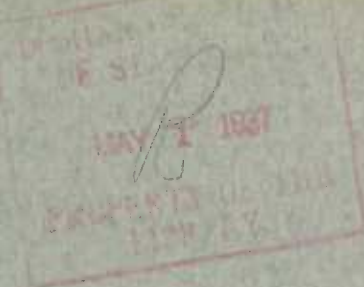


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CANADA
DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
CENSUS OF INDUSTRY
MINING, METALLURGICAL & CHEMICAL BRANCH

THE CASTINGS AND FORGINGS
INDUSTRY
IN
CANADA
1935

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ANNUAL INDUSTRY REPORT

IRON AND STEEL AND THEIR PRODUCTS GROUP

THE CASTINGS AND FORGINGS INDUSTRY, 1935.

(Including (a) commercial castings and forgings; pipe and fittings. (b) Heating and cooking apparatus).

In accordance with the provisions of the Statistics Act each manufacturing concern in Canada submits to the Dominion Bureau of Statistics at Ottawa a yearly report covering such items as production, employment, capital, etc. In most cases a manufacturer makes more than one product but is not asked to apportion these details between the different articles which he manufactures. It is impossible, therefore, except in a few cases, to compile detailed figures of employment, etc., for any single commodity.

For the presentation of these detailed statistics the Bureau has subdivided manufacturing into nine groups of industries, producing concerns being classified according to the principal component material of their major products. For example, the pulp and paper industry is classified under "Wood and Paper"; iron foundries under "Iron and Steel and Their Products", etc. These main groups are further divided into industries to which the concerns are allotted according to the nature of their main products. The iron and steel group is subdivided into 14 industries, one being the Castings and Forgings Industry which is reviewed in this bulletin. This industry covers the operations of iron and steel works which were occupied chiefly in making commercial iron castings, stoves and other heating equipment, pipe and tubing, drop forgings of all kinds, and other related products. Some machinery, boilers, engines, pumps, etc., were made as secondary or minor products.

Some iron foundries have not been included in the Castings and Forgings Industry but have been classified to other special groups. For example, some makers of agricultural implements operated iron foundries to make castings for their own use and these concerns have, of course, been included in the Farm Implements Industry which is reviewed in a separate bulletin. Supplementary data covering all iron foundries have been assembled and are appended to this report.

Statistics for the Castings and Forgings Industry are given in this report under two headings: (a) commercial castings and forgings, pipe and fittings, which includes all works that made custom castings and forgings or pipe and fittings as chief products; and (b) heating and cooking apparatus which covers plants that made furnaces, stoves, oil burners, water heaters, etc. as chief products. In the former group there were 243 establishments in 1935, and in the latter 60, or a total of 303 for the industry, distributed as follows: 167 in Ontario, 64 in Quebec, 31 in British Columbia, 12 in Nova Scotia, 10 in New Brunswick, 9 in Alberta, 4 in each of Manitoba and Saskatchewan, and 2 in Prince Edward Island. These works gave employment to 13,760 workers in 1935 and paid \$14,138,972 in salaries and wages. Expenditures for manufacturing materials amounted to \$14,042,882 and fuel and electricity cost \$1,591,805. Production was valued at \$38,779,813, an increase of 10 percent over the 1934 total of \$35,128,086.

Among the main products of this industry in 1935 were: commercial iron castings, \$8,434,718; stoves and hot plates, \$6,629,747; warm air furnaces, \$1,044,103; pipe, tubing and fittings, \$8,699,246; enamelled cast iron sanitaryware, \$929,423; machinery and parts \$1,336,640; commercial forgings, \$2,522,677; and custom repair work \$2,056,820. These figures do not, in any case, represent the total Canadian output of these commodities as there was also a small production in other industries; totals are given in the supplementary tables, 12 to 19 inclusive.

This report is divided into three sections. The tables given under section one refer only to the Castings and Forgings Industry and correspond with data published in separate bulletins for each of the other industries in the iron and steel group. Section two consists of supplementary tables in which are given the total Canadian production for the main commodities reported by concerns in this industry. Section three assembles data covering all iron foundries in Canada.

SECTION ONE - INDUSTRY TABLES

Table 1 - PRINCIPAL STATISTICS OF THE CASTINGS AND FORGINGS INDUSTRY, 1921 - 1935.

Years	No. of plants	Capital employed	Average number of em- ployees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1921.....	366	82,266,395	16,758	20,613,263	1,940,848	20,626,750	55,220,144
1922.....	329	80,872,431	16,484	19,383,896	2,074,480	19,817,117	54,418,262
1923.....	321	88,325,248	19,146	23,634,438	3,116,856	26,741,217	70,283,006
1924.....	317	88,674,538	17,217	20,878,462	1,946,315	22,182,216	57,494,594
1925.....	324	84,812,441	17,120	21,039,510	1,908,345	22,522,361	61,754,339
1926.....	335	91,193,541	19,183	24,037,578	2,317,468	27,250,473	70,235,798
1927.....	328	89,505,687	19,149	24,267,396	2,082,819	26,792,119	69,395,343
1928.....	327	95,326,911	20,782	26,759,016	2,223,843	31,530,148	81,904,852
1929.....	336	102,900,796	23,443	30,854,654	2,581,003	35,994,441	91,575,146
1930.....	340	100,318,189	20,499	25,871,261	2,121,827	28,262,602	74,233,671
1931.....	333	95,377,318	17,049	19,203,234	1,692,572	18,598,048	51,455,296
1932.....	322	79,225,330	12,452	11,821,243	1,241,672	9,825,439	29,285,144
1933.....	327	72,810,073	11,111	9,816,895	1,130,725	8,053,094	24,197,347
1934.....	337	71,187,589	13,116	13,199,126	1,460,757	12,141,691	35,128,086
1935 -							

Commercial castings and forgings; pipe and fittings:-

243	48,636,433	9,890	10,262,444	1,294,368	10,687,919	28,718,833
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Cooking and heating apparatus:-

60	14,752,815	3,870	3,876,528	297,437	3,354,963	10,060,980
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TOTAL.....	303	63,389,248	13,760	14,138,972	1,591,805	14,042,882	38,779,813
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TABLE 2 - PRINCIPAL STATISTICS BY PROVINCES, 1935.

