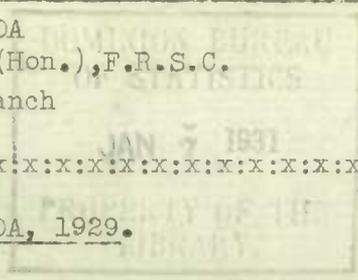


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DOMINION BUREAU OF STATISTICS - CANADA
Dominion Statistician: R. H. Coats, B.A., F.S.S. (Hon.), F.R.S.C.
Mining, Metallurgical and Chemical Branch
Chief: W. H. Losee, B.Sc.



x:x

THE PRIMARY IRON AND STEEL INDUSTRY IN CANADA, 1929.

Sales from the primary iron and steel industry (including pig iron, ferro-alloys, steel ingots and direct steel castings and rolled iron and steel products) in Canada during 1929 amounted to \$72,231,995, an increase of 16 per cent over the \$62,071,674 reported in the previous year which in turn was 36 per cent over the \$45,571,264 recorded for 1927.

Of the 45 firms engaged principally in this line of production, 18 were located in Ontario, 13 in Quebec, 6 in Nova Scotia, 4 in Manitoba, 3 in British Columbia, and 1 in Alberta. These concerns reported fixed and working capital at \$109,446,529, employed a monthly average of 11,218 people to whom was paid \$18,534,681 in salaries and wages, and by manufacturing processes added \$39,717,399 to the value of purchased materials which cost \$32,514,596. An analysis of the sales values by provinces showed the following distribution: Ontario, \$43,739,532; Nova Scotia, \$16,044,488; Quebec, \$10,344,845; Manitoba, \$1,811,930; and Alberta and British Columbia, \$291,200.

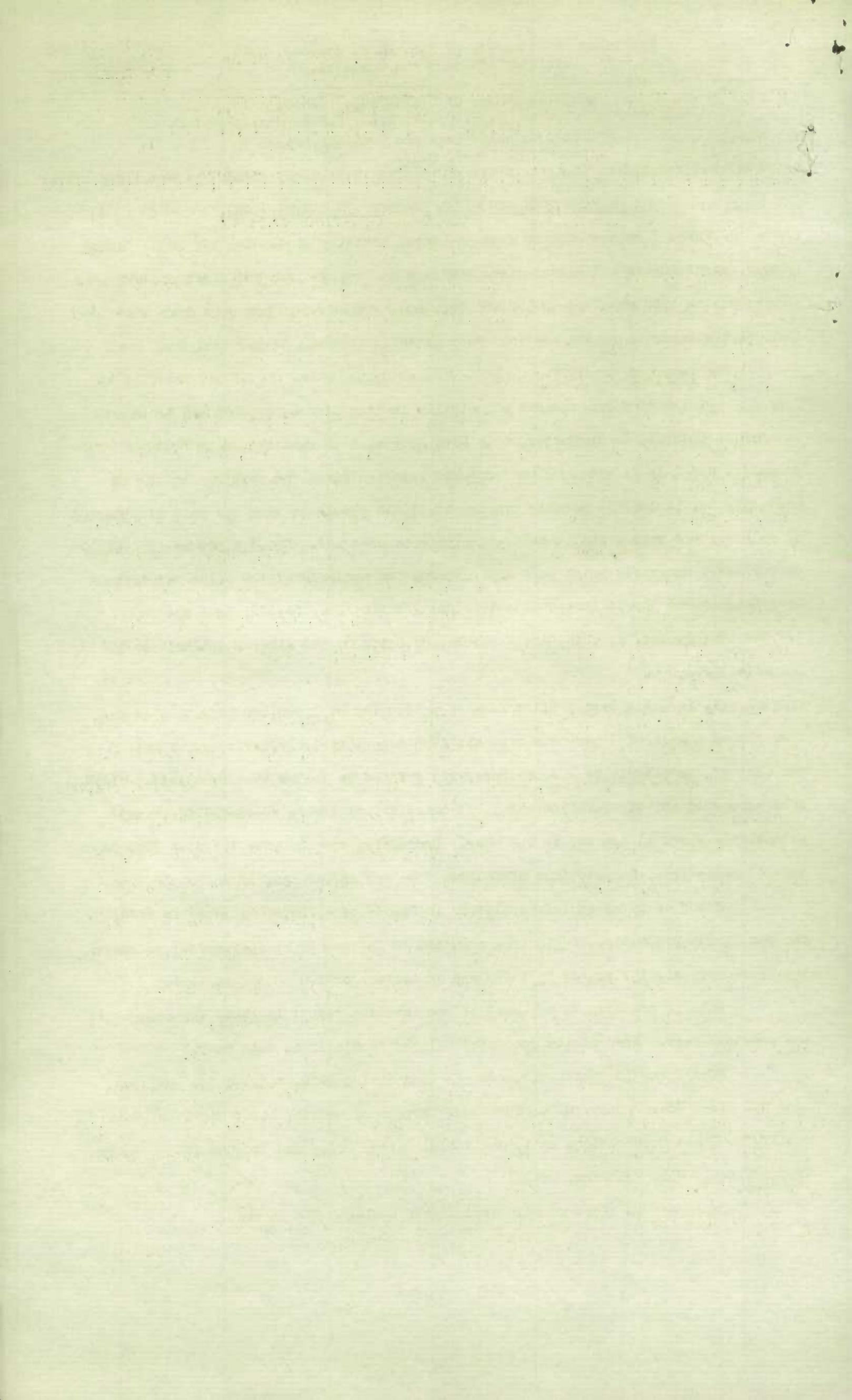
1. (a). Pig Iron - Blast furnace production of 1,080,160 long tons of pig iron showed a gain of 4 per cent over the 1928 output of 1,037,727 tons. About 70 per cent of the output, or 753,889 tons, was shipped to the makers' own plants, 324,759 tons were sold and the remainder of 1,512 tons, not otherwise accounted for, was probably in stock at the end of the year. Production for the year included 770,478 tons of basic iron, 221,644 tons of foundry iron and 88,038 tons of malleable iron.

