saskatchewan.

Lignite coal only has been mined in Saskatchewan, and in this Province, as well as in Alberta, a large number of small openings have been made. The total production in 1913, as reported by 29 separate collieries, was 212,897 tons valued at \$358,192, a decrease of 12,445 tons or 5.5 per cent from the production in 1912. Of the 1913 production 195,954 tons were sold for consumption in Canada and 16,943 tons were used by the producers for colliery consumption, for workmen, and in brickmaking.

The output which has hitherto been obtained entirely from the Estevan and Souris fields in the southeastern portion of the Province is used mainly for domestic purposes within the Province and in Manitoba. During the



past three years, however, mining operations have been commenced in a district about 115 miles east of the Estevan field and 40 miles south of Moosejaw.

COAL.—TABLE 13.

## Saskatchewan: Annual Production.

Calendar Year.	Tons.	Value.	Average value per ton.	Calendar Year.	Tons.	Value.	Average value per ton.
		\$	\$ cts.			\$	\$ cts.
1887.....	(a) 400	800	2 00	1902.....	70,400	112,640	1 52
1890.....	200	200	1 00	1903.....	116,703	169,618	1 45
1891.....				1904.....	124,885	187,021	1 50
1892.....	5,400	9,325	1 73	1905.....	107,596	152,334	1 42
1893.....	8,325	12,485	1 50	1906.....	108,398	164,146	1 51
1894.....	(b) 15,051	15,153	1 01	1906.....	151,232	252,437	1 67
1895.....	15,769	31,538	2 00	1907.....	150,556	253,790	1 69
1896.....	16,706	25,059	1 50	1908.....	192,125	296,339	1 54
1897.....	25,000	37,500	1 50	1910.....	181,156	293,923	1 62
1898.....	25,000	37,500	1 50	1911.....	206,779	347,248	1 68
1899.....	25,000	37,500	1 50	1912.....	225,342	368,135	1 63
1900.....	40,500	60,750	1 50	1913.....	212,897	358,192	1 68
1901.....	45,000	72,000	1 60				

(a) From Turtle Mountain district, Manitoba.

(b) Including a small quantity from the Turtle Mountain district, Manitoba.

## Alberta.

The total production of marketable coal in Alberta in 1913, including lignite, bituminous, and anthracite was, according to returns received by this Division, 4,014,755 tons valued at \$10,418,941 or an average of \$2.59 per ton, as compared with a production in 1912 of 3,240,577 tons valued at \$8,113,525 or an average of \$2.50 per ton, an increase of 774,178 tons or 23.9 per cent.

Many new collieries are opened each year and the production reported to the Provincial Department of Public Works, quoted below, is somewhat higher than the above figures.

Notwithstanding the large number of small collieries operated in this Province, over 96 per cent of the total production was obtained from thirty-nine collieries operated by thirty-five companies, each colliery having an output exceeding 10,000 tons. Thirteen of these collieries had each an output exceeding 100,000 tons.

Of the total production in 1913, 3,527,772 tons were sold for home consumption in Canada, and 139,536 tons for export to the United States; the producers used 243,370 tons for colliery consumption and for workmen, 104,077 tons were used for making coke.





COAL.—TABLE 14.

## Alberta: Annual Production.

Calendar Year.	Tons.	Value.	Average value per ton.	Calendar Year.	Tons.	Value.	Average value per ton.
		\$	¢ cts.			\$	¢ cts.
1887.....	74,152	157,577	2 13	1900.....	311,450	778,625	2 50
1888.....	115,124	183,354	1 59	1901.....	340,275	850,687	2 50
1889.....	97,364	179,640	1 85	1902.....	402,819	960,601	2 39
1890.....	128,753	198,298	1 54	1903.....	495,893	1,117,541	2 25
1891.....	174,131	437,243	2 51	1904.....	661,732	1,404,524	2 12
1892.....	178,970	460,605	2 57	1905.....	931,917	1,993,915	2 14
1893.....	230,070	586,260	2 55	1906.....	1,246,360	2,614,762	2 10
1894.....	184,940	473,827	2 56	1907.....	1,591,579	3,836,286	2 41
1895.....	169,885	382,526	2 25	1908.....	1,685,661	4,127,311	2 45
1896.....	209,162	581,832	2 78	1909.....	1,994,741	4,838,109	2 43
1897.....	242,163	630,408	2 60	1910.....	2,894,469	7,065,736	2 44
1898.....	315,088	783,720	2 50	1911.....	1,511,036	3,979,264	2 63
1899.....	309,600	774,000	2 50	1912.....	3,240,577	8,113,525	2 50
				1913.....	4,014,755	10,418,941	2 59

According to statistics published by the Coal Mines Branch of the Department of Public Works, Province of Alberta, the total output of coal in that Province in 1913, including a considerable tonnage of unmarketable slack, etc., was 4,306,346 tons. The total sales (not including briquettes) were 3,618,161 tons, and comprised 2,687,632 tons sold in Alberta, 792,328 tons sold in other provinces, and 138,201 tons sold for export to the United States. Of the output, 99,623 tons were used in the manufacture of briquettes and the sales of briquettes are reported as 130,768 tons. The quantity of slack put on the waste heaps is reported as 179,981 tons.