Provinces	No. of plants	Capital employed	Average number of em- ployees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
Commercial castings and forgings; pipe and fittings:-							
Prince Edward Is.	2)	2,284,252	500	612,069	61,058	500,924	1,402,840
Nova Scotia.....	10)						
New Brunswick....	7	578,998	123	151,436	11,624	77,956	303,638
Quebec.....	58	14,503,959	2,230	2,099,759	245,630	2,555,981	6,540,889
Ontario.....	125	26,550,616	6,184	6,462,268	902,205	7,022,535	18,525,229
Manitoba.....	4	1,810,257	256	280,793	21,468	120,895	520,907
Saskatchewan....	4	197,408	49	47,416	3,617	14,874	110,066
Alberta.....	8	1,113,653	182	194,664	22,562	116,526	361,882
British Columbia.	25	1,597,290	366	414,039	26,204	278,228	953,382
CANADA.....	243	48,636,433	9,890	10,262,444	1,294,368	10,687,919	28,718,833
Cooking and heating apparatus:-							
New Brunswick....	3	1,449,538	325	307,612	18,502	240,538	872,895
Quebec.....	6	3,420,609	590	514,726	56,889	493,889	1,354,633
Ontario.....	42	9,680,202	2,861	2,974,196	215,399	2,592,052	7,684,462
British Columbia.	6	159,169	58	48,859	2,100	20,201	104,444
Nova Scotia.....	2)						
Alberta.....	1)	43,297	36	31,135	4,547	8,283	44,546
CANADA.....	60	14,752,815	3,870	3,876,528	297,437	3,354,963	10,060,980

Table 3 - CAPITAL EMPLOYED, BY PROVINCES, 1935.

Provinces	Present value of land, buildings, fixtures and machinery	Inventory value of materials on hand, stocks in process, finished products, fuel and miscellaneous supplies on hand	Operating capital (cash, bills and accounts re- ceivable, pre- paid expenses, etc.)	TOTAL CAPITAL EMPLOYED
	\$	\$	\$	\$
Commercial castings and forgings; pipe and fittings:-				
Prince Edward Is..)	1,411,279	439,021	433,952	2,284,252
Nova Scotia.....)				
New Brunswick.....	424,415	45,167	109,416	578,998
Quebec.....	8,746,371	2,219,456	3,538,132	14,503,959
Ontario.....	16,088,058	5,516,594	4,945,964	26,550,616
Manitoba.....	1,506,745	197,704	105,808	1,810,257
Saskatchewan.....	112,561	57,758	27,089	197,408
Alberta.....	707,726	246,318	159,609	1,113,653
British Columbia...	879,676	299,076	418,538	1,597,290
CANADA.....	29,876,831	9,021,094	9,738,508	48,636,433
Cooking and heating apparatus:-				
New Brunswick.....	772,821	212,465	464,252	1,449,538
Quebec.....	1,858,343	327,855	1,234,411	3,420,609
Ontario.....	5,412,350	2,328,084	1,938,768	9,680,202
British Columbia...	76,866	54,262	28,041	159,169
Nova Scotia.....)				
Alberta.....)	21,500	1,700	20,097	43,297
CANADA.....	8,142,880	2,924,366	3,685,569	14,752,815

Table 4 - SIZE OF ESTABLISHMENTS, ACCORDING TO PRODUCTION, NUMBER OF EMPLOYEES AND CAPITAL EMPLOYED, 1935.