Based on an estimated population in Canada of 9,796,800 persons in 1929, the per capita production of pig iron amounted to 247 pounds as against 241 pounds in the previous year, 167 pounds in 1927, and an average of 178 pounds in 1926.

Ontario produced 71 per cent of the Canadian output in 1929, the same as in the previous year. Nova Scotia accounted for the remainder in each year.

Four firms in Canada produced pig iron during 1929, namely: The Dominion Iron and Steel Co., Sydney, N.S.; The Steel Company of Canada, Ltd., Hamilton, Ont.; The Algoma Steel Corporation, Ltd., Sault Ste. Marie, Ont.; and The Canadian Furnace Company, Ltd., Port Colborne, Ont.

Employees in blast furnace departments numbered 773 in 1929.



1(b). Ferro-alloys.- Production of ferro-alloys in Canada during 1929

totalled 89,116 long tons as compared with 44,882 tons for last year. The following firms manufactured during 1929: Electro Metallurgical Company of Canada, Ltd., Welland, Ont. (including the Union Carbide Company of Canada); Canadian Carborundum Co. Ltd., Niagara Falls, Ont.; The Abrasive Company of Canada, Ltd., Hamilton, Ont.; The Exolon Company, Thorold, Ont.; and the Aluminum Company of Canada, Ltd., Arvida, P.Q. Only the first mentioned company has been included in the primary iron and steel industry, the other concerns being classified in other groups according to their principal products.

2. Steel Ingots and Castings - Production of steel ingots and castings in 1929 was 1,378,024 tons, an increase of 12 per cent over the total of 1,234,719 tons for 1928. The year's figures included 1,309,606 tons of steel ingots and 68,418 tons of steel castings; practically all the ingots were intended for the further use of the makers while most of the castings were made for sale.

Per capita production in Canada of steel ingots and castings amounted to 316 pounds during the year under review, as compared with 288 pounds in 1928, an average of 213 pounds in 1927, and 185 pounds in 1926.

During the year 25 plants had furnaces for making steel ingots and direct steel castings. Quebec had 9 plants; Ontario, 7; Manitoba, 3; British Columbia, 3; Nova Scotia, 2; and Alberta, 1.

Employees in these steel plants numbered 4,594 in 1929.

3. Rolled Products - Rolling mill sales were valued at \$50,758,322 in 1929 as compared with \$46,565,831 in 1928. During the year 1,607,063 long tons of iron and steel passed through the rolling mills and of this total 1,426,757 tons came from the producers' own plants and 180,036 tons were purchased.

The 15 rolling mills operated during 1929 were located as follows: Ontario, 7; Quebec, 4; Nova Scotia, 3; Manitoba, 1. The average number of employees in these plants in 1929 was 5,505.

Table 1.- PRINCIPAL STATISTICS OF THE PRIMARY IRON AND STEEL INDUSTRY IN CANADA, 1925-1929.