The following tables showing the total output, the output by districts during 1913, and the labour employed, have been kindly furnished by Mr. John T. Stirling, Provincial Inspector of Mines.

## Output of Coal: Alberta.

Tons of 2,000 lbs.	Crowsnest pass.	Calgary.	Lethbridge.	Edmonton.	Total.
Sold for consumption in Alberta..	1,441,327	361,350	251,402	630,553	2,684,632
Sold for consumption in other provinces.....	98,397	58,77	533,820	101,333	792,328
Sold for export to the United States.....	134,673	.....	3,528	.....	138,201
Total sales.....	1,674,397	423,128	788,750	731,886	3,618,161
Used in making briquettes.....	.....	99,623	.....	.....	99,623
Used in making coke.....	101,012	.....	.....	.....	104,012
Used under colliery boilers.....	71,693	50,909	112,528	41,817	276,947
Difference in stocks.....	- 842	+ 37,092	- 8,407	- 41,221	+ 27,622
Slack put on waste heap.....	175	16,709	73,119	89,948	179,981
Total output.....	1,849,435	627,461	966,020	863,430	4,306,346

## Output of Bituminous Coal.

Tons of 2,000 lbs.	Crowsnest pass.	Calgary.	Lethbridge.	Edmonton.	Total.
Sold for consumption in Alberta..	1,441,327	249,199	.....	198,712	1,889,238
Sold for consumption in other provinces.....	98,397	2,925	.....	9,866	111,188
Sold for export to the United States.....	134,673	.....	.....	.....	134,673
Total sales.....	1,674,397	252,124	.....	208,578	2,135,099
Used in making coke.....	101,012	.....	.....	.....	104,012
Used under colliery boilers.....	71,693	13,394	.....	6,691	91,778
To stock.....	842	34,592	.....	- 560	+ 33,160
Slack put on waste heap.....	175	1,500	.....	8,677	10,352
Total.....	1,849,435	301,580	.....	223,386	2,374,401

## Output of Anthracite Coal.

Tons of 2,000 lbs.	CALGARY DISTRICT.	
	Coal.	Briquettes.
Sold for consumption in Alberta.....	21,721	81,472
Sold for consumption in other provinces.....	11,457	49,296
Sold for export to the United States.....	.....	.....
Total sales.....	33,178	130,768
Used under colliery boilers.....	33,869	.....
Used in making briquettes.....	99,623	.....
Difference in stock.....	+ 2,050	+ 93
Total.....	168,720	130,861

## Output of Lignite Coal.

Tons of 2,000 lbs.	Crowsnest pass.	Calgary.	Lethbridge	Edmonton.	Total.
Sold for consumption in Alberta		93,430	251,402	431,841	776,673
Sold for consumption in other provinces		44,394	533,820	91,467	669,681
Sold for export to the United States.		3,528			3,528
Total sales		141,352	785,222	523,308	1,449,882
Used under colliery boilers		3,646	112,528	35,128	151,302
Slack put on waste heap		15,209	73,149	81,271	169,629
Difference in stocks		+	480	-	8,407
				+	339
Total output		157,161	966,020	640,014	1,763,235

## Output of Coal in Alberta by Districts.

District.	Number of persons employed	Lignite.	Bituminous.	Anthracite.
Crowsnest pass.	2,331		1,772,575	
Pincher Creek	115		76,800	
Lethbridge	1,486	744,907		
Taber	500	205,953		
Bow Island	64	12,626		
Milk River	25	2,474		
Banff	1,108		270,220	108,720
Medicine Hat	93	38,451		
Okotoks	8	1,285		
Aldersyde	39	10,688		
Carstairs	94	1,240	31,360	
Carbon	26	5,758		
Trechu	3	1,453		
Drumheller	226	52,804		
Three Hills	43	7,200		
Laconbe	127	34,192		
Wetaskiwin	150	44,801		
Edmonton	542	255,020		
St. Albert	83	7,448		
Tofield	82	43,436		
Cardiff	202	247,201		
Pembina	130	41,473		
Yellowhead pass	314		88,357	
Jasper Park	176		135,020	
Total	8,068	1,763,225	2,374,401	168,720

## Average Number of Persons Employed.

Character of labour.	Bituminous.		Anthracite.		Lignite.		Total.	
	Above.	Below.	Above.	Below.	Above.	Below.	Above.	Below.
Supervision and clerical assistance	92	98	10	8	149	135	251	241
Miners and helpers		1,584		184		2,067		3,855
Mechanics or skilled labour	223	131	56	2	237	148	516	281
Other employees	602	832	160	69	702	559	1,464	1,460
Total	917	2,645	226	263	1,088	2,929	2,231	5,827

### British Columbia.

The total production of coal in British Columbia in 1913 from eighteen collieries operated by fourteen companies was 2,714,420 tons valued at \$8,482,562, as compared with a production of 3,208,997 tons valued at \$10,028,116 in 1912, showing a falling off of 494,577 tons or over 15 per cent.