	Number of plants	Capital employed \$	Number of employees	Gross selling value of products at works \$
<u>Commercial castings and forgings; pipe and fittings:-</u>				
(a) <u>PRODUCTION</u>				
Under \$5,000.....	45	366,743	123	127,534
\$5,000 to \$10,000.....	37	693,538	199	265,186
\$10,001 to \$25,000.....	48	1,901,707	519	816,222
\$25,001 to \$50,000.....	26	1,430,752	493	929,627
\$50,001 to \$100,000.....	33	3,695,417	1,013	2,317,734
\$100,001 to \$250,000.....	28	9,357,651	1,866	4,720,979
\$250,001 to \$500,000.....	14	8,496,235	2,065	5,124,931
\$500,000 to \$1,000,000....	7	6,165,299	1,836	5,317,409
Over \$1,000,000.....	5	16,529,091	1,776	9,099,211
TOTAL.....	243	48,636,433	9,890	28,718,833
(b) <u>EMPLOYEES</u>				
1 or 2.....	28	204,935	44	83,303
3 to 10.....	83	1,936,418	487	941,509
11 to 20.....	42	1,898,116	621	1,214,684
21 to 50.....	45	8,020,248	1,487	3,751,184
51 to 100.....	17	5,045,080	1,225	2,823,233
101 to 250.....	23	18,350,537	3,918	12,583,053
Over 250.....	5	13,181,099	2,108	7,321,867
TOTAL.....	243	48,636,433	9,890	28,718,833
(c) <u>CAPITAL</u>				
Under \$25,000.....	95	1,142,060	523	823,984
\$25,000 to \$100,000.....	76	3,442,376	1,257	2,620,382
\$100,001 to \$500,000.....	50	12,264,237	3,796	9,623,202
\$500,001 to \$1,000,000....	12	8,067,508	1,497	3,907,830
Over \$1,000,000.....	10	23,720,252	2,817	11,743,435
TOTAL.....	243	48,636,433	9,890	28,718,833
<u>Cooking and heating apparatus:-</u>				
(a) <u>PRODUCTION</u>				
Under \$5,000.....	5	46,490	13	14,174
\$5,000 to \$10,000.....	11	135,381	40	79,447
\$10,001 to \$25,000.....	6	144,784	62	88,620
\$25,001 to \$50,000.....	9	765,973	163	304,042
\$50,001 to \$100,000.....	8	712,120	291	595,900
\$100,001 to \$250,000.....	6	1,550,992	312	850,351
\$250,001 to \$500,000.....	12	7,803,666	1,953	5,075,824
Over \$500,000.....	3	3,592,409	1,036	3,052,622
TOTAL.....	60	14,752,815	3,870	10,060,980
(b) <u>EMPLOYEES</u>				
1 or 2.....	7	97,071	11	33,553
3 to 10.....	14	246,900	77	148,268
11 to 20.....	8	660,232	107	354,937
21 to 50.....	12	1,798,571	385	1,039,812
51 to 100.....	6	1,591,356	436	914,007
101 to 250.....	10	5,839,345	1,680	4,921,463
Over 250.....	3	4,519,340	1,174	2,648,940
TOTAL.....	60	14,752,815	3,870	10,060,980
(c) <u>CAPITAL</u>				
Under \$25,000.....	22	274,615	134	238,594
\$25,000 to \$100,000.....	12	793,371	231	489,201
\$100,001 to \$500,000.....	15	3,974,293	1,020	2,560,401
Over \$500,000.....	11	9,710,536	2,485	6,772,784
TOTAL.....	60	14,752,815	3,870	10,060,980

Table 5 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1935.

Provinces	AVERAGE NUMBER OF EMPLOYEES				TOTAL	Salaries	Wages	TOTAL SALARIES AND WAGES
	On Salaries		On wages					
	Male	Female	Male	Female				
Commercial castings and forgings; pipe and fittings:-						\$	\$	\$
Prince Edward Is.)	38	18	441	3	500	216,768	395,301	612,069
Nova Scotia.....)								
New Brunswick....	20	6	97	-	123	46,619	104,817	151,436
Quebec.....	325	77	1,784	44	2,230	632,098	1,467,661	2,099,759
Ontario.....	499	139	5,474	72	6,184	1,214,251	5,248,017	6,462,268
Manitoba.....	43	5	208	-	256	63,063	217,730	280,793
Saskatchewan....	12	1	36	-	49	16,602	30,814	47,416
Alberta.....	29	5	148	-	182	52,401	142,263	194,664
British Columbia..	48	8	310	-	366	86,833	327,206	414,039
CANADA.....	1,014	259	8,498	119	9,890	2,328,635	7,933,809	10,262,444

Cooking and heating apparatus:-

New Brunswick....	32	16	271	6	325	77,149	230,463	307,612
Quebec.....	84	26	479	1	590	147,321	367,405	514,726
Ontario.....	331	108	2,398	24	2,861	784,821	2,189,375	2,974,196
British Columbia.	10	3	44	1	58	16,182	32,677	48,859
Nova Scotia.....)								
Alberta.....)	5	-	30	1	36	8,945	22,190	31,135
CANADA.....	462	153	3,222	33	3,870	1,034,418	2,842,110	3,876,528

Table 6 - WAGE-EARNERS, BY MONTHS, 1935. (On the 15th of each month or the nearest representative date).

Months	Commercial castings and forgings; pipes and fittings			Cooking and heating apparatus		
	Male	Female	TOTAL	Male	Female	TOTAL
January.....	7,206	115	7,321	2,557	30	2,587
February.....	7,775	115	7,890	2,802	29	2,831
March.....	8,260	110	8,370	2,921	30	2,951
April.....	8,414	108	8,522	3,020	31	3,051
May.....	8,606	113	8,719	3,127	31	3,158
June.....	8,579	111	8,690	3,198	30	3,228
July.....	8,424	110	8,534	3,304	28	3,332
August.....	8,622	120	8,742	3,407	34	3,441
September.....	8,910	129	9,039	3,625	35	3,660
October.....	9,148	134	9,282	3,775	34	3,809
November.....	9,140	144	9,284	3,646	32	3,678
December.....	8,780	138	8,918	3,264	31	3,295
AVERAGE.....	8,498	119	8,617	3,222	33	3,255

Table 7 - FUEL AND ELECTRICITY USED, 1935.

Kinds	Unit of measure	Commercial castings and forgings; pipe and fittings		Cooking and heating apparatus	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal - Canadian ..	short ton	10,574	60,908	6,167	35,058
Imported ..	short ton	83,187	478,649	7,017	46,224
Anthracite coal	short ton	1,328	10,917	167	1,753
Lignite coal	short ton	1,522	5,271	3	32
Coke	short ton	8,290	87,659	955	9,235
Gasoline	Imp. gal.	30,764	7,204	10,230	2,072
Kerosene	Imp. gal.	13,453	2,065	537	99
Fuel oil	Imp. gal.	2,157,865	143,333	104,635	8,725
Wood	cord	3,552	16,463	2,081	7,851
Gas - Manufactured	M cu. ft.	6,897	4,394	4,033	3,349
Natural	M cu. ft.	64,851	27,723	3,748	1,743
Other fuel	xxx	...	4,489	...	...
Electricity purchased	K. W. H.	35,465,076	445,293	22,517,372	181,296
TOTAL	xxx	...	1,294,368	...	297,437
Electricity generated for own use	K. W. H.	755,000	...	50,000	...