Year	No. of plants	Capital employed	Average number of employ-ees	Salaries and wages	(x) Cost of materials at works	Selling(x) value of products at works	Value added by manu-facturing
		\$		\$	\$	\$	\$
1925 ...	32	82,593,940	5,101	7,291,172	16,433,911	35,337,685	18,903,774
1926 ...	33	86,987,454	6,140	9,054,170	19,912,723	41,183,565	21,270,842
1927 ...	36	96,295,734	7,396	11,809,198	18,993,940	45,571,264	26,577,324
1928 ...	40	114,292,363	9,057	15,470,836	27,164,463	62,071,674	34,907,211
1929 ...	45	109,446,529	11,218	18,534,681	32,514,596	72,231,995	39,717,399

(x) Figures of materials used are of purchased materials only, and production figures cover sales only.

Table 2.- PRINCIPAL STATISTICS OF THE PRIMARY IRON AND STEEL INDUSTRY IN CANADA, BY PROVINCES, 1928 and 1929.

Province	Year	No. of plants	Capital employed	Average number of employees	Salaries and wages	Value of sales
			\$		\$	\$
Nova Scotia.....	1928 ..	6	29,978,715	2,121	3,263,144	15,625,206
	1929 ..	6	28,626,944	2,150	3,352,388	16,044,488
Quebec.....	1928 ..	10	10,282,082	1,737	2,433,334	7,350,581
	1929 ..	13	11,765,863	2,624	3,569,143	10,344,845
Ontario.....	1928 ..	16	72,098,748	4,709	9,092,742	36,926,646
	1929 ..	18	66,941,099	5,915	10,985,718	43,739,532
Manitoba.....	1928 ..	4	1,800,911	416	579,461	1,959,241
	1929 ..	4	1,884,623	435	501,832	1,811,930
CANADA (x).....	1928 ..	40	114,292,363	9,057	15,470,836	62,071,674
	1929 ..	45	109,446,529	11,218	18,534,681	72,231,995

(x) Includes 1 plant in Alberta and 3 in British Columbia.

(a) PIG IRON

Table 3.- MATERIALS CHARGED TO IRON BLAST FURNACES IN CANADA, 1929.

Item	Quantity	Cost at furnace
Foreign iron ore.....	1,924,579 long tons	\$ 6,904,374
Mill cinder, scale, slags, etc.....	120,779 long tons	569,655
Scrap.....	61,955 long tons	664,202
Limestone:-		
From Canadian quarries.....	130,239 short tons	210,752
From foreign sources.....	468,793 short tons	616,283
Coke:-		
From Canadian coal.....	406,290 short tons	2,018,109
From imported coal.....	680,140 short tons	3,601,018
Imported.....	84,741 short tons	575,738
TOTAL.....	...	15,160,131

Table 4.- PRODUCTION OF PIG IRON IN CANADA, BY GRADES, 1929.

Item	Total tonnage made	Tonnage shipped to companies own plants	S A L E S	
			Quantity	Value
	long tons	long tons	long tons	\$
<u>PIG IRON</u>				
Basic.....	770,478	748,415	16,645	326,296
Foundry.....	221,644	2,888	237,281	4,754,979
Malleable.....	88,038	2,586	70,833	1,463,370
TOTAL.....	1,080,160	753,889	324,759	6,544,645