The production in 1913 has been exceeded in only two previous years, 1912 and 1910.

With respect to conditions which have affected the output during 1913, the Provincial Mineralogist in his annual report states:—"Such a falling off in the output calls for an explanation, and it can be definitely stated that the shortage is in no way attributable to the mines themselves, nor to, at that time, any diminished market, but has been caused entirely by labour troubles, which, starting at the Canadian Collieries' Comox mines, spread to all the Vancouver Island collieries, and which during the whole year greatly retarded the production of all the collieries.

"While it is true that, at the time the strike began, there was an ample market for the output of all the Island collieries, such was not the case at the close of the year: for the shutting off of the coal supply by the strike, and the uncertainty regarding it in the future, drove the consumer to seek other sources for fuel, resulting in many important cases, in the substitution of California crude oil, so that, at the end of the year, while the strike is still theoretically on, the mines are operating with more than sufficient men to supply the remaining market, and these collieries are not working full time.

"The market having thus been alienated, it will be some time before it can be recovered, and the loss to employer and employee will continue long after the original cause of grievance may have been settled.

"While the Province as a whole shows a decrease, as already stated, it must be noted that this decrease is confined to Vancouver Island collieries and for the reasons given, whereas the other districts each show a material increase."

Of the total production in 1913, 1,711,643 tons or over 48 per cent were sold for consumption in Canada, 698,820 tons or 25.7 per cent were sold for export to the United States. The quantity used by producers in making coke was 485,271 tons or nearly 18 per cent of the production, and 218,686 tons or 8 per cent were used for colliery consumption and by workmen.

In 1912 the sales for consumption in Canada were 1,410,014 tons, while 1,082,998 tons were sold for export, 444,665 tons were used in making coke, and 271,320 tons for colliery consumption. The chief falling-off, therefore, was in coal sold for export.

The production of coal on Vancouver island during 1913 was 927,880 tons, as compared with 1,571,683 tons in 1912 and 1,789,530 tons in 1910.

The production of the Crowsnest mines in 1913 was 1,492,109 tons, as compared with 1,413,583 tons in 1912 and 499,580 tons in 1911.

The production in the Nicola, Princeton, and other fields in 1913 was 294,431 tons, as compared with 223,731 tons in 1912 and 253,421 tons in 1911.

The Provincial Mineralogist further states:—

“These fields from their geographic positions—the one at the extreme eastern boundary of the Province, and the other at the extreme western edge—are in no way competitors in the market, their markets being quite separate and ruled by completely different conditions.

“The market of the East Kootenay field is provided primarily by the railways of the southeastern part of the Province and of the northern parts of the adjoining States of Montana and Washington, approximately two-thirds of the coal sold as such being exported to those States, while the other third went to supply the demands of the southeastern part of the Province—its domestic needs, its railways, steamboats, mines and smelters.

“Coke, a product of the coal mines, is sold in the same markets, with the difference that the local consumption—chiefly by the smelters of Trail and the Boundary district—takes over 80 per cent of the product, while 20 per cent is exported to the States mentioned.

“As regards the marketing conditions in this field, the East Kootenays are, however, brought into direct competition with the collieries of Alberta just over the Provincial boundary line, all these collieries being in the same coal-field, with practically the same grade of coal and working under similar conditions.

“This competition has kept the price obtainable for coal at from \$2.25 to \$2.50 a ton, with little probability of any material increase in price, owing to the facility with which new collieries can be opened up and the very large reserve areas of coal limits in that district; a description of these reserves was given in the report of this Bureau for the year 1909.

“The Coast district may be subdivided into two fields—the Nicola-Princeton field and the Vancouver Island field—in which the markets differ considerably.

“In the former field the consumption is chiefly by the local railways, while a small amount finds its way to Vancouver, even under the handicap of what seems to be an excessively high freight charge.

“The Vancouver Island coal market is provided by the domestic and manufacturing requirements of the Coast cities, and of the ocean-going steamers calling at these ports.

“The demand for coal from the larger coasting steamers and from the railways has in past years diminished, as the Canadian Pacific Railway



main line engines are nearly all burning California crude oil, and a large coasting steamer burning coal is now an exception.

"Owing to the strike conditions having curtailed the output of the Island collieries, prices have been maintained as high or higher than for preceding years; in fact, the high price of coal on the coast is one of the chief reasons for the marked increase in the use of California oil fuel. It does not seem at all likely, either, that the present price of coal on the sea-board, of from \$4 to \$4.50 a ton, f.o.b., will decrease for some time".

