CANADA

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THE

PRODUCTION OF COAL AND COKE

IN

CANADA

During the Calendar Year

1913

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

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

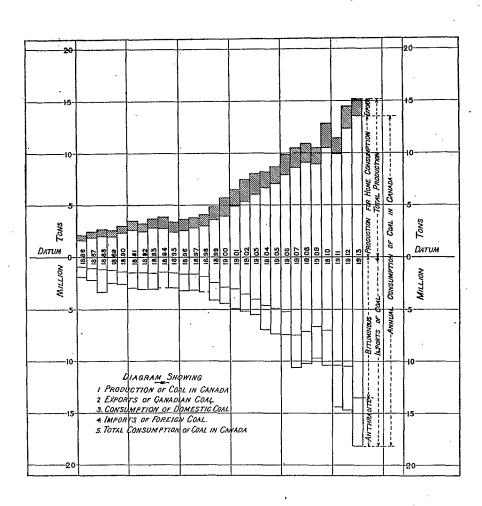
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Illustration.

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. standing 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 coalfields, are nearer to and thus find it more economical to utilize the coals of 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 Soctia 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.	Productio	N OF COAL.	Average value	Per cent
		wages paid.	Tons.	Value.	per ton.	or total. quantity.
Nova Scotia	13,697 6,162 7,509 350 160	\$ 9,328,613 5,587,145 6,811,372 205,970 95,000 37,041		\$ 17,812,663 8,482,562 10,418,941 358,192 166,637 96,945	3 12 2 59	
	27,917	22,065,141	15,012,178	37,334,940		100.00

COAL.—TABLE 2.

Production of Coal by Provinces, 1912.

	Average No. of men employed.	Wages paid.	Ркодистю	N OF COAL.	Average value.	Per cent of total
			Tons.	Value.	per ton.	quantity.
		.\$		\$	\$ cts.	
Nova Scotia	13,736 6,633 6,648, 374 144 46	8,893,697 6,125,239 5,474,192 213,690 50,000 28,025	7, /83, 888 3, 208, 997 3, 240, 577 225, 342 44, 780 9, 245	1/,374,750 10,028,116 8,113,525 368,135 89,560 44,958	2·233 3·125 2·503 1·633 2·000 4·863	53 · 63 22 · 12 22 · 33 1 · 55 0 · 31 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.							
FIOVINGS.	Years 1911	and 1912.	Years 1912 and 1913.					
	Tons.	Per cent.	Tons.	Per cent.				
Nova Scotia British Columbia Alberta Saskatchewan New Brunswick Yukon Territory	(i) 666,465 (i) 1,729,541 (i) 18,563 (d) 11,001	$11 \cdot 13$ $26 \cdot 21$ $114 \cdot 46$ $8 \cdot 98$ $19 \cdot 72$ $225 \cdot 00$	(i) 196,185 (d) 494,577 (i) 774,178 (d) 12,445 (i) 25,531 (i) 10,477	2·5 15·4 23·88 5·5 57·0 113·3				
Total for Canada	(i) 3,189,441	28 · 04	499,349	3.4				

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*. Alberta*. British Columbia. Yukon Territory.		 4 25	0·7 5·4 31·0	$1.5 \\ 6.2 \\ 21.0$	$1.2 \\ 10.8 \\ 22.4$	$1.11 \\ 12.77 \\ 21.98$	$1.44 \\ 15.14 \\ 22.50$	$1.37 \\ 15.42$	1·83 18·99 24·82	$egin{array}{c} 1 \cdot 40 \ 22 \cdot 42 \ 25 \cdot 80 \ \end{array}$	1.83 13.34 22.45	$1.55 \\ 22.33 \\ 22.12$	1·42 26·75 18·08

^{*} 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 $4\cdot071$ tons per capita, while the production averaged about $1\cdot936$ tons per capita of population.

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

,	Nova Scotia.	New Bruns- wick.	Sas- katch- ewan.	Alberta.	Yukon.	British Columbia	Total.
Sales in Canada Sales for export to	6,269,722	68,311	195,954	3,527,772	8,558	1,311,643	11,381,960
U.S	417,035	Í		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 Used by producers for colliery consump-			7,742	104,077	10,271	485,271	914,421
tion 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 "Dec. 31 Difference Losses due to break-	256, 221 352, 308 96, 087			$\begin{array}{r} 67,123 \\ 127,456 \\ + 60,333 \end{array}$	3,903 4,623 + 720	16,090	500,477
age 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.

Production* 7,783,888 44,780 225,342 3,240,577 9,245 3,208,997 14,512,829 Stock on hand Jan. 1 211,089								
Sales for export to U.S. 482,597 93,126 961,862 1,537,585 Sales for export to other countries 193,274 121,136 314,410 Total sales 6,799,219 42,780 215,796 2,865,500 8,053 2,493,012 12,424,360 Used by producers in making colte, 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 Total used 984,669 2,000 9,546 375,077 1,192 715,985 2,088,469 Production* 7,783,888 44,780 225,342 3,240,577 9,245 3,208,997 14,512,829 Stock on hand Jan. 1 211,089 29,307 74,346 314,742 Losses due to breakage or other causes. 85,416 6,892 63,908 11,075 167,291			Bruns-	katch-	Alberta.	Yukon.	Col-	Total.
U.S		6,123,348	42,780	215,796	2,772,374	8,053	1,410,014	10,572,365
other countries 193,274 121,136 314,410 Total sales 6,799,219 42,780 215,796 2,865,500 8,053 2,493,012 12,424,360 Used by producers in making colte, 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 Total used 984,669 2,000 9,546 375,077 1,192 715,985 2,088,469 Production* 7,783,888 44,780 225,342 3,240,577 9,245 3,208,997 14,512,829 Stock on hand Jan. 1 "Dec. 3I Difference	υ.s	482,597			93,126		961,862	1,537,585
Used by producers in making colte, steel, brick, etc		193,274					121,136	314,410
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 Total used. 984,669 2,000 9,546 375,077 1,192 715,985 2,088,469 Production*. 7,783,888 44,780 225,342 3,240,577 9,245 3,208,997 14,512,829 Stock on hand Jan. 1 211,089 29,307 74,346 314,742 282,069 Difference. 51,060 54,500 282,069 32,673 Losses due to breakage or other causes. 85,416 6,892 63,908 11,075 167,291	Total sales	6,799,219	42,780	215,796	2,865,500	8,053	2,493,012	12,424,360
men. 731,315 2,000 7,498 204,259 1,192 271,320 1,217,584 Total used. 984,669 2,000 9,546 375,077 1,192 715,985 2,088,469 Production* 7,783,888 44,780 225,342 3,240,577 9,245 3,208,997 14,512,829 Stock on hand Jan. 1 211,089 29,307 74,346 314,742 282,069 Difference 51,060 54,500 282,069 282,069 282,069 Losses due to breakage or other causes. 85,416 6,892 63,908 11,075 167,291	making coke, steel, brick, etc Used by producers for colliery con-	253,354		2,048	170,818		444,665	870,885
Production* 7,783,888 44,780 225,342 3,240,577 9,245 3,208,997 14,512,829 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. 85,416 6,892 63,908 11,075 167,291		731,315	2,000	7,498	204,259	1,192	271,320	1,217,584
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. 85,416 6,892 63,908 11,075 167,291	Total used	984,669	2,000	9,546	375,077	1,192	715,985	2,088,469
Difference	Production*	7,783,888	44,780	225,342	3,240,577	9,245	3,208,997	14,512,829
Total output 7,834,724 44,780 232,234 3,326,238 9,245 3,200,226 14,647,447	" Dec. 31 Difference Losses due to break-	176,509 - 34,580			+ 21,753		54,500 - 19,846	$\begin{bmatrix} -282,069\\ 32,673 \end{bmatrix}$
	Total output	7,834,724	44,780	232,234	3,326,238	9,245	3,200,226	14,647,447