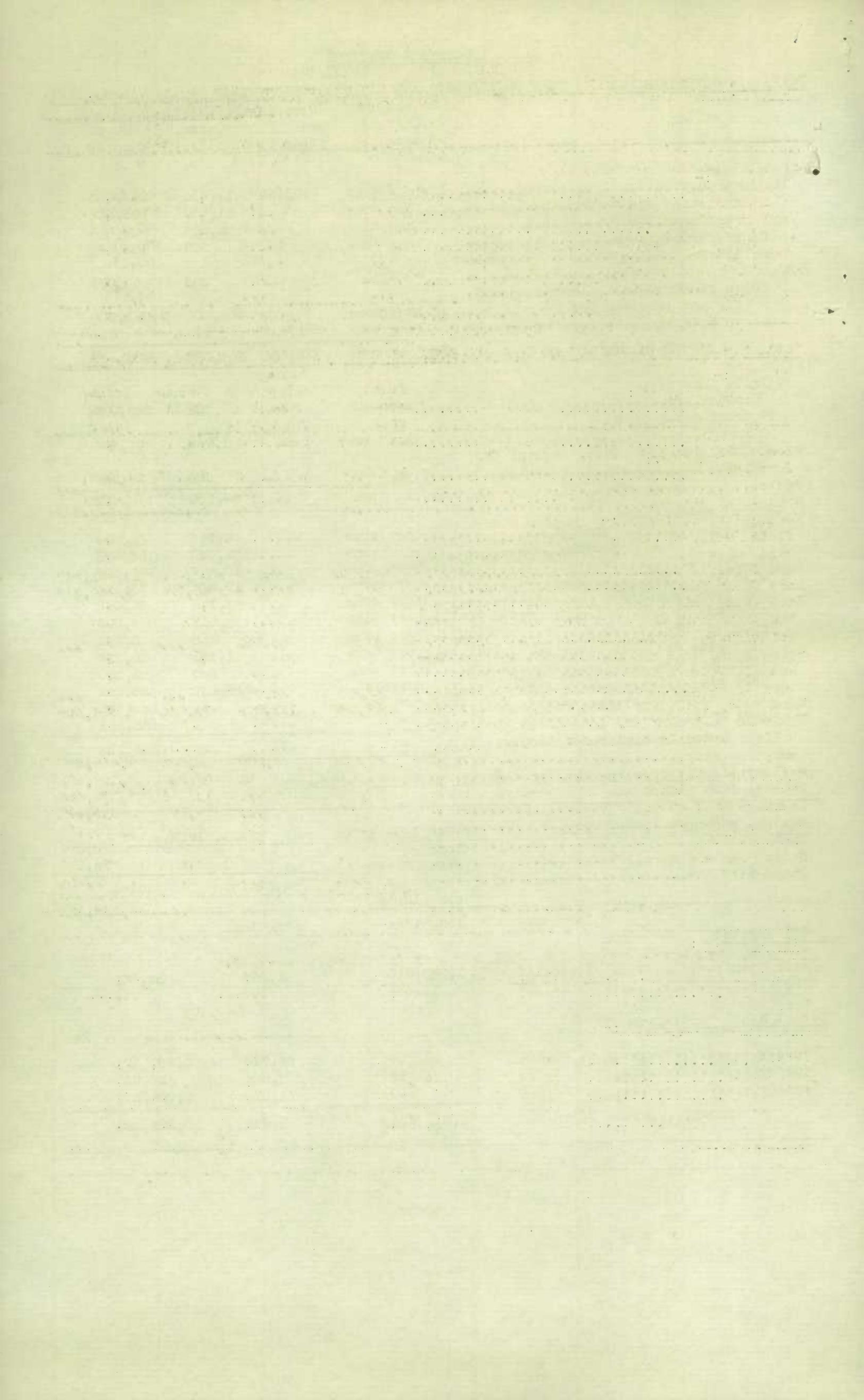
(b) STEEL INGOTS AND CASTINGS

Table 5.- MATERIALS USED IN THE STEEL INGOTS AND CASTINGS INDUSTRY IN CANADA, 1929.

Item	Unit of measure	Companies' PURCHASED MATERIALS		
		own production	Quantity	Cost at furnace
(a) Metals:-				
Pig iron.....	long tons	750,464	11,414	269,083
Spiegeleisen and ferromanganese.....	long tons	...	11,769	796,585
Ferrosilicon.....	long tons	...	5,586	328,886
Other ferro-alloys.....	long tons	...	603	133,548
Metals for making alloy steels (nickel, etc.).....	...	...	208	64,335
Scrap iron or steel, including old rails not intended for re-rolling.....	long tons	...	454,808	5,891,000
Scrap made in works reporting.....	long tons	281,137	...	...
Total Metals.....	long tons	1,031,931	484,388	7,483,437
(b) Ores:-				
Crude iron ore:				
Foreign.....	long tons	...	90,301	606,919
Manganiferous ore:				
Foreign.....	long tons	...	3,769	74,764
Chrome, etc.:				
Foreign.....	long tons	...	989	29,020
Total Ores.....	long tons	...	95,059	710,703
(c) General materials:-				
Limestone.....	Canadian..... short tons	...	46,216	83,639
	Foreign..... short tons	...	108,020	154,828
Fluorspar.....	short tons	...	10,299	137,547
Dolomite.....	short tons	...	19,495	63,178
Coke from Canadian coal.....	short tons	...	2,170	26,462
Coke made in Canada from imported coal.....	short tons	...	617	7,096
Imported coke.....	short tons	...	356	5,132
Anthracite coal.....	short tons	...	1,151	9,737
Bituminous coal.....	short tons	...	225	2,250
Charcoal.....	bushels	...	114,400	28,262
Carbon electrodes.....	-	...	...	131,651
Other materials.....	-	...	...	423,391
Total General Materials.....	-	...	...	1,073,173
TOTAL VALUE OF ALL METALS, ORES AND GENERAL MATERIALS PURCHASED				9,267,313

Table 6.- PRODUCTS OF THE STEEL INGOTS AND CASTINGS INDUSTRY IN CANADA, 1929.