### Coal Production by Districts, British Columbia, 1913.

Coal.	Vancouver Island.	Nicola and Princeton.	Crowsnest and East Kootenay.	Total.
	Tons.	Tons.	Tons.	Tons
Sold for consumption in Canada.....	715,259	276,528	319,856	1,311,643
Sold for export to United States.....	107,885		590,935	698,820
Sold for export to other countries.....				
Total sales.....	823,144	276,528	910,791	2,010,463
Used for making coke or brick.....			485,271	485,271
Used for colliery consumption, etc.....	104,736	17,903	96,047	218,686
Production.....	927,880	294,431	1,492,109	2,714,420

### Coal Production by Districts, British Columbia, 1912.

Coal.	Vancouver Island.	Nicola and Princeton.	Crowsnest and East Kootenay.	Total.
	Tons.	Tons.	Tons.	Tons
Sold for consumption in Canada.....	1,947,631	204,018	258,365	1,410,014
Sold for export to United States.....	340,115	3,389	617,951	961,862
Sold for export to other countries.....	121,136			121,136
Total sales.....	1,408,882	185,548	876,316	2,493,012
Used for making coke or brick.....		131	444,534	444,665
Used for colliery consumption, etc.....	162,801	15,786	92,733	271,320
Production.....	1,571,683	223,731	1,413,583	3,208,997

Coal Production by Collieries in British Columbia, in 1913, in Short Tons.

Colliery.	SALES.			Used in making coke.	Used under colliery boilers, etc.	Production.	Lost in washing.	Stocks.		Output.
	In Canada.	To United States.	To other countries.					First of year.	Last of year.	
1. Protection, No. 1.....	133,702	34,557	.....	.....	25,785	194,044	.....	1,525	290	192,809
2. Northfield.....	17,909	22,390	.....	168,259	13,388	53,687	.....	56	294	53,925
3. New East Wellington.....	89,665	21,861	.....	40,299	5,650	117,176	3,098	4,594	1,182	116,862
3. Ladysmith (Wellington).....	47,474	27,882	.....	111,526	6,344	54,538	9,732	102	830	64,798
4. Cumberland (Comox).....	348,680	75,197	.....	47,994	39,566	416,128	144,397	3,115	11,656	569,066
4. Fiddick and Richardson.....	75,197	675	.....	376,562	13,279	89,151	43,102	46,182	650	86,721
5. Squash.....	2,632	.....	.....	75,872	724	89,151	.....	875	.....	2,461
5. Michel.....	143,490	476,397	.....	2,632	43,017	924,217	.....	115	105	924,207
6. Coal Creek.....	50,703	55,737	.....	619,887	109,440	242,286	.....	115	0	242,171
6. Frosmer.....	106,162	.....	.....	109,440	113,299	244,081	24,856	778	330	265,489
7. Corbin.....	19,501	58,801	.....	106,162	27,260	244,081	.....	.....	.....	.....
8. Diamond Vale.....	6,700	.....	.....	78,302	3,223	81,525	.....	.....	.....	.....
9. Middleboro.....	114,221	.....	.....	6,700	435	7,135	.....	.....	.....	.....
10. Inland.....	127,040	.....	.....	114,221	12,878	127,099	.....	483	622	127,238
11. Princeton.....	29,765	.....	.....	127,040	1,769	128,809	.....	.....	.....	128,809
12. Other mines.....	1,802	.....	.....	26,765	2,810	29,575	.....	269	51	32,711
Total.....	1,311,643	698,820	.....	1,802	11	1,813	.....	58,200	80	1,893
			.....	2,010,463	485,463	2,714,420	225,539	16,090	16,090	2,897,840

1. Western Fuel Co.
2. Vancouver-Nanaimo Coal Mining Co.
3. The Canadian Collieries (Dunsmuir), Ltd.
4. Pacific Coast Collieries, Ltd.
5. Crownest Pass Coal Co., Ltd.
6. The Hosmer Mines, Ltd.  
(Can. Pac. Railway, Dept. of Natural Resources.)
7. Corbin Coal and Coke Co., Ltd.
8. Diamond Vale Collieries, Ltd.
9. Nicola Valley Coal and Coke Co., Ltd.
10. Inland Coal and Coke Co., Ltd.
11. Princeton Coal and Coke Co., Ltd.
12. (United Empire Coal Co., Ltd.  
(Coalmount Collieries.  
(Grand Trunk, B.C. Coal Co.

## Coal Production by Collieries in British Columbia, in 1912, in Short Tons.

Colliery.	SALES.			Total.	Used in making coke.	Used under colliery boilers, etc.	Production.	Lost in washing.	STOCKS.		Output.
	In Canada.	To United States.	To other countries.						First of year.	Last of year.	
1. Protection, No. 1.....	251,540	112,447	82,192	446,179		44,495	490,674		5,535	1,525	486,664
Douglas.....	18,697	36,838	21,725	127,260		31,721	158,951		526	168	158,623
2. New East Wellington.....	54		70	124		712	836				836
3. Ladysmith (Wellington).....	74,763	17,842		92,625		5,726	98,351		448	942	98,845
Cumberland (Comox).....	176,370	50,558		226,928		15,588	242,516		1,641	102	240,977
4. Fiddick and Richardson.....	301,302	64,598	17,149	383,049		45,087	428,136		26,307	3,115	401,944
Sucunash.....	121,497	7,831		129,328		18,704	148,032	7,703	37,167	46,182	104,750
5. Coal Creek.....	3,389		3,389			767	4,156			875	3,031
6. Michel.....	61,929	430,817		492,746	248,068	39,801	780,605		124	115	780,596
7. Hosmer.....	12,603	133,943		146,546	115,316	22,368	284,230		20	115	284,325
8. Corbin.....	103,956			103,956	81,291	23,686	211,943		1,889	778	210,832
9. Diamond Vale.....	79,876	53,192		133,068		3,868	136,936				136,936
Middlesboro.....	3,080			3,080		164	3,244				3,244
10. Inland.....	150,283			150,283		10,652	160,335		689	483	160,129
11. Princeton.....	30,000			30,000		1,239	31,239			100	31,369
12. United Empire.....	20,405	3,546		23,951		4,232	28,183	3,372			31,555
	250	250		500		40	540				540
Total.....	1,410,014	961,862	121,136	2,493,012	444,665	271,320	3,208,997	11,075	74,346	51,500	3,200,226