^{*}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 1,218,656 297,291	7,468,880 1,173,772 171,388	8,956,450 1,847,943 291,273	8,559,952 1,068,572 280,235
Total sales		8,814,040 752,976	11,095,666 759,703	9,908,759 452,354
workmen	946,487	934,459	1,053,783	962,275
Stock on hand Jan. 1 Dec. 31 Difference Loss due to washing, breakage, or other causes	十 40,892	$ \begin{vmatrix} 202,432\\ 219,569\\ +17,137\\ 154,162 \end{vmatrix} $	$\begin{array}{c} 200,019 \\ 263,666 \\ + 63,647 \\ 243,716 \end{array}$	$\begin{array}{r} 265,046\\ 307,755\\ + 42,709\\ 182,567\end{array}$
Total output	11,090,813	10,672,774	13,216,515	11,548,664

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 1,063,742 1,039,974 994,762	\$ 1,763,423 1,747,016 1,729,546	\$ 1 66 1 68 1 74	(d) 23,768 (d) 45,212	(d) 2·2 (d) 4·3
1877 1878 1879 1880 1881 1882	1,036,670 1,089,744 1,126,497 1,482,714 1,537,106 1,848,148 1,818,684	1,794,415 1,941,285 2,050,639 2,657,194 2,688,621 3,248,446 3,109,635	1 73 1 78 1 82 1 79 1 75 1 76	(i) 41,908 (i) 53,074 (i) 36,753 (i) 356,217 (i) 54,392 (i) 311,042 (d) 29,464	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
1884 1885 1886 1887 1888 1889 1890	1,984,959 1,920,977 2,116,653 2,429,330 2,602,552 2,658,303 3,084,682	3,593,831 3,417,807 3,739,840 4,388,206 4,674,140 4,894,287 5,676,247	1 81 1 78 1 77 1 81 1 80 1 84 1 84	(i) 166,275 (d) 63,982 (i) 195,676 (i) 312,677 (i) 173,222 (i) 55,751 (i) 426,379	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
1891 1892 1893 1894 1895 1896 1897	3,577,749 3,287,745 3,783,499 3,847,070 3,478,344 3,745,716 3,786,107	7,019,425 6,363,757 7,359,080 7,429,468 6,739,153 7,226,462 7,303,597	1 96 1 94 1 95 1 93 1 94 1 93	(i) 493,067 (d) 290,004 (i) 495,754 (i) 63,571 (d) 368,726 (i) 267,372 (i) 40,391	(i) 16.0 (d) 8.1 (i) 15.1 (i) 1.7 (d) 9.6 (i) 7.7 (i) 1.1 (i) 10.2
1898. 1899. 1900. 1901. 1902. 1903. 1904.	4,173,108 4,925,051 5,777,319 6,486,325 7,460,681 7,960,364 8,254,595	8,224,288 10,283,497 13,742,178 12,699,243 15,210,877 15,942,833 16,592,231	1 97 2 09 2 38 1 96 2 04 2 00 2 01	(i) 387,001 (i) 751,943 (i) 852,268 (i) 709,006 (i) 780,356 (i) 493,683 (i) 294,231	(i) 18·0 (i) 17·3 (i) 12·3 (i) 15·1 (i) 6·6 (i) 3·7
1905. 1906. 1907. 1908. 1909. 1910.	8,667,948 9,762,601 10,511,426 10,886,311 10,501,475 12,909,152 11,323,388	17,520,263 19,732,019 24,381,842 25,194,573 24,781,236 30,909,779 26,467,646	2 02 2 02 2 32 2 31 2 36 2 39 2 34	(i) 413,353 (i) 1,094,653 (i) 748,825 (i) 374,885 (d) 384,836 (i) 2,407,677 (d)1,585,764	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
1912 1913	14,512,829 15,012,178	36,019,044 37,334,940	2 48 2 49	(i) 3,189,441 (i) 499,349	(i) 28·04 (i) 3·44

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.		
Exported to	Tons.	Value.	Tons.	Per cent.	Value.	Tons.	Per cent.	Value.	
		\$			\$,	\$	
Great Britain United States Newfoundland. Other countries	14,185 1,035,889 223,553 227,012	2,809,204	59,302 1,603,145 167,519 297,167	$75 \cdot 4$	202,151 4,042,803 482,194 1,094,445	12,098 1,250,769 220,147 79,006	0.8 80.1 14.1 5.0	39,103 2,978,067 653,346 290,835	
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.
1873 1874 1875 1876 1877 1878 1879 1880 1880 1881 1882 1883 1883	Tons. 420, 683 310, 988 250, 348 248, 638 301, 317 327, 950 306, 648 432, 188 395, 382 412, 682 486, 811 474, 405	Tons. 5,403 12,859 14,026 4,995 4,829 5,468 8,468 14,217 14,245 37,576 44,388 62,665	1893 1894 1895 1896 1897 1898 1899 1900 1901 1902 1903 1904	Tons. 960, 312 1,103,694 1,011,235 1,106,661 1,966,130 1,150,029 1,293,169 1,787,777 1,573,661 2,090,268 1,954,629 1,557,412	Tons. 102,827 89,786 96,836 116,774 101,848 99,189 101,004 62,776 53,894 23,453 27,138
1885 1886 1887 1888 1888 1889 1890 1890	427, 937 520, 703 580, 965 588, 627 665, 315 724, 486 971, 259 823, 733	71,003 78,443 89,098 84,316 89,294 82,534 77,827 93,988	1905 1906 1907 1908 1908 1909 1910 1911 1911 1912	1,635,287 1,835,041 1,894,074 1,729,833 1,588,099 2,377,049 1,500,639 2,127,133 1,562,020	86,792 44,758 101,778 102,071 161,098 159,859 133,943 46,706 69,566

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 \$22,034,839, 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 6.

Annual Imports of Coal into Canada.

Fiscal Year.	Brumino	US COAL.	Anthrac Anthraci	ND	Biruminous	COAL DUST.
risom roar.	Tons.	Value.	Tons.	Value.	Tons.	Value.
		\$		\$		8
880 881 882 883 884 885 886 887 888 889 890 391 992 993 994 995 990 001 001 002 003 004 005 006 Calendar Year		1,220,761 1,741,568 1,992,081 2,996,198 3,613,470 3,197,539 2,551,554 3,126,225 3,451,661 3,255,171 3,528,959 4,060,896 4,099,221 3,967,764 3,315,094 3,321,387 3,299,025 3,254,217 3,179,595 3,691,946 4,310,964 4,956,025 5,712,658 5,772,658 5,772,658 5,772,658 8,002,896 8,360,348 round and the mine.	516, 729 572, 092 638, 273 754, 891 808, 000 910, 324 995, 425 1, 100, 165 †2, 138, 627 1, 201, 705 1, 201, 705 1, 399, 067 1, 479, 106 1, 530, 550 1, 456, 701 1, 745, 460 1, 654, 401 1, 933, 283 1, 456, 71 1, 456, 71 1, 456, 71 2, 200, 863 3, 141, 873 3, 160, 110 3, 017, 844 3, 266, 235	1,509,960 2,325,937 2,666,356 3,344,936 3,831,283 3,909,844 4,028,050 4,423,062 5,291,875 5,199,481 4,595,727 5,640,346 6,355,224,452 5,640,346 6,355,350,627 5,667,036 6,357,685 6,490,702 7,923,950 7,021,939 7,021,939 7,021,939 7,021,939 7,021,939 7,021,030 1,0304,308	337 471 8, 154 12, 782 20, 185 36, 230 31, 401 22, 808 39, 980 53, 104 60, 127 82, 091 109, 585 117, 573 181, 318 210, 386 225, 562 229, 445 276, 547 330, 174 414, 432 489, 548 550, 383 608, 041 650, 261 747, 251 Bituminous as will pass 1, 139, 256 1, 111, 151 1, 230, 017	8,8'66 90 10,0 14,6 20,4 36,9 33,1' 47,1 29,8 36,1 39,8 44,5 52,2 53,7 44,5 52,2 53,7 44,5 275,5 264,5 420,3 544,1 343,4 489,1

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

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.