Item	Total tonnage made	Tonnage shipped to companies' own plants	S A L E S	
			Quantity	Value
Steel Ingots:				
Basic open hearth.....	1,295,162	1,283,810	1,073	31,822
Electric.....	14,444	14,444	...	...
Direct Steel Castings:-				
Basic.....	35,806	10,154	26,770	3,979,471
Bessemer.....	2,590	66	2,524	565,965
Electric.....	30,022	150	31,614	5,706,202
TOTAL.....	1,378,024	1,315,624	61,981	10,283,460



(c) ROLLED IRON AND STEEL PRODUCTS!

Table 7.- MATERIALS USED IN THE ROLLED IRON AND STEEL PRODUCTS INDUSTRY IN CANADA, 1929.

Item	Companies'	PURCHASED MATERIALS	
	own	Quantity	Cost at
	make		mill
	long tons	long tons	\$
Steel, crude and semi-finished (ingots, blooms, billets, slabs).....	1,407,535	118,786	4,541,321
Rails, old or scrap.....	...	50,269	858,863
Iron track and scrap bar.....	8,940	143	25,107
Iron and steel scrap.....	10,282	8,882	133,310
Axles, scrap.....	...	2,226	52,145
Other iron and steel.....	21,726	...	...
All other materials.....	...	...	73,879
TOTAL.....	1,448,483	180,306	5,684,625

Table 8.- OUTPUT OF THE ROLLED IRON AND STEEL PRODUCTS INDUSTRY IN CANADA, 1929.

Products	Total tonnage made	Tonnage		
		shipped to	Tonnage	Income
		companies' own plants	sold	from sales
	long tons	long tons	long tons	\$
Blooms, billets and slabs, (except for forging).....	1,159,045	1,012,912	74,402	2,488,945
Rails.....	383,002	194	381,634	17,543,906
Structural shapes.....	31,304	839	31,106	1,552,835
Merchant bars, including rounds, squares, flats (6 in. and under), except flats for cold rolling and bars for reinforcing concrete.....	244,593	36,191	206,605	10,921,567
Bars for reinforcing concrete.....	59,515	3,700	60,738	3,240,317
Long angle splice bars, long fish plate bars, tie plate bars and all other long rail joint shape bars.....	83,552	83,552	...	...
Spike rods, bolt and nut rods, horseshoe bars, and all other miscellaneous rolled (not forged) forms not elsewhere specified.....	17,800	18,583	....	....
Wire rods, including chain rods.....	142,589	111,879	33,632	1,316,546
Finished rolled axles, and rolled blooms, billets and axle blanks for forging purposes only.....	27,938	4,500	18,352	1,408,477
Railway tie plates.....	60,191	24	59,323	3,168,851
Railway fish plates and angle splice bars...	18,626	...	18,853	1,188,486
Forgings of iron and steel.....	9,273	...	9,257	919,491
Railway spikes.....	15,206	230	14,680	1,059,175
Washers.....	1,000	118	784	118,356
Scrap iron and steel.....	3,427	62	3,365	39,016
Other products.....	....	...	...	5,792,354
TOTAL.....	....	...	...	50,758,322

Table 9.- PRODUCTION OF PIG IRON IN CANADA, BY PROVINCES, 1924-1929.

(Long tons)

Year	Nova Scotia	Ontario	TOTAL
1924	177,078	415,971	593,049
1925	201,795	368,971	570,766
1926	250,238	507,079	757,317
1927	249,549	460,148	709,697
1928	302,756	734,971	1,037,727
1929	310,801	769,359	1,080,160