1. Western Fuel Co.
2. Vancouver-Nanaimo Coal Mining Co.
3. The Canadian Collieries (Dunsmuir), Ltd.
4. Pacific Coast Collieries, Ltd.
5. Crownst Pass Coal Co., Ltd.
6. The Hosmer Mines Ltd.  
(Can. Pac. Railway, Dept. of Natural Resources).
7. Corbin Coal and Coke Co., Ltd.
8. Diamond Vale Collieries, Ltd.
9. Nicola Valley Coal and Coke Co., Ltd.
10. Inland Coal and Coke Co., Ltd.
11. Princeton Coal and Land Co., Ltd.
12. United Empire Coal Co., Ltd.

COAL.—TABLE 15.

## British Columbia: Annual Production.

Calendar Year.	Output, tons, 2,240 lbs.	Home consumption, tons, 2,240 lbs.	Sold for export, tons, 2,240 lbs.	PRODUCTION*.		Price per ton, 2,240 lbs.	Value.
				Tons, 2,240 lbs.	Tons, 2,000 lbs.		
1836-52...	10,000					\$ cts.	\$
1852-59...	25,398				11,200	4 00	40,000
1859†	1,989				28,446	4 00	101,592
1860.....	14,247				2,228	4 00	7,956
1861.....	13,774				15,957	4 00	56,988
1862.....	18,118				15,427	4 00	55,096
1863.....	21,345				20,292	4 00	72,472
1864.....	28,632				23,906	4 00	85,380
1865.....	32,819				32,068	4 00	114,528
1866.....	25,115				36,757	4 00	131,276
1867.....	31,239				28,129	4 00	100,460
1868.....	44,005				34,988	4 00	124,956
1869.....	35,080				49,286	4 00	176,020
1870.....	29,843				40,098	4 00	143,208
1871-2-3..	148,459				33,424	4 00	119,372
1874.....	81,547				166,274	4 00	593,836
1875.....	110,145	25,023	56,038	81,061	90,788	3 00	243,183
1876.....	139,192	17,856	†122,329	140,185	109,361	3 00	292,932
1877.....	154,052	24,311	115,381	139,692	157,007	3 00	420,555
1878.....	170,846	26,166	164,682	190,848	156,455	3 00	419,076
1879.....	241,301	40,294	192,096	232,390	213,750	3 00	572,544
1880.....	267,595	46,513	225,849	272,362	260,277	3 00	697,170
1881.....	228,357	40,191	189,323	229,514	305,045	3 00	817,086
1882.....	282,139	56,161	232,411	288,572	323,201	3 00	688,542
1883.....	299	64,786	149,567	214,353	240,075	3 00	865,716
1884.....	070	87,388	306,478	393,866	441,130	3 00	643,059
1885.....	365,596	95,227	237,797	333,024	372,987	3 00	1,181,598
1886.....	326,636	85,987	249,205	335,192	375,415	3 00	999,072
1887.....	413,360	99,216	334,839	434,055	486,142	3 00	1,005,576
1888.....	489,301	115,953	365,714	481,677	539,467	3 00	1,302,165
1889.....	579,830	124,574	443,675	568,249	636,439	3 00	1,445,001
1890.....	678,140	177,075	508,270	685,345	767,586	3 00	1,704,747
1891.....	1,029,097	202,697	806,479	1,009,176	1,130,277	3 00	2,056,035
1892.....	826,335	196,233	640,579	836,802	937,218	3 00	3,027,528
1893.....	978,294	207,851	768,917	976,768	1,093,980	3 00	2,510,406
1894.....	1,012,953	165,776	827,642	993,418	1,112,628	3 00	2,930,204
1895.....	939,654	188,349	756,334	944,683	1,058,045	3 00	2,980,254
1896.....	894,882	261,984	634,238	896,222	1,003,769	3 00	2,831,049
1897.....	802,296	290,310	619,860	910,170	1,019,390	3 00	2,688,666
1898.....	1,136,485	375,423	752,863	1,128,286	1,263,680	3 00	2,730,510
1899.....	1,306,324	526,058	751,711	1,277,769	1,431,101	3 00	3,384,858
1900.....	1,590,178	685,667	914,184	1,599,851	1,791,833	3 00	3,833,307
1901.....	1,691,557	799,666	914,163	1,713,829	1,919,488	3 00	4,799,553
1902.....	1,641,626	837,871	776,809	1,614,680	1,808,441	3 00	5,141,487
1903.....	1,450,663	947,499	549,449	1,496,948	1,676,581	3 00	4,844,040
1904.....	1,685,698	1,129,465	533,593	1,603,058	1,862,625	3 00	4,400,844
1905.....	1,736,696	1,089,667	647,343	1,737,010	1,945,452	3 00	4,989,174
1906.....	1,899,076	1,236,476	679,829	1,916,305	2,146,262	3 00	5,211,030
1907.....	2,219,602	1,438,402	673,114	2,111,516	2,364,898	3 00	5,748,915
1908.....	2,111,931	1,456,511	597,157	2,083,668	2,333,708	3 50	7,390,306
1909.....	2,388,196	1,585,232	741,667	2,326,899	2,606,127	3 50	7,292,838
1910.....	3,152,207	1,798,873	1,175,007	2,973,880	3,330,745	3 50	8,144,147
1911.....	2,304,794	1,657,422	612,696	2,270,118	2,542,532	3 50	10,408,560
1912.....	2,857,345	1,898,213	966,963	2,865,176	3,208,997	3 50	7,945,413
1913.....	2,587,357	1,799,643	623,916	2,423,589	2,714,420	3 50	10,028,116
							8,482,562