⁽a). Duty 14 cents per ton.

(b) Duty 14 cents per ton.

The 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 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.

	19	12.	1913.			
	Tons.	Tons.	Tons.	Tons.		
Production, Table 3	2,127,133 14,595,810 46,706	14,549,104	1,562,020	18,132,387		

COAL.—TABLE 7.

Annual Consumption of Coal in Canada.

Calendar Year.	Can- adian.	Im- ported.	Total.	Per- centage Can- adian.	Per- centage im- ported.	Con- sumption per capita.
1886	1,992,988 2,360,196 2,606,490 2,464,912 2,823,187 2,743,376 2,467,109 2,639,055 2,799,977 3,023,079 3,631,882 3,989,542	2, 192, 260 3, 314, 353 2, 490, 931 2, 581, 187 2, 980, 222 3, 110, 462 2, 917, 818 2, 933, 752 3, 206, 456 3, 124, 485 3, 274, 981 4, 092, 361 4, 361, 563	Tons. 3,480,111 4,040,625 5,328,278 4,483,919 4,941,383 5,586,712 5,546,441 5,400,861 5,845,511 5,924,462 6,298,060 7,724,243 8,351,105	% 45.9 45.7 37.8 44.4 47.8 46.7 44.6 48.5 45.7 45.7 47.3 48.0 47.8	% 54.1 54.3 62.2 55.6 52.2 53.3 55.6 52.4 51.5 54.3 54.9 52.7 52.0 53.0	Tons. 0.758 0.871 1.137 0.946 1.031 1.153 1.138 1.198 1.130 1.066 1.140 1.143 1.200 1.454
1901 1902 1903 1904 1905 1906 1907 1908 1908 1910 1910	4,912,664 5,376,413 6,005,735 6,697,183 7,927,560 8,617,352 9,156,478 8,913,376 10,532,103	4,810,213' 5,165,938 5,491,870 6,909,651 7,343,880' 7,398,906 10,549,503 10,195,424 9,711,826 10,438,123 14,424,949 14,549,104'	9,722,877 10,542,351 11,507,605 13,606,834 14,376,541; 15,326,466 19,166,855 19,351,902 18,625,202 22,247,698 26,934,800	50.5 51.0 52.2 49.2 48.9 51.7 45.0 47.3 47.9 50.2 40.5 46.0 42.6	49.5 49.0 47.8 50.8 51.1 48.3 55.0 52.7 52.1 49.8 59.5 54.0 57.4	1.810 1.927 2.055 2.346 2.362 2.425 2.947 2.820 2.682 2.960 3.384 3.596 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.

Of 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 cokemaking 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 selec		Used.		Production. ²	Stoo	CKS.	Losses.3	Output.
	Total sales.	For coke.1	Colliery consumpt'n.	Workmen.	Trougetion.	Jan. 1.	Dec. 31.	Hoses.*	
Inverness Ry. and Coal Co Sydney Coal Co., Ltd Dominion Coal Co., Ltd Nova Scotia Steel and Coal Co., Ltd The Colonial Coal Co., Ltd Cape Breton Coal, Iron and Ry. Co Acadia Coal Co., Ltd Intercolonial Coal Mining Co Maritime Coal, Ry., and Power Co Dominion Coal Co., Ltd. (Springhill). Minudie Coal Co., Ltd. Atlantic Grindstone, Coal and Ry. Co.	5,950 4,773,766 572,835 71,943 3,325 521,717 155,479 145,880 347,039 58,099	7,421 282,176 17,463	21,631 50 333,990 30,733 4,863 3,680 69,461 33,385 22,881 67,451 8,983 110	7,475 50 59,790 19,277 1,207 401 13,677 7,034 3,115 11,873 1,865 85	327, 613 6, 050 5, 167, 546 905, 021 78, 013 7, 406 604, 855 213, 361 171, 876 426, 363 68, 947 3, 022	478 10 239, 579 8, 960 1, 238 3, 040 784 2, 132	1,942 30 326,919 15,120 486 2,029 2,000 785 2,975	31 52,961 1,481 4,471	329, 108 6, 070 5, 307, 847 912, 662 77, 261 9, 435 603, 815 213, 362 171, 876 427, 206 73, 418 3, 044
	6,949,946	307,060	597,218	125,849	7,980,073	256,221	352,308	58,944	8, 135, 104

Includes also coal used by producers for steel making and other purposes, and for making briquettes.
 Production is obtained by adding sales and coal used.
 Complete records of losses are not furnished by all producers.

	Total Sales.		Used.		Production.2	Ѕто	CKS.	Losses. ³	Output.
	Total Sales.	For Coke. ¹	Colliery consumpt'n.	Workmen.	I toduction.	Jan. 1.	Dec. 31.	Doscs.	Output.
Inverness Ry. and Coal Co Sydney Coal Co., Ltd Dominion Coal Co., Ltd Nova Scotia Steel and Coal Co., Ltd The Colonial Coal Co., Ltd Acadia Coal Co., Ltd Intercolonial Coal Mining Co Cumberland Ry. and Coal Co Maritime Coal, Ry., and Power Co Minudie Coal Co., Ltd Atlantic Grindstone, Coal and Ry. Co. Riverside Mine (Eastern Coal Co., Ltd.)	31,242 413,790 206,750 389,194 149,066 55,813 168	3,967 226,294 1,741 21,350	0 2 200	6,974 123 51,556 18,404 634 12,782 7,648 13,046 4,384 1,344	313,431 5,872 4,993,103 934,675 35,272 511,485 274,062 474,486 178,976 61,462 168 896		478 160,777 8,960 397 3,041 784 2,072		312,836 5,872 5,954,861 942,511 36,050 487,933 277,746 469,388 178,976 67,487 168 896
Lta.)	6,799,219	253,354	614,420	116,895	7,783,888	211,089	176,509	85,416	7,834,724

¹ Includes also coal used by producers for steel making and other purposes, and for making briquettes.
² Production is obtained by adding sales and coal used.
³ Complete records of losses are not furnished by all producers.