Table 8 - POWER EQUIPMENT, 1935.

Kinds	Commercial castings and forgings; pipe and fittings		Cooking and heating apparatus	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Steam engines and steam turbines	30	2,385	8	775
Gasoline, gas and oil engines	22	435	4	235
Hydraulic turbines or water wheels	2	65	-	-
Total Primary Power Equipment	54	2,885	12	1,010
Electric motors run by purchased power	3,630	48,998	946	7,561
Total horse power installed	3,684	51,883	958	8,571
Electric motors run by power generated by above primary units	50	713	11	125
Total Electric Motors	3,680	49,711	957	7,686
Boilers	110	8,806	31	3,627

Table 9 - POWER EQUIPMENT SHOWING ORDINARILY IN USE SEPARATELY FROM IN RESERVE OR IDLE, 1935.

Kinds	Ordinarilly in Use		In Reserve or Idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
<u>Commercial castings and forgings; pipe and fittings:-</u>				
Steam engines and steam turbines.....	22	1,390	8	995
Gasoline, gas and oil engines.....	18	406	4	29
Hydraulic turbines or water wheels...	1	55	1	10
Total Primary Power Equipment.....	41	1,851	13	1,034
Electric motors run by purchased power.....	3,546	47,191	84	1,807
Total Horse Power Installed.....	3,587	49,042	97	2,841
Electric motors run by power generated by above primary units....	50	713	-	-
Total Electric Motors.....	3,596	47,904	84	1,807
Boilers.....	105	8,031	5	775
<u>Cooking and heating apparatus:-</u>				
Steam engines and steam turbines.....	6	525	2	250
Gasoline, gas and oil engines.....	3	55	1	180
Total Primary Power Equipment.....	9	580	3	430
Electric motors run by purchased power.....	942	7,481	4	80
Total Horse Power Installed.....	951	8,061	7	510
Electric motors run by power generated by above primary units....	11	125	-	-
Total Electric Motors.....	953	7,606	4	80
Boilers.....	28	3,337	3	290

Table 10 - MATERIALS USED, 1935.

Materials	Unit of measure	Commercial castings and forgings; pipe and fittings		Cooking and heating apparatus	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
<u>Iron -</u>					
Pig iron, all grades.....	long ton	50,670	1,086,218	14,596	325,908
Wrought iron bars.....	short ton	434	29,879	87	5,274
Wrought iron skelp.....	short ton	1,496	77,838	...	...
Iron castings of all kinds.....	short ton	3,007	207,292	412	49,163
<u>Steel, hot or cold rolled -</u>					
Steel castings.....	short ton	1,027	196,299	23	2,507
Ingots, blooms and billets.....	short ton	9,501	349,499	...	...
Bars and rods.....	short ton	21,141	1,009,394	188	12,615
Forgings.....	short ton	49	7,028	5	545
Plates.....	short ton	1,414	85,622	171	9,559
Shafting.....	short ton	256	25,880	12	928

Table 10 - MATERIALS USED, Continued.

Materials	Unit of measure	Commercial castings and forgings; pipe and fittings		Cooking and heating apparatus	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Sheets--Enamelling.....	short ton	478	41,082	2,463	194,708
Galvanized.....	short ton	897	89,378	775	61,017
Plain (black).....	short ton	1,045	62,719	4,591	305,196
Polished.....	short ton	254	15,446	764	69,459
Stainless.....	short ton	-	27	52	15,281
Skelp.....	short ton	74,185	2,349,510	...	...
Strip.....	short ton	258	19,498	7	1,295
Stampings.....	short ton	89	18,152	1	174
Structural shapes (channels, angles, etc.).....	short ton	2,147	165,065	59	3,877
Wire.....	short ton	1,769	99,784	60	4,539
Alloy steel.....	short ton	-	430,500	-	7,647
Scrap iron and steel of kinds.....	short ton	81,545	887,119	12,411	131,584
Other iron and steel (except finished parts).....	short ton	251	19,940	79	6,981
Other metals (including scrap)-					
Aluminium.....	lb.	166,393	28,377	94,587	21,823
Brass and bronze castings.....	lb.	585,545	86,407	120,644	27,889
Brass and bronze sheets, etc..	lb.	666,085	68,061	45,838	9,970
Copper sheets, bars, etc.....	lb.	738,144	53,384	313,943	67,018
Lead.....	lb.	166,922	7,646	4,786	394
Nickel.....	lb.	46,920	14,778	3,134	1,323
Tin.....	lb.	57,073	31,242	12,364	6,218
Zinc.....	lb.	5,058,894	203,605	4,200	264
Babbitt metals and solders.....	lb.	81,768	17,527	9,415	2,847
Other metals.....	..	-	29,641	-	4,638
Articles used for further manufacture -					
Parts for machines or vehicles	..	-	126,162	-	63,287
Iron and steel pipe, tubes and fittings.....	..	-	143,850	-	43,902
Bolts, nuts, rivets and screws..	..	-	138,230	-	83,980
Electrical goods, including motors.....	..	-	103,256	-	359,739
Frit for enamelling.....	..	-	10,821	-	113,055
Feldspar.....	short ton	479	8,922	183	2,632
Paints, oils and varnishes.....	..	-	79,446	-	16,391
Rubber and leather goods.....	..	-	35,802	-	25,206
Other articles of this class..	..	-	105,013	-	108,870
Other materials and supplies -					
Foundry coke (used in cupola; not for heat or power).....	short ton	34,538	367,915	6,912	83,406
Moulding sands.....	short ton	22,899	82,047	5,956	30,891
Core sands.....	short ton	35,461	73,000	764	2,573
Other foundry sands (sand-blast), etc.....	short ton	4,582	30,910	3,134	26,448
Starch.....	lb.	10,000	100	100	6
Plumbago.....	lb.	230,190	11,551	20,730	1,256
Other foundry facings.....	lb.	4,154,916	33,657	131,270	7,185
Patterns and models.....	..	...	27,489	...	4,299
Lumber.....	M ft.b.m.	2,681	90,242	4,861	99,829