\*This production is obtained by adding 'Home Consumption' and 'Sold for Export.'  
†52,935 tons of this amount were exported as sales without the division into 'Home Consumption' and 'Sold for Export.'  
‡Two months only.

## Yukon.

Coal mining in the Yukon district in 1913 was confined to the operations of the Five Fingers Coal Company at Tantalus in the southern Yukon, and the Northern Light Power and Coal Co., Ltd., on Coal Creek, 40 miles northwest of Dawson. The total production in 1913 was 19,722 tons valued at \$95,945.

COAL.—TABLE 16.

## Yukon Territory: Annual Production.

Calendar Year.	Tons.	Value.	Average value per ton.
		\$	¢
1901 .....	*5,864	86,230	14 70
1902 .....	4,910	37,280	7 59
1903 .....	1,849	29,584	16 00
1904 .....			
1905 .....	7,000	21,000	3 00
1906 .....	7,000	28,000	4 00
1907 .....	15,000	60,000	4 00
1908 .....	3,847	21,158	5 50
1909 .....	7,364	49,502	6 72
1910 .....	16,185	110,925	6 85
1911 .....	2,840	12,737	4 50
1912 .....	9,245	44,967	4 86
1913 .....	19,722	95,945	4 86

\*Part of this production was mined in 1900.

## COKE.

The total quantity of coke made in Canadian coke oven plants during 1913 from both domestic and imported coals was 1,517,133 tons. The quantity of coal used for this production was 2,247,913 tons, of which 1,698,912 tons were domestic coal and 549,001 tons were imported. Of the total production during the year, 67 per cent, or 1,018,632 tons, was made in by-product ovens.

In 1912, 1,406,028 tons of coke were made from 2,053,807 tons of coal, of which 1,528,509 tons were mined in Canada and 525,298 tons imported.

The quantity of coke sold or used by the producers in 1913 was 1,530,499 tons as compared with 1,411,229 tons in 1912.

The consumption of coke in Canada is much in excess of the domestic production, there being a considerable importation of coke chiefly into Ontario and Quebec for use in the metallurgical industries.

The imports of coke during the calendar year 1913 were 723,906 tons, and the exports 68,235 tons. Adding the production, 1,530,499

tons, to the net imports, a consumption is shown of 2,186,170 tons. Similarly estimated, the consumption in 1912 was 1,981,659 tons, and in 1911, 1,677,188 tons.

### Coke Production, 1913.

Province.	Coal charged to ovens.	Output of coke.	STOCK ON HAND.		Coke sold or used.	Per cent of total prod.	Value of sales, etc.
			Jan. 1.	Dec. 31.			
	Tons.	Tons.	Tons.	Tons.	Tons.	%	\$
Nova Scotia.....	1,109,629	720,526	4,898	3,386	722,038	47.17	2,352,153
Ontario.....	(a)549,001	411,643	19,397	11,753	419,287	27.40	1,991,613
Alberta.....	104,012	65,104	582	518	67,403	4.41	269,612
British Columbia.....	485,271	319,860	6,814	4,903	321,771	21.02	1,306,218
Total.....	2,247,913	1,517,133	31,691	20,560	1,530,499	100.00	5,919,596

(a) All imported coal.

### Coke Production, 1912.

Province.	Coal charged to ovens.	Output of coke.	STOCK ON HAND.		Coke sold or used.	Per cent.	Value. of sales, etc.
			Jan. 1.	Dec. 31.			
	Tons.	Tons.	Tons.	Tons.	Tons.		\$
Nova Scotia.....	(a) 935,784	624,762	7,097	5,941	625,918	44.4	1,840,129
Ontario.....	(b) 502,671	376,314	22,937	19,397	379,854	26.9	1,709,343
Alberta.....	170,818	108,900	628	3,844	105,684	7.5	424,027
British Columbia.....	444,534	296,052	8,411	4,690	299,773	21.2	1,190,832
Total.....	2,053,807	1,406,028	39,073	33,872	1,411,229	100.0	5,164,331

(a) Including 22,627 tons imported coal.