Output,

Colliery

Sold or

Pro-

duction, *

Price per

Value

Production,

Colliery

consump-

Sold or

Output,

65208-4

4	Calendar Year.	tons, 2,240 lbs.	used, tons, 2,240 lbs.	consump- tion, tons, 2,240 lbs.	tons, 2,240 lbs.	tons, 2,000 lbs.	used, tons, 2,000 lbs.	consump- tion, tons, 2,000 lbs.	duction, * tons, 2,000 lbs.	ton, 2,240 lbs.	of production.
	1050	000.000	W 0- 04/	440.04					•	\$ c.	\$
	1872 1873	880,950 $1,051,467$	785,914 881,106	110,341 108,398	896,255 989,504	986,664	880, 224	123,582	1,003,806	1 75	1,568,446
	1074	070 700	749,127	119,582	868,709	1,177,643 977,446	986,839 839,022	121,406 133,932	1,108,245 $972,954$	1 75	1,731,632
	1875	781, 165	706,795	124,110	830,905	874,905	791,610	139,003	930,613	1 75 1 75	1,520,240 1,454,084
	1876	709,646	634, 207	113,788	747,995	794,804	710,312	127,443	837, 755	1 75	1,308,991
	1877	757,496	687,065	98,841	785,906	848,396	769,513	110,702	880, 215	1 75	1,375,339
	1874 1876 1876 1877 1878 1879 1880 1881 1881	770,603	693,511	88,627	782,138	863,075	776,732	99, 262	875,994	1 75	1,368,741
	1879	788,271	688,624	84,787	773,411	882,863	771,259	94,961	866, 220	1 75	1,353,469
	1880	1,032,710	954, 659	96,831	1,051,490	1, 156, 635	1,069,218	108,451	1,177,669	1 75	1,840,108
	1881	1,124,270 1,365,811	1,035,014	107,888	1,142,902	1,259,183	1,159,216	120,834	1,280,050	1 75	2,000,079
	1002	1,422,553	1,250,179 1,297,523	111,381 111,949	1,361,560 1,409,472	1,529,708 1,503,259	1,400,200	124,747	1,524,947	1 75	2,382,730
	1883 1884	1,389,295	1,261,650	116, 769	1,378,419	1,556,011	1,453,226 1,413,048	125,383 130,781	1,578,609 1,543,829	1 75 1 75	2,466,576 2,412,233
	1885 1886 1887	1,352,205	1,254,510	127, 624	1,382,134	1,514,470	1,405,051	142,939	1,547,990	1 75	2,412,255
	1886	1,502,611	1,373,666	142,421	1,516,087	1,682,924	1,538,506	159, 512	1,698,018	1 75	2,653,152
	1887	1,670,830	1,519,684	139,777	1,659,461	1.871.330	1,702,046	156,550	1,858,596	1.75	2,904,057
	1888 1889	1,776,128	1,576,692	157,443	1,734,135	1,989,265	1,765,895	176,336	1,942,231	1 75	3,034,735
	1889	1,756,279	1,555,107	158,131	1,713,238	1,967,032	1,741,720	177, 107	1,918,827	1 75	2,998,167
	1890	1,984,001	1,786,111	161,240	1,947,351	2,222,081	2,000,444	180,589	2,181,035	1 75	3,407,864
	1891	2,044,784	1,849,945	174,983	2,024,928	2,290,158	2,071,938	195,981	2,267,919	1 75	3,543,624
	1092	1,942,780 2,223,042	1,752,934 1,977,543	175, 092 205, 425	1,928,026 2,182,968	2,175,913	1,963,286	196,103	2,159,389	1 75	3,374,046
	1894	2,250,631	2,060,920	196,206	2,162,900	2,489,807 2,520,707	2,214,848 2,308,231	$230,076 \\ 219,751$	2,444,924 2,527,982	1 75 1 75	3,820,194 3,949,970
	1892 1893 1894 1895 1896	1,999,756	1,793,098	193,639	1,986,737	2,239,727	2,008,270	216,875	2,225,145	1 75	3,476,790
	1896	2,292,675	2,046,828	192,975	2,239,808	2,537,706	2,202,447	216,132	2,508,579	1 75	3,919,355
			2,044,672	181,716	2,226,388	2,020,835	2,290,032	203,522	2,493,554	1 75	3,806,170
	1898 1899	2,262,656	2,121,126	187,428	1,288,554	2,584,175	2,375,661	187,519	2,563,180	1 75	4,004,970
	1899	2,865,443	2,633,989	177,460	2,811,449	3,209,296	2,950,067	138,775	2,148,822	2 00	5,622,808
	1900 1901 1902	3,298,791	2,998,737	236,563	3,235,300	3,694,646	5,358,585	264,051	3,623,536	2 50	8,088,250
	1901	3,821,033 4,725,480	3,411,127 $4,229,120$	301,434 379,198	3,712,561 4,608,318	4,279,557	3,820,462	337,606	4,158,068	1 75	6,496,982
	1903	5, 215, 562	4,565,720	481.903	5,047,623	5,292,538 5,841,429	4,736,614 5,113,607	424,702 539,731	5,161,316	2 00 2 00	9,216,656
	1904	5,131,985	4,551,740		4,996,644	5,747,823	5,097,949	498,292	5,653,338 5,596,241		10,095,246
		0,101,000	1,001,110	111,001	1,000,011	0,121,020	0,001,010	170,494	0,000,241	1 200	9,550,200

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. 1906. 1907. 1908. 1909. 1910. 1911. 1912. 1913.	5, 197,877 5,844,813 5,775,503 6,076,330 5,106,135 5,817,109 6,362,099 6,995,289 7,263,485	4,613,818 5,093,131 5,236,077 5,224,787 4,524,029 5,199,715 5,676,857 6,296,940 6,479,469	427,774 460,891 437,256 576,509 522,479 542,376 577,089 652,960 645,596	5,041,592 5,554,022 5,673,333 5,939,767 5,046,508 5,742,091 6,253,946 6,949,900 7,125,065	5,821,622 6,546,191 6,468,563 6,805,489 5,718,871 6,515,162 7,125,551 7,834,724 8,135,104	5,167,476, 5,704,307 5,864,406, 5,851,761 5,066,912 5,823,681 6,358,080 7,052,573 7,257,006	479,107 516,198 489,727 645,690 585,177 607,461 646,340 731,315 723,067	5,646,583 6,220,505 6,354,133 6,652,539 5,652,089 6,431,142 7,004,420 7,783,888 7,980,073	\$ c. 2 00 2 00 2 25 2 25 2 25 2 25 2 25 2 50 2 50	\$ 10,083,184 11,108,044 12,764,999 13,364,476 11,354,643 12,919,705 14,071,379 17,374,750 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.	Симве	RLAND.	Picr	ou.	Cape B	RETON.	OTHER O	COUNTIES.	Total.		
Carendar Tear.	Raised.	Sales.	Raised.	Sales.	Raised.	Sales.	Raised.	Sales.	Raised.	Sales.	
1906 1907 1908 1909 1910 1911 1912 1913	659,734 534,047 662,157 494,919 350,363 538,296 716,914 675,544	566, 308 445, 288 530, 648 403, 371 288, 706 436, 125 595, 138 553, 845	769, 496 840, 533 849, 802 743, 860 714, 846 833, 956 765, 678 817, 177	657,310 729,043 678,025 599,743 588,678 691,852 641,890 694,659	4,804,407 4,698,147 4,840,653 4,081,333 5,035,800 5,405,355 6,039,296 6,313,275	4,221,293 4,346,180 4,267,346 3,723,135 4,571,347 4,917,902 5,530,765 5,709,995	312,554 395,836 452,877 398,759 414,153 347,944 312,836 329,108	259,396 343,895 375,742 340,663 374,950 312,201 284,780 298,507	6,546,191 6,468,563 6,805,489 5,718,871 6,515,162 7,125,551 7,834,724 8,135,104	5,704,307 5,864,406 5,851,761 5,066,912 5,823,681 6,358,080 7,052,573 7,257,006	

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.	Outpút.	Sales.	Colliery consump- tion.	Supplied workmen.	Supplied .	Reported unsaleable.	On bank at close of year.
Dominion Coal Co., Ltd Nova Scotia Steel & Coal Co., Ltd. Cumberland Railway & Coal Co., Ltd Acadia Coal Co Maritime Coal, Railway & Power Co Inverness Railway & Coal Co Intercolonial Coal Co Sydney Coal Co Colonial Mining Co Minudie Coal Co Atlantic Grindstone & Coal Co	438,964 570,501 183,558 318,387 217,512 6,089 64,689 70,026	Tons. 4,823,057 847,343 361,862 494,475 149,145 280,585 175,315 5,845 59,002 56,737 2,789	Tons. 328,718 35,848 69,188 72,439 30,434 29,739 35,265 105 5,042 7,534	Tons. 57,782 22,015 12,333 13,773 3,980 7,610 7,282 155 1,188 1,616 78	1,904 1,328 857 9	Tons. 2,580 3,601	4,420 10,186 373 350 16
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.
Cape Breton County.			
Dominion Coal Company Nova Scotia Steel and Coal Co North Atlantic Collieries. McKay Mining Company. Sydney Coal Company. Colonial Mining Co	53,751 32,571	919,705 4,819 (a)	908,806 (a) 6,089
Cumberland County.			
Cumberland Railway and Coal Co	214,871 183,416		438,964 183,558
Minudie Coal Co	61,019 1,419 374		70,926 3,040
Pictou County.	,		
Acadia Coal Co	522, 297 293, 000	492, 213 272, 616	570,501 217,512
Inverness County.			
Inverness Coal and Railway Co	$326,577 \ 46,135$	324,469	318,387

⁽a) See Colonial Mining Co.