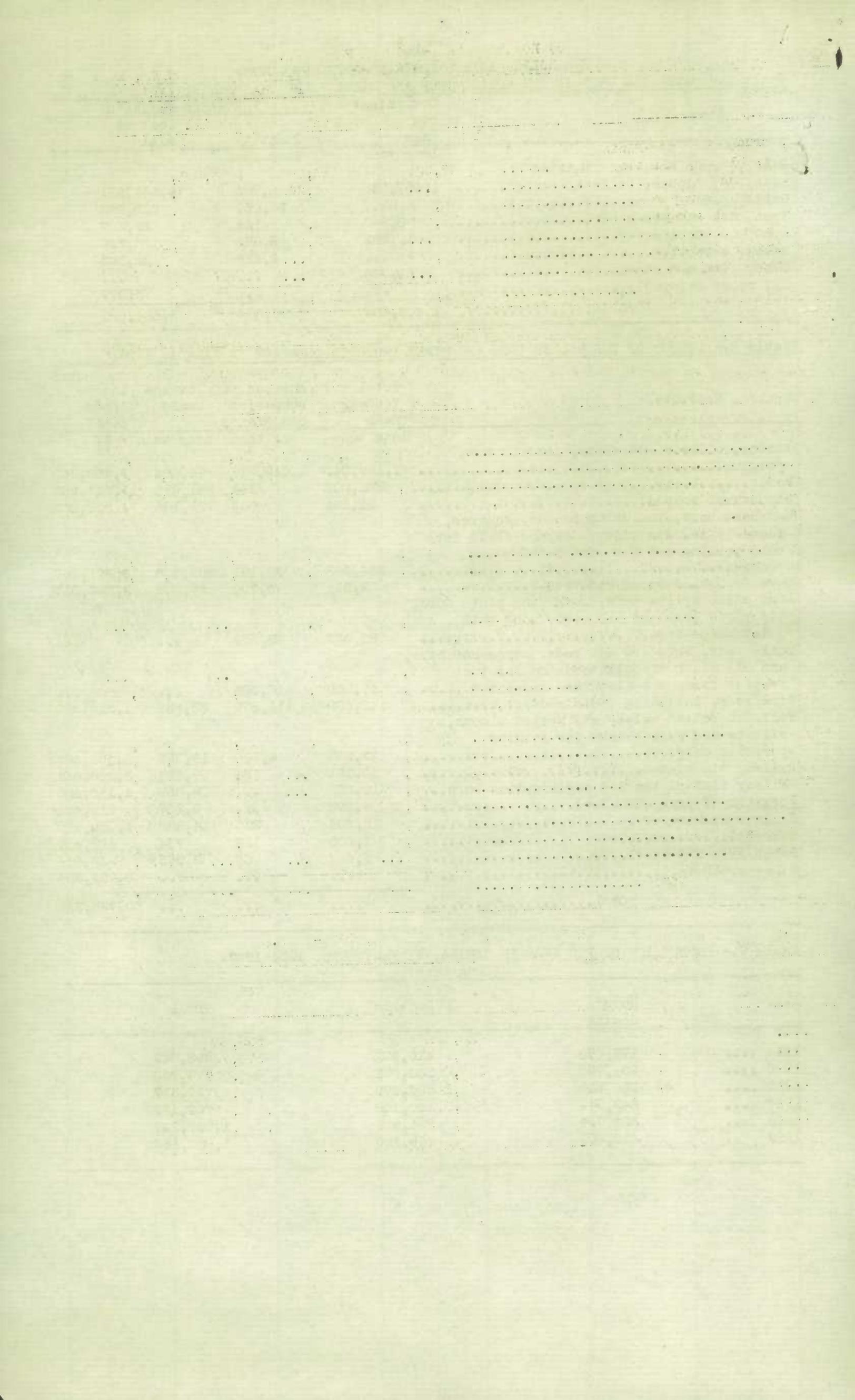


Table 10.- PRODUCTION OF PIG IRON IN CANADA, BY GRADES, 1924-1929.
(Long tons)

Year	Basic	Foundry	Malleable	TOTAL
1924 ...	357,704	173,663	61,682	593,049
1925 ...	409,590	101,968	59,208	570,766
1926 ...	469,630	243,307	44,380	757,317
1927 ...	523,701	145,737	40,209	709,697
1928 ...	724,559	233,386	79,782	1,037,727
1929 ...	770,478	221,644	83,038	1,080,160

Table 11.- PRODUCTION OF PIG IRON IN CANADA, BY MONTHS, 1926-1929.
(Long tons)

Months	1926	1927	1928	1929
January.....	56,644	57,117	65,006	87,764
February.....	49,746	50,695	64,691	93,939
March.....	53,251	75,637	78,390	86,176
April.....	67,607	77,240	74,736	79,341
May.....	72,762	78,987	87,811	81,464
June.....	70,854	69,437	97,379	89,873
July.....	67,232	50,997	95,422	99,786
August.....	58,780	63,234	91,522	112,528
September.....	64,187	52,470	90,516	93,816
October.....	70,124	38,097	93,186	91,409
November.....	52,345	37,989	95,426	86,516
December.(x).....	73,765	63,197	103,642	72,548
TOTAL.....	757,317	709,697	1,037,727	1,080,160

(x) Slight errors in monthly production figures have been compensated in December totals.

Table 12.- PRODUCTION OF FERRO-ALLOYS IN CANADA, 1924-1929.