(b) All imported coal.

### Distribution of Coke Production, 1913.

	Nova Scotia.	Ontario.	Alberta.	British Columbia.	Total.
Sold in Canada.....	12,494	4,531	66,253	265,070	348,348
Sold for export.....	0	0	980	56,701	57,681
Total sales.....	12,494	4,531	67,233	321,771	406,029
Used by maker in blast furnace or otherwise.....	709,544	414,756	170	0	1,124,470
Total sold or used.....	722,038	419,287	67,403	321,771	1,530,499
Number of ovens in operation December 31.....	572	110	134	904	1,720
Number of ovens idle December 31.....	376	100	233	666	1,375
Number of ovens building December 31.....	0	0	0	0	0

COKE.—TABLE 1.

## Annual Production.

Calendar Year.	Tons.	Value.	Value per ton.	Calendar Year.	Tons.	Value.	Value per ton.
		\$	\$ cts.			\$	\$ cts.
1886	35,396	101,940	2 88	1900	157,134	640,140	4 13
1887	40,428	135,951	3 36	1901	365,531	1,228,225	3 36
1888	45,373	134,181	2 96	1902	502,043	1,519,185	3 03
1889	54,539	155,013	2 84	1903	561,318	1,734,404	3 09
1890	56,450	166,298	2 95	1904	554,083	2,032,048	3 66
1891	57,084	175,592	3 08	1905	700,488	2,436,211	3 48
1892	56,135	160,249	2 85	1906	782,055	2,863,503	3 66
1893	61,078	161,790	2 65	1907	842,003	3,583,468	4 26
1894	58,044	148,551	2 56	1908	858,257	3,449,361	4 02
1895	53,356	143,047	2 68	1909	862,011	3,484,393	4 04
1896	49,619	110,257	2 22	1910	902,715	3,462,872	3 84
1897	60,686	176,457	2 91	1911	935,651	3,630,410	3 88
1898	87,600	286,000	3 26	1912	1,411,229	5,164,331	3 66
1899	100,820	350,022	3 47	1913	1,530,499	5,919,596	3 87

COKE.—TABLE 2.

## Annual Production of Coke by Provinces.

Calendar Year.	NOVA SCOTIA.		ONTARIO.		BRITISH COLUMBIA.		ALBERTA.	
	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.
		\$		\$		\$		\$
1897	41,532	90,950			19,154	85,507		
1898	48,409	111,000			39,200	175,000		
1899	62,459	178,767			38,361	171,255		
1900	61,767	223,395			95,367	425,745		
1901	222,694	590,561			142,837	637,665		
1902	363,330	899,930			138,713	619,255		
1903	371,745	888,004			189,573	846,310		
1904	275,927	808,022			257,172	1,148,090	20,984	78,936
1905	386,366	1,054,712			269,256	1,202,035	44,866	179,464
1906	476,364	1,540,976			236,205	1,054,485	69,486	268,042
1907	524,110	1,688,070			241,572	1,049,432	76,321	297,595
1908	505,929	1,658,151			276,683	1,482,191	75,645	309,019
1909	492,992	1,608,092			281,786	1,509,567	87,233	366,734
1910	508,058	1,655,775	24,685	148,110	248,394	1,172,675	121,578	486,312
1911	557,554	1,814,977	250,534	1,318,303	82,327	350,879	36,216	146,251
1912	625,918	1,840,129	379,854	1,709,343	299,773	1,190,832	105,684	424,027
1913	722,038	2,352,153	419,287	1,991,613	321,771	1,306,218	67,403	269,612

In Nova Scotia, coke was made at Sydney, Sydney Mines, and Westville, during 1913, but the ovens at Stellarton and Londonderry were idle. The output is used almost entirely in the manufacture of iron and steel. The Ontario production was all from the ovens of the Algoma

Steel Corporation, Ltd., at Sault Ste. Marie, the blast furnaces and coking ovens of the Atikokan Iron Company at Port Arthur being idle throughout the year. In Alberta, coke oven plants were operated at Coleman, only those at Lille and Passburg remaining idle throughout the year. In British Columbia, the ovens at Fernie, Michel, and Hosmer were active while those at Carbonado and Comox were out of commission. The coke output of these western Provinces is used chiefly by the copper and lead smelters, finding a market in the United States as well as in Canada.

The total number of ovens in active operation on December 31, 1913, was 1,720, while 1,375 were reported idle on the same date. In Nova Scotia the Dominion Iron and Steel Company has 620 finished ovens, all of the Otto Hoffman by-product type. The by-products from these ovens include tar, sulphate of ammonia, and gas. The tar is sold to the Dominion Tar and Chemical Company whose works are contiguous to the coke oven plant, and this product is treated for the manufacture of refined tar, pitch of various grades, benzole, creosote, carbolic acid, and many other tar products. Sulphate of ammonia is produced in crystallized form for the trade, and the gas is used in the Company's furnace operations.