COAL.—TABLE 11.

Nova Scotia: Distribution of Coal Sold.

				FISCAL	YEARS ENDIN	g Septei	ABER 30.		-		
Markets.	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.	
Nova Scotia— Transported by land	1,642,716 339,462	31·77 6·57	1,681,052 342,787	30·65 6·25	2,007,192 354,514	32·25 5·70	2,197,213 373,594	31·76 5·40	2,530,566 380,363	34·88 5·24	:20
Total Nova Scotia. New Brunswick. Prince Edward Island. Quebec Province. Newfoundland. United States. St. Pierre. Bunker coal. Other countries.	1,689,876 174,998 359,224 11,463	38·34 11·76 1·71 32·69 3·39 6·95 0·22 4·92 0·02	2,023,839 594,288 89,031 2,001,382 19,224 325,548 8,405 243,807	36·90 10·84 1·62 36·49 3·62 5·93 0·15 4·45	2,361,706 606,582 90,314 2,315,971 206,299 372,177 10,107 229,243 (a) 30,841	37.95 9.74 1.45 37.22 3.32 5.98 0.16 3.68 0.50	2,570,807 732,411 103,378 2,418,086 224,719 462,035 10,535 265,142 (b) 131,816	37·16 10·59 1·49 34·95 3·25 6·68 0·15 3·83 1·90	2,910,929 724,239 107,612 2,456,416 235,810 524,262 7,449 262,278 (c) 27,160	40·12 9·98 1·48 33·85 3·25 7·23 0·10 3·62 0·37	-
Total	5,169,599	100-00	5,484,524	100.00	(100.00	6,918,929	100-00	(6) 21,130		-
				-			(b) Tons. c	•	Pe e) Tons. cer	ıt.	
For time chartered boatsOther countries					28,610 2,231 30,841	0·46 0·04 0·50	102,844	0-42 1-48 	3,202 0	·33 ·04 — ·37	

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

															==		
	1	Under	GROU	IND.		Sur	RFACE	•	C	ONST	RUCI	ion.	To:	TALS.	Hor	SES.	Days.
Company.	Skilled labour.	Labourers	Boys.	Days.	Skilled labour.	Labourers	Boys.	Days.	Skilled labour.	Labourers	Boys.	Days.	Persons.	Days.	Above.	Below.	Pit days.
Dominion Coal Co. Nova Scotia Steel and Coal Co. Cumberland Railway and Coal Co. Acadia Coal Co. Intercolonial Coal Co. Joggins Mines. Chignecto Mines. Inverness Railway and Coal Co. Sydney Coal Co. Minudie Coal Co. Colonial Coal Co. Atlantic Granite Co.	410 370 290 50 311 8 102	71 7	193 47 69 55 4 3 26	594,326 230,494	157 79 96 94 25 4 50 2 24 18	259 104 248 106 37 7 78 1 19	23 16 17 17 8 3 14	61,062 $21,765$ $1,810$	13 1 	8 1	i	6,278	6,452 2,730 1,012 1,219 760 435 74 24 15 195 138	722,046 295,445 398,559 202,658 136,107 7,790 182,763 3,599 55,655	5 14 25 15 5 1 7	90 45 53 29	289 294 285 275 298 139 294 269
Totals	6,418	3,992	657	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.

$\alpha \alpha$	λT	T	A	ъτ	ਜ	10

Calendar Year.	Tons.	Value.	Value per ton.	Calendar Year.	Tons.	Value.	Value per ton.
1887	10,040 5,730 5,673 7,110 5,422 6,768 6,200 6,469 9,500 7,500 6,000 6,160 10,528	11,050 11,733 13,850 11,030 9,375 9,837 10,264 14,250 11,250 9,000 9,240	1 95 2 03 1 39 1 59 1 59 1 50 1 50	1900	10,000 17,630 18,795 16,000 9,112 29,400 34,076 34,584 60,000 49,029 55,455 55,781 44,780 70,311	51,857 39,680 40,000 18,224 58,800 68,152 77,814	\$ ets. 1 50 2 94 2 11 2 50 2 00 2 00 2 00 2 25 2 25 2 25 2 20 2 00 2 0

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.
1887 1890 1891 1892 1893 1894 1895 1896 1897 1898 1899 1900	5,400 8,325 (b) 15,051 15,769 16,706 25,000 25,000 25,000	9,325 12,485 15,153 31,538 25,059 37,500 37,500 37,500 60,750	1 00 1 73 1 50 1 01 2 00 1 50 1 50 1 50 1 50 1 50	1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913	70, 400 116, 703 124, 885 107, 596 108, 398 151, 232 150, 556 192, 125 181, 156 206, 779 225, 342 212, 897	169,618 187,021 152,334 164,146 252,437 253,790	\$ cts. 1 52 1 45 1 50 1 42 1 51 1 67 1 69 1 54 1 68 1 63 1 68

(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, 1 04,077 tons were used for making coke.

The production by collieries in 1913 and 1912, and the annual production since 1887 are shown in the following tables.

In the case of anthracite coal which is mined at Bankhead, a large portion of the output is briquetted because of the friable nature of the The "production" or quantity marketed in 1913 was considerably larger than the mine output, owing to the manufacture of briquettes from the accumulated slack, or coal-dust

Production of Coal in Alberta in 1913, by Principal Collieries, in Short Tons.

Name of company.	Days in operation.	Total sales.	Total for colliery use.*	· Total production.
Alberta Coal Mining Co., Cardiff	227 264 216 252 285 227 297 290	55,000 106,521 72,895 117,995 36,432 242,662 (a) 162,899	3,000 10,041 3,742 29,278 10,101 11,516 (b) 35,276	58,000 116,56 76,611 147,273 46,533 254,178
Canadian Pacific Ry., Dept. Nat. Res., Bankhead "Lethbridge Capital Coal Co., Cardiff Cardiff Collieries, Ltd., Cardiff Chinook Coal Co., Canmore. City of Lethbridge Coal Mine, Lethbridge Coalbeek C. & Clay Prod. Co., Castor Davson Coal Co., Edmonton Diamond Coal Co., Edmonton Diamond Coal Co., Ltd., Diamond City Dobell Coal Co., Tofield Edmonton Standard Coal Co., Edmonton Great West Coal Co., Clover Bar Hillcrest Collieries, Ltd., Hillcrest. Humberstone Coan Co., Clover Bar International Coal and Coke Co., Coleman Jasper Park Collieries, Ltd., Pocahontas. Keith & Fulton Coal Co., Clover Bar Leitch Colliery, Ltd., Passburg MeGillivray Creek Coal and Coke Co., Coleman. Neweastle Coal Co., Clover Bar Pembina Coal Co., Clover Bar Pembina Coal Co., Clover Bar	255 202 256 282 237 235 255 267 119 290 287 288 240 297 272 249 271 271 278 300	364,600 34,374 120,000 .65,242 11,641 10,950 71,374 12,800 16,952 18,717 19,500 46,835 310,732 22,608 (c) 387,030 132,844 10,239 104,093 189,091 24,279 11,316 5,826	3,933 1,090 4,900 4,859 	368,583 36,464 124,900 70,101 11,641 11,115 74,344 13,460 18,555 20,312 20,900 51,956 322,469 23,733 413,560 135,029 10,264 108,587 106,249 25,479 11,466
Rock Springs Coal and Brick Co., Elcan. Tofield Coal Co., Tofield. Twin City Coal Co., Ltd., Edmonton. West Canadian Collieries, Bellevue. "Blairmore. Yellowhead Pass Coal and Coke Co., Ltd., via Bickerdike. 4 other companies, each producing over 10,000	190 223 280 270 278 297	16,500 15,120 60,985 426,756 159,870 27,772 70,653	2,300 1,150 5,618 7,301 4,202 2,327 17,995	18,800 16,270 66,603 434,057 164,072 30,099 88,648
All other companies, each producing under 10,000 tons			230,016 13,354 243,370	3,892,776 221,602 4,014,755

^{*}Includes consumption under boilers, etc., and coal used by workmen.