Table 10 - MATERIALS USED, 1935 - (Concluded)

Materials	Unit of measure	Commercial castings and forgings; pipe and fittings		Cooking and heating apparatus	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
<u>Other materials and supplies - con.-</u>					
Firebrick.....		...	81,446	...	38,232
Fireclay.....	short ton	3,365	28,338	565	5,644
Cupola blocks.....		...	19,491	...	2,689
Core oil.....	imp. gal.	90,464	41,713	3,413	2,230
Core compound.....	lb.	540,614	24,626	...	158
Shipping containers.....	..	...	70,559	...	24,713
All other materials and supplies	..	...	1,113,190	-	857,701
TOTAL.....	..	...	10,687,919	-	3,354,963

Table 11 - PRODUCTS MADE IN THE CASTINGS AND FORGINGS INDUSTRY, 1935.

NOTE - Data given in this table cover only the output of firms classified to the Castings and Forgings Industry. Figures for the individual items do not represent the total output for Canada as in nearly every case there was also a production in other industrial groups. The (x) indicates that the figures are incomplete for this reason. Supplementary tables have been added in order to provide total production statistics for the individual items.

Products	Unit of measure	Commercial castings and forgings; pipe and fittings		Cooking and heating apparatus	
		Quantity	Selling value at works	Quantity	Selling value at works
			\$		\$
Boilers, heating and power, and parts (x).....		...	115,116	...	60,191
Bolts, nuts and rivets (x).	short ton	3,440	426,268	...	...
Commercial castings (not specified elsewhere -					
Aluminium (x).....	short ton	45	35,485	4	5,481
Grey iron (x).....	short ton	60,074	5,209,096	1,705	217,640
Malleable iron (x).....	short ton	16,041	2,007,962	...	20
Brass (x).....	short ton	265	127,917	1	619
Copper (x).....	short ton	10	4,448	...	...
Bronze (x).....	short ton	200	97,625	...	...
Chains (x).....	xxx	...	531,761	...	...
Cooking and heating apparatus -					
Furnaces, warm air (x)....	No.	656	33,328	14,012	1,010,775
Stoves and ranges (x).....	No.	2,903	72,991	185,739	6,531,841
Cooking plates and					
rangettes (x).....	No.	16,630	2,060	6,400	22,855
Water tank heaters (x)....	No.	2,320	13,818	13,152	131,381
Blowers for domestic					
furnaces (x).....	No.	421	16,361	1,082	34,511
Grate bars.....	short ton	667	66,634	50	6,234
Registers and grills, air.	xxx	...	77,697	...	45,247
Oil burners (x).....	No.	2,392	52,182	400	64,776
Radiators, heating (x)....	xxx	...	...	...	43,063
Steam traps.....	xxx	...	...	24,618	88,285

Table 11 - PRODUCTS MADE IN THE CASTINGS AND FORGINGS INDUSTRY, 1935 - Concluded.

Products	Unit of measure	Commercial castings and forgings; pipe and fittings		Cooking and heating apparatus	
		Quantity	Selling value at works	Quantity	Selling value at works
			\$		\$
Cooking and heating apparatus - Con.					
Stove parts	xx	...	72,767	...	416,117
Furnace parts	xx	...	22,635	...	34,468
Other heating and ventilating equipment..	xx	...	157,515	...	536,263
Engines and parts (x).....	xx	...	89,245	...	...
Forgings, (not specified elsewhere) (x).....	short ton	18,159	2,522,677	...	...
Hardware (x)	xx	...	224,584	...	...
Machinery and parts (x)...	xx	...	1,070,935	...	265,705
Pipe, tubing and fittings, iron and steel (x).....	xx	...	8,699,246	...	...
Plumbers' fittings, iron (other than pipe and fittings)	xx	...	167,629	...	...
Pumps (x)	xx	...	181,567	...	...
Sanitaryware, cast iron enamelled	xx	...	929,423	...	...
Tanks, steel plate and sheet (x)	xx	...	71,094	...	...
All other products including items reported by only 1 or 2 concerns	xx	...	3,603,325	...	504,130
Receipts from custom work and repairs	xx	...	2,015,442	...	41,378
TOTAL	xx	...	28,718,833	...	10,060,980

DIRECTORY OF FIRMS INCLUDED IN THE CASTINGS AND FORGINGS INDUSTRY, 1935.

NOTE - Iron foundries are marked (F). See also supplementary list at end of this report.

(a) Commercial castings and forgings; pipe and fittings.