Year	Long tons
1924	35,034
1925	25,709
1926	57,050
1927	56,230
1928	44,482
1929	89,116

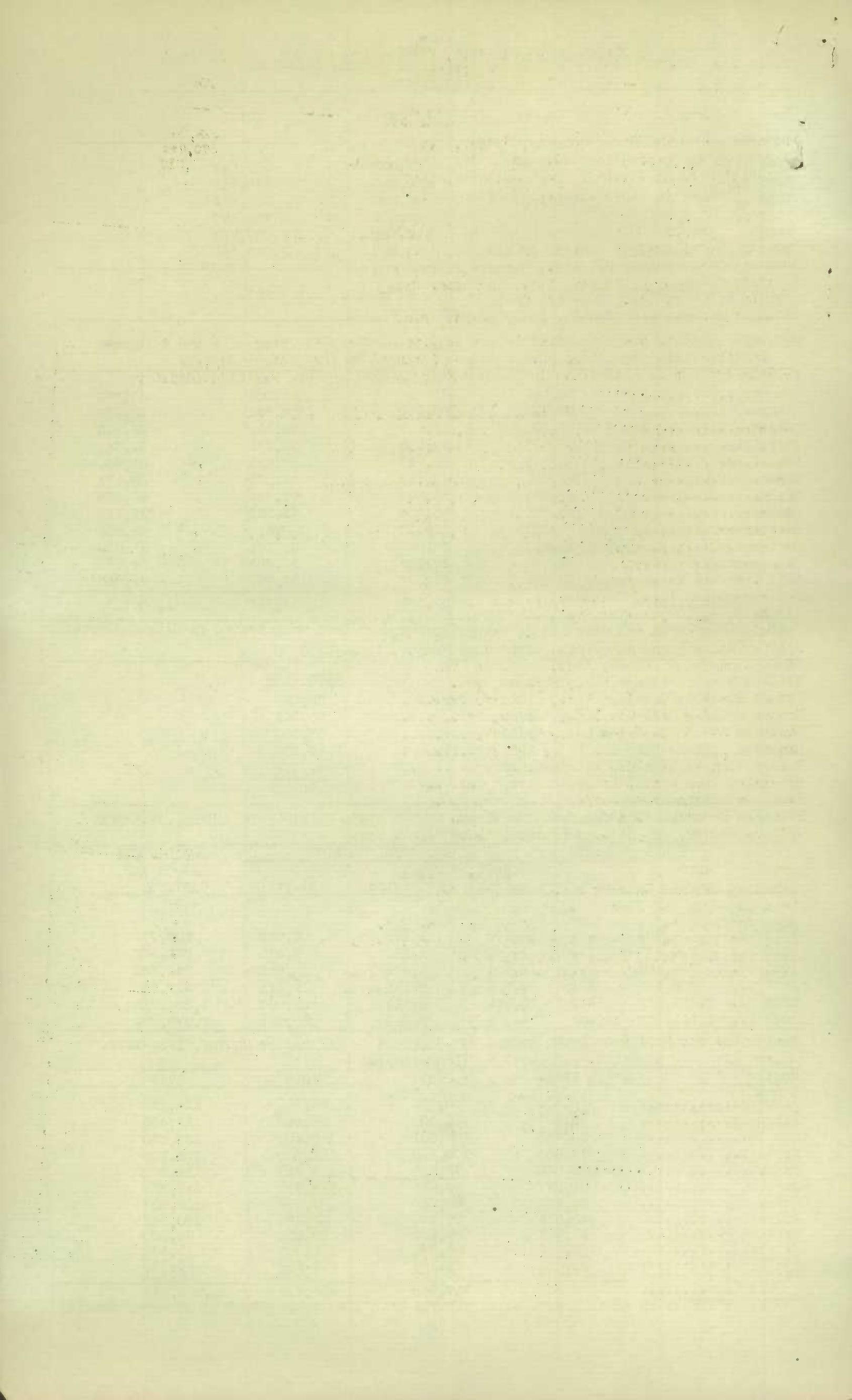
Table 13.- PRODUCTION OF STEEL INGOTS AND DIRECT STEEL CASTINGS IN CANADA, BY KINDS, 1924 - 1929 (Long tons)

Year	STEEL INGOTS		DIRECT STEEL CASTINGS			TOTAL STEEL INGOTS AND CASTINGS
	Open hearth	Electric	Open hearth	Converter	Electric	
1924 ...	634,954	...	18,393	1,448	4,972	659,767
1925 ...	734,277	...	9,059	1,732	7,435	752,503
1926 ...	744,103	...	19,831	1,676	10,652	776,262
1927 ...	868,440	134	17,569	2,191	19,611	907,945
1928 ...	1,189,399	602	20,109	2,019	22,590	1,234,719
1929 ...	1,295,162	14,444	35,806	2,590	30,022	1,378,024

Table 14.- PRODUCTION OF STEEL INGOTS AND CASTINGS IN CANADA, BY MONTHS, 1924-1929.
(Long tons).