^{129,493} tons of briquettes.

²⁷⁵ 104,012 tons for coke manufacturing.

Production of Coal in Alberta in 1912, by Principal Collieries, in Short Tons.

				
Name of company.	Days in operation.	Total sales.	Total for colliery use.*	Total production.
Leitch Colliery, Ltd., Passburg Davenport Coal Co., Burmis Maple Leaf Coal Co., Bellevue. Hillcrest Coal and Coke Co., Hillcrest West Canadian Collieries, Bellevue "Blairmore "Lille Canadian Coal Consolidated Co., Frank International Coal and Coke Co., Coleman McGillivray Creek Coal and Coke Co., Lot., Via., Ed., Bankhead Canmore Coal Co., Ltd., Canmore "Yellowhead Pass Coal and Coke Co., Ltd., via., Via., Bickerdike Jasper Park Collieries, Ltd., Pocahontas Western Coal and Coke Co., Lethbridge City of Lethbridge Collieries, Lethbridge Lethbridge Collieries, Lethbridge Canada West Coal Co., Taber C.P.R. Dept. of Natural Resources, Lethbridge Diamond Coal Co., Ltd., Diamond City Battle River Collieries, Rosenroll Round Hill Collieries, Rosenroll Round Hill Collieries, Round Hill Tofield Coal Co., Tofield The Clover Bar Coal Co., Ltd., Clover Bar Edmonton Standard Coal Co., Edmonton Twin City Coal Co., Ltd., Edmonton Alberta Coal Mining Co., Cardiff Cardiff Collieries, Ltd., Cardiff 5 other companies, each producing over 10,000 tons	256 2399 313 300 301 262 249 265 220 236 225 160 302 282 282 286 269 216 280	(a) 66,418 37,986 48,849 173,478 317,725 80,858 (b) 38,177 123,381 (c) 402,288 119,342 (d) 124,589 142,231 97,527 11,207 111,231 11,969 10,467 58,419 69,436 311,259 35,447 11,500 17,608 17,468 20,686 24,750 32,800 52,683 92,161	6,624 495 1,923 10,806 6,508 4,936 6,919 17,999 23,050 4,056 (e) 36,000 9,931 1,742 2,075 1,270 2,431 9,895 8,684 4,293 2,551 850 747 2,100 1,280 2,500 2,500 2,500 2,500 2,985 13,294	73,042 38,481 50,772 184,284 324,233 85,794 45,096 141,380 425,338 160,589 152,162 99,269 13,282 112,501 14,400 10,467 68,314 78,120 316,552 38,398 12,350 18,355 19,558 22,436 26,750 34,080 55,183 95,146
All other companies, each producing under 10,000 tons		2,771,362 264,956	189,694 14,565	2,961,056 $279,521$
Total production, Alberta		3,036,318	204,259	3,240,577

^{*} Includes consumption under boilers, etc., and coal used by workmen.
(a) \(\) " 17,923 tons for coke manufacturing.
b) " 27,177 " " "
(c) " 125,718 " "
(d) " 90,000 tons of briquettes.
(e) " 1,300 "

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 1888 1890 1891 1891 1892 1893 1894 1896 1896 1897 1898	74,152 115,124 97,364 128,753 174,131 178,970 230,070 244,940 169,885 209,162 242,168 315,088 309,600	157,577 183,354 179,640 198,298 437,248 460,605 586,260 473,827 382,526 581,832 630,408 788,720 774,000	2 13 1 59 1 85 1 54 2 51 2 57 2 55 2 78 2 50 2 50 2 50	1900 1901 1902 1903 1904 1905 1906 1907 1908 1910 1911 1911 1912 1912	311, 450 340, 275 402, 819 495, 893 661, 732 931, 917 1, 246, 360 1, 591, 579 1, 985, 661 1, 994, 741 2, 894, 469 1, 511, 036 3, 240, 577 4, 014, 755	778, 625 850, 687 960, 601 1, 117, 541 1, 404, 524 1, 993, 915 2, 614, 762 3, 836, 286 4, 127, 311 4, 388, 109 7, 065, 736 3, 079, 264 8, 113, 525 10, 418, 941	2 50 2 50 2 38 2 28 2 12 2 14 2 10 2 41 2 43 2 44 2 63 2 50 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 Sold for consumption in other provinces Sold for export to the United States	1,441,327 98,397 134,673 1,674,397	364,350 58,778 423,128	251,402 533,820 3,528 788,750	630,553 101,333 731,886	2,687,632 792,328 138,201 3,618,161
Used in making briquettes. Used in making coke. Used under colliery boilers. Difference in stocks. Slack put on waste heap. Total output	104,012 71,693	$ \begin{array}{r} $	·	41,817	$ \begin{array}{r} 99,623\\ 104,012\\ 276,947\\ +27,622\\ 179,981\\ \hline 4,306,346 \end{array} $

Output of Bituminous Coal.

Tons of 2,000 lbs.	Crowsnest pass.	Calgary.	Lethbridge.	Edmonton.	Total.
Sold for consumption in Alberta Sold for consumption in other provinces Sold for export to the United States	1,441,327 98,397 134,673	249,199 2,925		.,	1,889,238 111,188 134,673
Total sales	1,674,397	252,124		208,578	2,135,099
Used in making coke Used under colliery boilers To stock Slack put on waste heap Total	104,012 71,693 842 175 1,849,435	13,394 34,562 1,500 301,580		$ \begin{array}{r} $	$+ \begin{array}{r} 104,012 \\ 91,778 \\ + 33,160 \\ 10,352 \\ \hline 2,374,401 \end{array}$

Output of Anthracite Coal.

Tons of 2,000 lbs.	CALGARY DISTRICT.		
Tons of 2,000 fos.	Coal.	Briquettes.	
Sold for consumption in Alberta	21,721 11,457	81,472 49,296	
Total sales. Used under colliery boilers. Used in making briquettes. Difference in stock.	33,178 33,869 99,623 + 2,050	130,768 + 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 Sold for consumption in other provinces Sold for export to the United States.		93,430 44,396 3,528	251,402 533,820	431,841 91,467	776,673 669,683 3,528
Total sales Used under collicry boilers Slack put on waste heap Difference in stocks Total output		137,826 3,646 15,209 + 480	788,750 112,528 73,149	523,308 35,126 81,271 + 339 640,044	1,449,884 151,300 169,629 - 7,588 1,763,225

Output of Coal in Alberta by Districts.

District.	Number of persons employed	Lignite.	Bituminous.	Anthracite.
Crowsnest pass. Pincher Creek Lethbridge Taber Bow Island Milk River Banff Medicine Hat Okotoks Aldersyde Carstairs Carbon Trochu Drumheller Three Hills Lacombe Wetaskiwin Edmonton St. Albort Tofield Cardiff Pembina Yellowhead pass. Jasper Park		744, 967 205, 953 12, 626 2, 474 38, 451 1, 285 10, 688 1, 240 5, 758 1, 453 52, 894 7, 200 38, 192 44, 861 255, 620 7, 448 43, 436 247, 201 41, 478	1,772,575 76,860 270,220 31,360	168,720
Total	8,068	1,763,225	2,374,401	168,720

Average Number of Persons Employed.