<u>Names of Firms</u>	<u>Location of Plants</u>
<u>PRINCE EDWARD ISLAND</u>	
Parker, H. W. (F)	Georgetown
Stewart, Bruce, and Co. Ltd. (F)	6 Great George St., Charlottetown
<u>NOVA SCOTIA</u>	
Cumming, J. W., Mfg. Co. Ltd.	Glasgow St., New Glasgow
Dartmouth Iron Foundry (F)	42 Maple St., Dartmouth
Enamel and Heating Products Ltd. (F)	Station St., Amherst
Fleming Bros. (F)	1595 Barrington St., Halifax
Hillis and Sons, Ltd. (F)	Kempt Rd., Halifax

DIRECTORY OF FIRMS INCLUDED IN THE CASTINGS AND FORGINGS INDUSTRY, 1935 - Continued.

(a) Commercial castings and forgings; pipe and fittings - continued.

Names of Firms

Location of Plants

NOVA SCOTIA - Concluded

Lunenburg Foundry Co. Ltd. (F)
Matheson, I., and Co. Ltd. (F)
New Glasgow Foundry Ltd. (F)
Sydney Foundry and Machine Works, Ltd. (F)
Thompson Bros. Machinery Co. Ltd. (F)

Lunenburg
North Provost St., New Glasgow
New Glasgow
Pitt St., Sydney
Water St., Liverpool

NEW BRUNSWICK -

Abrams, John, Sons, Ltd. (F)
Courtenay Iron and Brass Foundry (F)
Dunbar Engine and Foundry Co.
McLennan Foundry and Machine Works, Ltd. (F)
Phoenix Foundry Co. (F)
St. John Iron Works, Ltd. (F)
Wallace Mfg. Co. Ltd. (F)

62 Foundry St., Moncton
Rothsay Ave., Saint John
Woodstock
Campbellton
126 Pond St., Saint John
Saint John
Winter St., Sussex

QUEBEC -

Belanger, O., Enrg. (F)

Bellefeuille et Freres

Bergeron, J. E. (F)
Boisclair, Antoine (F)
Bruleur Desro Star Enrg.

Canada Iron Foundries, Ltd. (F)

Canadian National Foundry (F)
Canadian Tube and Steel Products, Ltd.
Cote Bros. and Burritt
Crampton Foundries, Ltd. (F)
Crane, Ltd. (F)

Darling Bros. Ltd. (F)
Dominion Foundry Ltd. (F)
East End Foundry Co. Ltd. (F)
Engineering Products of Canada, Ltd.
Fonderie Despres (F)
Fonderie de Lacolle (F)
Fonderie Paquette (F)
Frenette, Emile

General Foundry, Ltd. (F)
La Compagnie F. X. Drolet (F)
La Compagnie Dussault et Lamoureux (F)

La Fonderie Beloeil, Enrg. (F)
La Fonderie Bourget, Enrg. (F)
La Fonderie Canadienne (F)
La Fonderie de Ste. Croix Ltee. (F)
La Fonderie de Joliette, Ltee. (F)
La Fonderie Legare (F)

2440 rue des Carrieres, L...
Montreal
1839 rue Notre Dame, Three
Rivers
1 rue St. Louis, La Tuque
St. Gabriel de Brandon
311 rue St. Georges, Three
Rivers
227 St. Maurice St., Three
Rivers
Grand'Mere
5765 Hamilton St., Montreal
1260 Conde St., Montreal
1971 Tansly St., Montreal
3800 St. Patrick St., Cote
St. Paul, Montreal
140 Prince St., Montreal
167 St. Hubert St., Pont-Viau
1990 LePailleur St., Montreal
6259 Notre Dame E., Montreal
Montmagny Station
Lacolle
30 St. Ignace, Laprairie
2720 rue Notre Dame Ouest,
Montreal
Windsor Mills
206 rue Dupont, Quebec
8 rue St. Hyacinthe, St.
Hyacinthe
Beloeil Station
Windsor Mills Est
374 rue St. Jacques, St. Jean
Ste. Croix
Joliette
48 Short St., Sherbrooke

DIRECTORY OF FIRMS INCLUDED IN THE CASTINGS AND FORGINGS INDUSTRY, 1935 - Continued.

(a) Commercial castings and forgings; pipe and fittings - continued.

Names of Firms

Location of plants

QUEBEC - Concluded.

La Fonderie de St. Anselme, Ltee. (F)	St. Anselme Station
La Fonderie Ouellet, Enrg. (F)	St. Leonard
La Fonderie de Thetford, Ltee. (F)	796 rue Notre Dame, Thetford Mines
La Fonderie Rigaud (F)	St. Anselme St., Rigaud
La Fonderie de Robertsonville Co. Ltee. (F)	Robertsonville
La Fonderie Roy (F)	Laprairie
Laperle, Louis, Enrg. (F)	St. Ours
Laroche & Frères	Pont Rouge
Lefebvre, Philibert et Fils (F)	St. Placide
Limoges et Freres (F)	42 Chateauguay, Hull
MacDonald Metal Products Co. Ltd. (F)	Taylor St. E., Waterloo
McOuat, T., and Son (F)	Lachute Mills
Montreal Foundry Ltd. (F)	1249 Conde St., Montreal
Monsarrat Machinery and Foundries Ltd. (F)	Riviere du Loup
Paquette et Frere (F)	11 rue St. Jean-Bte., Terrebonne
Paterson, William, & Co.	6940 Park Ave., Montreal
Peacock Bros. Ltd. (F)	290 St. Patrick St., Ville La Salle
Quebec Brass and Iron Foundry Co. Ltd. (F)	53 Commercial St., Levis
Rouleau, Ltee. (F)	Mont Joli
Savoie, Alonzo (F)	Ste. Marie de Beauce
Shawinigan Foundries, Ltd. (F)	Shawinigan Falls
Sorel Mechanical Shops Co., Ltd. (F)	King St., Sorel
Steel Company of Canada, Ltd.	4110 St. Ambroise St., Montreal
Terreau et Racine Ltee. (F)	137-143 rue St. Andre, Quebec
Trottier et Sauvageau	St. Casimir
Union Foundry Reg'd. (F)	45 St. Louis St., Granby
Viau, M. I., et Fils, Ltee. (F)	St. Jerome
Vilas, W. F., Co. Ltd. (F)	Cowansville
Walford, H. Ltd. (F)	2320 Aird Ave., Montreal