The Nova Scotia Steel and Coal Company has 30 ovens of the Bauer type and 120 Bernard ovens; the latter are situated near the blast furnaces, and the surplus gas is used for the production of steam for the electric power plant. The surplus gas from the Bauer ovens is used in generating steam for general colliery use.

The other ovens in Nova Scotia number 178, and are all of the Beehive type.

In Ontario, the Atikokan Iron Co., Ltd., has 100 Beehive ovens at Port Arthur, and the Algoma Steel Corporation, Ltd., 110 Koppers by-product regenerative ovens at Sault Ste. Marie, tar, sulphate of ammonia and gas are recovered as by-products.

In Alberta the International Coal and Coke Co. has 216 ovens of the Beehive type at Coleman. The West Canadian Collieries, Ltd., at Lille, has 50 ovens of the Bernard or Belgian type, and the Leitch Collieries, Ltd., has 101 Mitchell rectangular ovens at Passburg. The ovens of the latter two companies were idle during 1913.

The Crownsnest Pass Coal Company has 454 Beehive ovens at Fernie, 486 at Michel, and 240 at Carbonado, the latter having been idle for some years past. The Canadian Pacific Railway, Ltd. (Hosmer Mines) has 240 Beehive ovens at Hosmer, and the Canadian Collieries (Dunsmuir), Ltd., 150 ovens at Comox on Vancouver island.

The exports of coke during the calendar year 1913 were 68,235 tons as against 57,744 tons exported in 1912 and 9,852 tons in 1911. These exports are all from British Columbia and Alberta.



The imports of coke during the calendar year 1913 were 723,906 tons valued at \$2,180,830, as against imports of 628,174 tons valued at \$1,702,856 in 1912, and 751,389 tons valued at \$1,843,248 in 1911.

COKE.—TABLE 3.

## Annual Exports of Coke.

Calendar Year.	Tons.	Value.	Calendar Year.	Tons.	Value.
		\$			\$
1897.....	2,987	6,078	1905.....	116,071	599,908
1898.....	3,774	8,394	1906.....	37,003	168,571
1899.....	5,557	18,726	1907.....	70,617	320,337
1900.....	41,529	131,278	1908.....	58,708	248,759
1901.....	57,505	176,996	1909.....	74,067	329,051
1902.....	62,568	180,920	1910.....	57,971	250,715
1903.....	32,608	135,957	1911.....	9,852	39,823
1904.....	102,463	315,031	1912.....	57,744	252,763
			1913.....	68,235	308,410

COKE.—TABLE 4.

## Annual Imports of Oven Coke.

Fiscal Year.	Tons.	Value.	Fiscal Year.	Tons.	Value.
		\$			\$
1880.....	3,837	19,353	1897.....	83,330	267,540
1881.....	5,492	26,123	1898.....	135,060	347,040
1882.....	8,157	36,670	1899.....	141,284	362,826
1883.....	8,943	38,588	1900.....	187,878	506,839
1884.....	11,207	44,518	1901.....	308,786	680,138
1885.....	11,564	41,391	1902.....	267,142	642,815
1886.....	11,858	39,756	1903.....	256,723	1,222,756
1887.....	15,110	56,222	1904.....	221,050	765,123
1888.....	25,487	102,334	1905.....	371,593	807,842
1889.....	29,557	91,902	1906.....	490,222	1,311,375
1890.....	36,564	133,344	1907*.....	400,536	1,132,680
1891.....	38,533	177,605	1908.....	619,269	2,166,036
1892.....	43,499	194,429	1909.....	496,292	1,136,624
1893.....	41,821	156,277	1910.....	702,053	1,695,603
1894.....	42,864	176,996	1911.....	763,114	1,887,493
1895.....	43,235	149,434	1912†.....	641,903	1,637,091
1896.....	61,612	203,826	1913.....	710,109	2,023,253

\*For nine months only. †Duty free.

## Coke Oven By-Products.

The production of by-products from coke ovens in 1913 at Sydney and Sault Ste. Marie included 8,371,600 gallons of tar and 10,608 tons

of sulphate of ammonia. In 1912 the production was 8,428,896 gallons of tar and 11,289 tons of sulphate of ammonia.

### Annual Production of Coke Oven By-Products.

Year.	Tar.	Sulphate of ammonia.	Year.	Tar.	Sulphate of ammonia.
	Gals.	Tons of 2,000 lbs.		Gals.	Tons of 2,000 lbs.
1901.....	2,662,612	1,014	1908.....	4,450,160	3,342
1902.....	4,094,135	2,393	1909.....	4,016,824	3,416
1903.....	3,281,249	3,207	1910.....	3,963,591	3,491
1904.....	1,649,197	1,773	1911.....	6,464,155	7,124
1905.....	3,407,784	2,500	1912.....	8,428,896	11,289
1906.....	3,725,723	2,364	1913.....	8,371,609	10,608
1907.....	4,424,615	1,738			