	Bituminous.		Anthracite.		Lignite.		Total.	
Character of labour.	Above.	Below.	Above.	Below.	Above.	Below.	Above.	Below.
Supervision and elerical assistance		98	10	8	149	135	251	241
Miners and helpers Mechanics or skilled labour Other employees	223	1,584 131 832	56 160	184 2 69	237 702	2,087 148 559	516 1,464	3,855 281 1,460
Total	917	2,645	226	263	1,088	2,929	2,231	5,837

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, 1,311,643 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 oceangoing 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.
Sold for consumption in Canada	Tons. 715,259 107,885	Tons. 276,528	Tons. 319,856 590,935	Tons 1,311,643 698,820
Sold for export to other countries				
Total sales	823,144 104,736	276,528 17,903	910,791 485,271 96,047	2,010,463 485,271 218,686
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.
Sold for consumption in Canada		Tons. 204,018 3,389	Tons. 258,365 617,951	Tons 1,410,014 961,862
Sold for export to other countries Total sales Used for making coke or brick Used for colliery consumption, etc		185,548 131 15,786	876,316 444,534 92,733	121,136 2,493,012 444,665 271,320
Production	1,571,683	223,731	1,413,583	3,208,997

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

	Sales.			Used in	Used under colliery	Produc-	Lost in	Stocks.		Output.	
Colliery.	In Canada.	To United States	To other countries.	Total.	making coke.	boilers, etc.	tion.	washing.	First of year.	Last of year.	Output.
1. Protection, No. 1 Northfield. 2. New East Wellington. 3. Ladysmith (Wellington). Cumberland (Comox) 4. Fiddick and Richardson. Suquash. 5. Michel. Coal Creek 6. Hosmer. 7. Corbin. 8. Diamond Vale. 9. Middlesboro. 10. Inland. 11. Princeton. 12. Other mines.	17,909 89,665 47,474 348,680 75,197 2,632 143,490 50,703 106,162 19,501 6,700 114,221 127,040 26,765	58,801		168,259 40,299 111,526 47,994 376,562 75,872 2,632 619,887 106,462 78,302 6,700 114,221 127,040 26,765 1,802	261,313 113,299 110,659	25,785 13,388 5,650 6,344 39,566 13,279 724 43,017 27,260 3,223 435 12,878 1,769 2,810 11	194,044 53,687 117,176 54,338 416,128 89,151 3,356 924,217 242,286 244,081 81,525 7,135 127,099 128,809 29,575 1,813	3,098 9,732 144,397 43,102 21,856	483 269	622 51 80	192,809 53,925 116,862 64,798 559,066 86,721 2,481 924,207 242,171 265,489 81,525 7,135 127,238 128,809 32,711 1,893
Total	1,311,643	698,820		2,010,463	485,463	218,686	2,714,420	225,539	58,209	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.)

Corbin Coal and Coke Co., Ltd.
 Diamond Vale Collieries, Ltd.
 Nicola Valley Coal and Coke Co., Ltd.
 Inland Coal and Coke Co., Ltd.
 Princeton Coal and Land Co., Ltd.
 (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.			Used in making	Used under colliery	Produc-	Lost	STOCKS.		Output.	
Connery.	In Canada.	To United States.	To other countries.	Total.	coke.	boilers.	tion.	washing.	First of year.	Last of year.	Оперия
1. Protection, No. 1. Northfield. Douglas. 2. New East Wellington. 3. Ladysmith (Wellington). Cumberland (Comox). 4. Fiddick and Richardson. Suquash. 5. Coal Creek. Michel. 6. Hosmer. 7. Corbin. 8. Diamond Vale. 9. Middlesboro. 10. Inland. 11. Princeton. 12. United Empire. Total.	18, 697 54 74, 783 176, 370 301, 302 121, 497 3, 389 61, 929 12, 603 103, 956 79, 876 3, 080 150, 283 30,000 20, 405 250	430,817 133,943 53,192	82, 192 21, 725 70 17, 149	446, 179 127, 260 124, 92, 625, 226, 928, 383, 049 129, 328, 3,389 492, 746, 146, 546, 103, 956, 133, 068, 3, 080, 150, 283, 30, 000, 23, 951, 500 2, 493, 012	248,058 115,316 81,291	44, 495 31, 721 712 5, 726 15, 588 45, 087 18, 704 767 39, 801 22, 368 26, 696 3, 868 10, 052 1, 299 4, 232 40 271, 320	98,351 242,516 428,136 148,032 4,156 780,605 284,230 211,943 136,936 3,244	3,372	124 20 1,889		486, 664 158, 623 98, 845 240, 977 404, 944 164, 750 5, 031 780, 596 284, 325 210, 832 136, 936 3, 244 160, 129 31, 399 31, 555 3, 200, 220

Western Fuel Co.
 Vancouver-Nanaimo Coal Mining Co.
 The Canadian Collieries (Dunsmuir), Ltd.
 Pacific Coast Collieries, Ltd.
 Crowsnest Pass Coal Co., Ltd.
 The Hosmer Mines Ltd. (Can. Pac. Railway, Dept. of Natural Resources).

Corbin Coal and Coke Co., Ltd.
 Diamond Vale Collieries, Ltd.
 Nicola Valley Coal and Coke Co., Ltd.
 Inland Coal and Coke Co., Ltd.
 Princeton Coal and Land Co., Ltd.
 United Empire Coal Co., Ltd.

COAL.—TABLE 15.

British Columbia: Annual Production.

Calendar	Output, tons.	Home con- sumption,	Sold for export,	Produc	tion*.	Pri per t	on,	Value.
Year.	2,240 lbs.	tons. 2,240 lbs.	tons. 2,240 lbs.	Tons. 2,240 lbs.	Tons. 2,000 lbs.	2,240	lbs.	
	,					\$	cts.	\$ _
1836–52 1852–59	10,000 25,398)	l	` {	11,200 28,446	,	4 00 4 00	40,000 101,592
1859‡	1.989			†	2,228		4 00	7,956
1860	14,247	ļ			15,957		4 00	56,988
1861 1862	13,774 18,118			ļ	15,427 20,292		4 00	55,096 72,472
1863	21,345			-	23,906		4 00	85.380
1864	28,632	From 1836 t	o 1873, inclusi	ive, the out-{	32,068		4 00	114,528
1865	32,819	put is	taken as proc	luction.	36,757		4 00	131,276
1866 1867	25, 115				$28,129 \\ 34,988$		4 00	100,460 $124,956$
1868	31,239 44,005	ł		,	49,286		4 00	176,020
1869	35,080	1		[]	40,098		4 00	143,208
1870 1871–2–3	29,843 148,459	}		1	33,424 166,274		4 00 4 00	119,372 593,836
1874	81,547	25,023	56.038	81,061	90,788	Ì	3 00	243,183
1875	110,145	31,252	66,392	97,644 140,185	109,361		3 00	292,932
1876	139,192	17,856	†122,329	140, 185	157,007		3 00 3 00	420,555 419,076
1877 1878	154,052 170,846	24,311 $26,166$	115,381 164,682	139,692 190,848	156,455 213,750		3 00	572.544
1879	241,301	40, 294 46, 513	192,096	232,390	260,277		3 00	697,170
1880	267,595	46,513	225,849 189,323	272,362	305,045 257,056		3 00 3 00	817,086 688,542
1881 1882	228,357 282,139	40,191 56,161	232,411	229,514 288,572	323,201		3 00 3 00	865,716
1883	213, 299	64.786	149.567	214,353	240,075		3 00	643,059
1884	394,070	87,388 95,227	306,478 237,797	393,866	441,130		3 00	1,181,598
1885 1886	365,596 326,636	95,227 85,987	237,797	333,024 335,192	372,987 375,415		3 00 3 00	999,072 1,005,576
1887	413,360		334,839		486,142		3 00	1,302,165
1888	489,301	115,953	365,714	481,667	539,467		3 00	1,445,001
1889 1890	579,830 678,140	124,574 177,075	443,675	568,249 685,345	636,439 767,586		3 00	1,704,747 2,056,035
1891	1,029,097	202,697	508,270 806,479	1,009,176	1,130,277		3 00	3,027,528
1892	826,335	196, 223	640,579	836,802	937,218		3 00	2,510,400
1893 1894	978,294 1,012,953	207,851	768,917 827,642	976,768 993,418	1,093,980 1,112,628		3 00 3 00	2,930,304 2,980,254
1895	939,654	165,776 188,349	756,334 634,238	944,683	1.058.045		3 00	2,834,049
1896	894,882	261,984	ų 634,238	896,222	1,003,769	İ	3 00	2,688,660
1897 1898	802,296 1,136,485				1,019,390 1,263,680		3 00 3 00	2,730,510 3,384,858
1899	1,306,324	526,058	751,711	1,277,769	1,431,101		3 00	3,833,307
1900	1,590,178	685,667	' 914,184	1.599.851	1,791,833		3 00	4,799,553
1901	1,691,557 1,641,626			1,713,829 1,614,680	1,919,488 1,808,441	1	3 00 3 00	5, 141, 48' 4, 844, 04
1902 1903	1,450,663]	3 00	4,490,84
1904	1,685,698	1,129,46	533,593	1.663.058	1,862,625		3 00	4,989,174
1905	1,736,696			1,737,010 1,916,305			$\frac{3}{3} \frac{00}{00}$	5,211,030 $5,748,918$
1906 1907	1,899,076 2,219,602		673, 114	2,111,516	2,364,898		3 50	7,390,30
1908	2,111,931	1,486,513	597,157	7 2,083,668	2,333,708	3	3 50	1, 7, 292, 838
1909	2,388,190	1,585,235	2 741,667	7 2,326,899	2,606,127		3 50 3 50	8,144,14' 10,408,58
1910 1911	3,152,207 2,304,794	1,798,873 1,657,425	1,175,007 612,696	$\begin{bmatrix} 2,973,880 \\ 2,270,118 \end{bmatrix}$	3,330,748 2,542,532	í	3 50	7,945,413
	2,857,345	1,898,213		2,865,176	[3,208,99]	7	3 50 3 50	10,028,110
1912 1913								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 1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1911 1912 1903	7,000 7,000 15,000 3,847 7,364 16,185 2,840	\$ 86,230 37,280 29,584 21,000 28,000 60,000 21,158 49,502 110,025 12,780 44,958 95,945	\$ ets. 14 70 7 59 16 00 3 00 4 00 4 00 5 50 6 72 6 85 4 50 4 86 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. larly estimated, the consumption in 1912 was 1,981,659 tons, and in 1911, 1,677,188 tons.