ONTARIO -

Acme Calk and Tool Co.	31 Cannon St. E., Hamilton
Algoma Steel Corporation, Ltd. (F)	Sault Ste. Marie
Anthes Foundry Ltd. (F)	64 Jefferson Ave., Toronto
Armstrong Foundry & Machine Shop, Ltd. (F)	Wellington St., Orangeville
Auto Specialties Manufacturing Co. (F)	904 Tecumseh Rd. E., Windsor
Barco Mfg. Co. of Canada, Ltd.	Devonshire Rd., Walkerville
Belleville Foundries, Ltd. (F)	111 Station St., Belleville
Bibby Foundry (F)	Beverly St., Galt
Bingley, W. & Son Ltd. (F)	42 William St., Cornwall
Bishop, T. G. (F)	King and Queen Sts., Kingston
Bond Engineering Works Ltd. (F)	Cor. Villiers and Munition Sts., Toronto
Bowmanville Foundry Co. Ltd. (F)	Scugog St., Bowmanville
Bradley Foundry (F)	Paris
Bredannaz, Louis, and Sons	156 Duke St., Toronto
Callander Foundry and Mfg. Co. Ltd. (F)	54 Crimea St., Guelph
Canada Foundries and Forgings, Ltd.	Queen St., Welland, and Major St., Welland
Canada Valve and Hydrant Co. Ltd. The	Holme St., Brantford
Canadian Blower and Forge Co. Ltd. (F)	Woodside Ave., Kitchener

DIRECTORY OF FIRMS INCLUDED IN THE CASTINGS AND FORGINGS INDUSTRY, 1935, Continued.

(a) Commercial castings and forgings; pipe and fittings - continued.

Names of Firms

Location of Plants

ONTARIO - Cont'd.

Canadian Car & Foundry Co. Ltd. (F)	Wilkins St., Brantford
Canadian General Electric Co. Ltd. (F)	1025 Lansdowne Ave., Toronto
Canadian Steam Boiler Equipment Co. Ltd.	20 McGee St., Toronto
Castings of Ottawa, Ltd. (F)	51 Booth St., Ottawa.
Cobalt Foundry (F)	Cobalt
Cooley, H. W., Machine and Arms Co.	King and Tremaine Sts., Cobourg
Corbet Foundry and Machine Co. Ltd. (F)	1064 1st Ave. W., Owen Sound
Cornwall Brass & Iron Foundries (F)	422 Sixth St., E., Cornwall
Coulter, Levi L. (F)	280 Main St., Weston
Cunningham & Son (F)	Berryman Ave., St. Catharines
Dart Union Co. Ltd.	11-17 Charlotte St., Toronto
Davidson Foundry (F)	16 Hamilton Ave., Ottawa
Denesha, A., and Sons (F)	610½ Pitt St., Cornwall
Devlin, C., and Son, (F)	274 Pembroke St. W., Pembroke
Diamond Calk Horseshoe Co.	27 Bathurst St., Toronto
Dixon Mfg. Co.	Birch St., Collingwood
Dominion Forge and Stamping Co. Ltd.	Windsor
Draft King Blowers	1960 Yonge St., Toronto
Ellinghausen, S. F. (F)	Walkerton
Eureka Planter Co. Ltd. The (F)	Winnett St., Woodstock
Fittings Limited (F)	135 Bruce St., Oshawa
Fleck, Alexander, Ltd. (F)	416 Wellington St., Ottawa
Fruit Machinery Co. Ltd. (F)	368 Front St., Belleville
Galt British Forge	202 Beverly St., Galt
Galt Malleable Iron Co. Ltd. (F)	Shade and Kerr Sts., Galt
Gartshore-Thomson Pipe and Foundry Co. Ltd. (F)	Stuart St., Hamilton
Gies, Philip, Foundry Ltd. (F)	36 Water St. S., Kitchener
Goderich Iron and Brass Foundry (F)	Victoria St. Goderich
Gough Engineering Co. Ltd. The	48 Market St., Hamilton
Green, G. Walter, Co. Ltd., The (F)	406 McDonnell St., Peterborough
Griffin Foundry Co. (F)	22 Huskisson St., Guelph
Grinnell Co. of Canada, (F)	2440 Dundas St., West, Toronto
Guelph Foundry Co. (F)	Wellington St. E., Guelph
Hall and Quick	39 Wentworth St., N., Hamilton
Hamilton Foundry Co. (F)	Ruth and Clinton Sts., Hamilton
Hampson, A. C. (F)	Walkerton
Hastings Foundry (F)	10 Pine St., Stratford
Hayden, Thos., and Son (F)	Cavan St., Port Hope
Hepburn, John T., Ltd., (F)	18-60 Van Horne St., Toronto
Holmes Foundry Co. Ltd. (F)	Exmouth St., Sarnia
Imbleau, H., & Sons (F)	Raglan St., Renfrew
Ingersoll Machine and Tool Co. Ltd.	King St. W., Ingersoll
International Malleable Iron Co. Ltd. (F)	200 Beverly St., Guelph
Involute Gear Co.	321 Howland Ave., Toronto
Jackson, Geo. H. Ltd.	Biggar Ave., Hamilton
James Bros. Foundry (F)	Perth (2 plants)
Kerr and Coombes Foundry Co. Ltd. (F)	67 Bay St. N., Hamilton
Kerr Engine Co. Ltd., The	Walker Rd. & Edna St., Walkerville
Kingsville Foundry (F)	Main St. W., Kingsville
Kinkade Burners	54 Wellington St., Stratford

DIRECTORY OF FIRMS INCLUDED IN THE CASTINGS AND FORGINGS INDUSTRY, 1935, Continued.