Month	1926	1927	1928	1929
January.....	68,536	58,551	84,295	116,260
February.....	53,157	55,620	98,820	117,445
March.....	58,765	107,381	118,258	137,158
April.....	79,936	109,107	112,780	122,102
May.....	89,513	96,711	117,655	126,372
June.....	81,277	59,940	116,530	119,505
July.....	64,847	55,250	82,807	129,827
August.....	45,674	77,479	88,677	120,282
September.....	58,837	54,250	99,888	99,000
October.....	63,542	56,371	108,987	115,674
November.....	54,311	80,730	108,463	93,648
December.(x).....	57,867	96,555	97,559	80,751
Total.....	776,262	907,945	1,234,719	1,378,024

(x) Slight errors in monthly production figures have been compensated in December totals.



(a) PIG IRON

Dominion Iron and Steel Company, Sydney, N.S.
Algoma Steel Corporation Ltd., Sault Ste. Marie, Ont.
Canadian Furnace Co. Ltd., Port Colborne, Ont.
Steel Company of Canada, Ltd., Hamilton, Ont.

(b) FERRO-ALLOYS

Electro Metallurgical Company of Canada, Ltd., Welland, Ont.
xCanadian Carborundum Co. Ltd., Niagara Falls, Ont.
xAbrasive Company of Canada, Ltd., Hamilton, Ont.
xExolon Company, Ltd., Thorold, Ont.
zAluminium Company of Canada, Ltd., Arvida, P.Q.

x- These concerns are classified in the Artificial Abrasive Industries and data regarding their operations have not been included in the present report.

z- This concern is classified in the Non-Ferrous Smelting and Refining Industry.

(c) STEEL INGOTS AND DIRECT CASTINGS

Dominion Iron and Steel Co., Sydney, N.S.
J. W. Cummings Manufacturing Co. Ltd., New Glasgow, N.S.
Beauchemin & Fils, Ltd., Sorel, P.Q.
Canadian Brakeshoe and Foundry Co. Ltd., Sherbrooke, P.Q.
Manganese Steel Castings Ltd., Sherbrooke, P.Q.
Canadian Steel Foundries, Ltd., Montreal, P.Q.
Shawinigan Stainless Steel and Alloys Ltd., Shawinigan Falls, P.Q.
La Compagnie F. X. Drolet, Quebec, P.Q.
Canadian Tube & Steel Products, Montreal, P.Q.
Hull Iron and Steel Foundries Ltd., Hull, P.Q.
Joliette Steel Ltd., Joliette, P.Q.
Algoma Steel Corporation Ltd., Sault Ste. Marie, Ont.
Dominion Foundries and Steel Ltd., Hamilton, Ont.
William Kennedy and Sons Ltd., Owen Sound, Ont.
Steel Company of Canada, Ltd., Hamilton, Ont.
Welland Steel Castings Ltd., Welland, Ont.
Canada Electric Castings Ltd., Orillia, Ont.
London Rolling Mill Co. Ltd., London, Ont.
Manitoba Steel Foundries Ltd., Selkirk, Man.
Manitoba Rolling Mill Co. Ltd., Selkirk, Man.
Vulcan Iron Works Ltd., Winnipeg, Man.
Riverside Iron Works, Ltd., Calgary, Alberta.
Vancouver Engineering Works, Vancouver, B.C.
Reliance Foundry Co. Ltd., Vancouver, B.C.
Wallace Foundry Co. Ltd., Vancouver, B.C.

(d) ROLLING MILLS

Canadian Car and Foundry Ltd., Amherst, N.S.
Dominion Iron and Steel Co., Sydney, N.S.
Nova Scotia Steel and Coal Co. Ltd., Trenton, N.S.
Canadian Tube and Steel Products Ltd., Montreal, P.Q.
Peck Rolling Mills, Ltd., Montreal, P.Q.
Steel Company of Canada, Ltd. - Notre Dame St., Montreal, P.Q.
St. Patrick St., Montreal, P.Q.
Wilcox Ave., Hamilton, Ont.
Queen St. N., Hamilton, Ont.
London Rolling Mill Co. Ltd., London, Ont.
Algoma Steel Corporation, Ltd., Sault Ste. Marie, Ont.
Burlington Steel Company, Ltd., Hamilton, Ont.
Dominion Foundries and Steel Ltd., Hamilton, Ont.
Canadian Atlas Steels Ltd., Welland, Ont.
Manitoba Rolling Mill Co. Ltd., Selkirk, Man.

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