Coke Production, 1913.

Province.	Coal charged	Output	Stock or	HAND.	Coke sold or	Per cent	Value of sales,
1 Tovince.	to ovens.	coke.	Jan. 1.	Dec. 31.	used.	prod.	etc.
Nova Scotia Ontario Alberta British Columbia	104,012	Tons. 720,526 411,643 65,104 319,860	19,397 582 6,814	Tons. 3,386 11,753 518 4,903	419,287 67,403 321,771	27·40 4·41 21·02	\$ 2,352,153 1,991,613 269,612 1,306,218 5,919,596

(a) All imported coal.

Coke Production, 1912.

Province.	Coal charged to	Output of	Ѕтоск от	N HAND.	Coke sold or	Per cent.	Value.
Frovince.	ovens.	coke.	Jan. 1.	Dec. 31.	used.	Ter cont.	sales, etc.
Nova Scotia		376,314	22,937	Tons. 5,941 19,397		26.9	\$ 1,840,129 1,709,343
AlbertaBritish Columbia	170,818 444,534 2,053,807	108,900 296,052 1,406,028	8,411	$\frac{3,844}{4,690}$ $33,872$	105,684 299,773 1,411,229	21.2	424,027 1,190,832 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 CanadaSold for export	12,494	4,531	66,253	265,070	348,348
	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. Number of ovens idle December 31. Number of ovens building December 31	572	110	134	904	1,720
	376	100	233	666	1,375
	0	0	0	0	0

COKE.—TABLE 1.

Annual Production.

Calendar Year.	Tons.	Value.	Value per ton.	Calendar Year.	Tons.	Value.	Value per ton.
1886	56,135 61,078 58,044	175,592	\$ cts. 2 88 3 96 2 84 2 95 3 08 2 95 2 65 2 68	1900	157, 134 365, 531 502, 043 561, 318 554, 083 700, 488 782, 055 842, 003 858, 257 862, 011	1,228,225 1,519,185 1,734,404 2,032,048 2,436,211	3 66 3 48 3 66 4 26 4 02
1896 1897 1898 1899	49,619	110,257 176,457 286,000	2 22 2 91	1910 1911 1912 1913	902,715 935,651 1,411,229 1,530,499	3,462,872 3,630,410	3 84

COKE.—TABLE 2.

Annual Production of Coke by Provinces.

Calendar Year.	Nova Scotia.		Ontario.		British	Согимвіл.	Alberta.	
Calendar Tear.	Tons.	Value.	Tons.	Value.	Tons.	Value.	Tons.	Value.
		\$		\$		\$		\$
1897. 1898. 1899. 1900. 1901. 1902. 1903. 1904. 1905. 1906. 1907. 1908. 1909. 1910. 1911. 1912.	41,532 48,400 62,459 61,767 222,694 363,330 371,745; 275,927 386,366 476,364 476,364 476,364 524,110 505,929 492,992 508,058 557,554 625,918 722,038	111,000 178,767 223,395 590,560 899,930 888,094 1,054,712 1,540,976 1,658,070 1,658,151 1,608,092 1,655,775 1,814,977 1,840,129	24, 685 259, 554 379, 854	1,318,303	39,200 38,361 95,367 142,837 138,713 189,573 259,256 236,205 241,572 276,683 281,786 248,394 82,327 299,773	175,000 171,255 425,745 637,665	20,984 44,866 69,486 76,321 75,645 87,233 121,578 36,216 105,684	78,936 179,464 268,042 297,595 309,019 366,734 486,312 146,251 424,027

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 Crowsnest 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 3,774 5,557 41,529 57,505 62,568 32,608 102,463	\$ 6,078 8,394 18,726 131,278 176,990 180,920 135,957 345,031	1905 1906 1907 1908 1908 1909 1910 1911 1911 1912	116,071 37,003 70,617 58,708 74,067 57,971 9,852 57,744 68,235	\$ 509,908 168,571 320,357 248,756 329,051 250,718 30,828 252,763 308,416

COKE.-TABLE 4.

Annual Imports of Oven Coke.

Fiscal Year.	Tons.	Value.	Fiscal Year.	Tons.	Value.
		\$			\$
30	3,837 5,492	19,353 26,123	1897 1898	83,330 135,060	$\frac{267,8}{347,0}$
82	8,157	36,670	1899	141,284	362,8
33	8,943	38,588	1900	187,878	506,8
34	$11,207 \\ 11,564$	$\frac{44,518}{41,391}$	1901	$308,786 \\ 267,142$	680,1 842,8
36	11,858	39,756	1903	256,723	1,222,7
37	15,110	56, 222	1904	221,050	765,1
33	$\begin{bmatrix} 25,487 \\ 29,557 \end{bmatrix}$	102,334 91,902	1905	371,593 $480,222$	807,8 1,311,8
90	36,564	133,344	1907*	400,536	1,132,6
91	38,533	177,605	1908	619,269	2,166,0
)2	43,499	194,429	1909	466,292	1,136,6
93	$41,821 \\ 42,864$	$156,277 \\ 176,996$	1910	$702,053 \mid 763,114 \mid$	1,695,6 $1,887,4$
5	43,235	149,434	1912†	641,903	1,637,0
6	61,612	203,826	1913	710, 109	2,023,2

^{*}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 10,603 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. 1902. 1903. 1904. 1905. 1906.	2,662,612 4,094,135 3,281,249 1,649,197 3,407,784 3,725,723 4,424,615	1,614 2,393 3,207 1,773 2,500 2,364 1,738	1908. 1909. 1910. 1911. 1912. 1913.	4,450,166 4,016,824 3,963,591 6,464,155 8,428,896 8,371,600	3,342 3,416 3,491 7,124 11,289 10,608