(a) Commercial castings and forgings; pipe and fittings - continued.

Names of Firms

Location of Plants

ONTARIO - Continued.

Lakeside Foundry, Ltd. (F)	Ft. Erie Rd., Port Colborne
Lawson, Thos., and Sons, Ltd. (F)	376 Wellington St., Ottawa
Lindsay Foundry, (F)	Victoria Ave., Lindsay
McCrae, John, Machine and Foundry Co. The (F)	81 William St. N., Lindsay
McIntyre & Taylor, Ltd. (F)	505 Queen St., W., Toronto
McKinnon Columbus Chain Ltd.	Ontario St., St. Catharines
Marshall, A. (F)	918 Assumption St., Windsor
Midland Engine Works (F)	Midland
Milton Foundry Machine and Tool Co.	Mill St., Milton
Moore Bros.	61 Nelson St., Toronto
Muskoka Foundry Ltd. (F)	Shier St., Bracebridge
National Iron Corporation Ltd. (F)	324 Cherry St., Toronto
New Standard Foundry Co. (F)	Foot of Jarvis St., Toronto
Niagara Foundry Co. (F)	747 Buttrey Ave., Niagara Falls
Northern Foundry and Machine Co. Ltd. (F)	457 Bay St., Sault Ste. Marie
Norsworthy, C., Co. Ltd. (F)	102 Center St., St. Thomas
Ontario Malleable Iron Co. Ltd. (F)	Oshawa
Orme's Ltd.	175 Sparks St., Ottawa
Page-Hersey Tubes, Ltd.	Guelph and Welland
Payette, P., Co. (F)	Nelson St. Penetanguishene
Port Hope Sanitary Mfg. Co. Ltd. (F)	Port Hope
Sandilands Valve Manufacturing Co. Ltd.	19 Concession St., Galt
Sandwich Foundry Ltd. (F)	400 Bloomfield Rd., Sandwich
Shantz, P. E., Foundry (F)	Fountain St., Preston
Shenton, H. E.	110 Alkman Ave., Hamilton
Slater, N., Co. Ltd.	20 Sydney St., Hamilton
Smith's Falls Malleable Castings Ltd. (F)	22 Bay St., Smith's Falls
Standard Foundry and Machine Co. (F)	N. Cayuga & Cedar Sts., Dunnville
Standard Foundry and Supply Co. Ltd. (F)	Walker Road, Walkerville
Standard Fuel Economizer Co.	2-6 Macaulay Ave. Toronto
Standard Sanitary Mfg. Co. Ltd. (F)	1000 Lansdowne Ave., Toronto
Standard Tube Co. Ltd.	Drew and Given Sts., Woodstock
Stark, Geo. S. (F)	Newmarket
Steel Company of Canada, Ltd.	River St., Gananoque
Sudbury Construction & Machinery Co. Ltd. (F)	149 Lorne St., Sudbury
Taylor Foundry Co. (F)	6 Plymouth Ave., Toronto
Tomlinson, T., Foundry Co. Ltd., (F)	60 Esplanade St. E., Toronto
Toronto Foundry Co. (F)	1884 Davenport Road, Toronto
Toronto Furnace Co. Ltd. (F)	35 Golden Ave., Toronto
Toronto Hardware Mfg. Co. Ltd. (F)	420 Dufferin St., Toronto
Tuttle & Bailey Mfg. Co. of Canada, Ltd.	Wood St., Fort Erie
Tweed Foundries, Ltd. (F)	Tweed
Union Foundry Co. (F)	Aubin Rd., East Windsor
Victoria Foundry Co. (F)	44 Booth St., Ottawa
Wabi Iron Works, Ltd. (F)	New Liskeard
Walker Metal Products Ltd. (F)	Kildare Rd., Walkerville
Warp Tension Governors, Ltd. (F)	303 Water St. W., Cornwall
Wagh Stove Works (F)	Almonte
Webber Machine Co.	15 Alcorn St., Toronto
Welland Iron and Brass Co. (F)	102 Niagara St., Welland

DIRECTORY OF FIRMS INCLUDED IN THE CASTINGS AND FORGINGS INDUSTRY, 1935,-Continued.

(a) Commercial castings and forgings; pipe and fittings - continued.

Names of Firms

Location of Plants

ONTARIO - Concluded

Wells Motors, Ltd. (F)
West's Company (F)
Whitelaw, Robert, Estate
Windsor Furnace Co. (F)
Woodside Bros. (F)
Worr Foundry Co. Ltd. (F)
Zenith Alloys

1245 York St., London
Norfolk and Union Sts., Simcoe
Main St., Woodstock
658 Dufferin St., Windsor
173 Manitou St., Port Arthur
163 Sterling Road, Toronto
Dundas St., Brantford

MANITOBA -

Anthes Foundry Ltd. (F)
Dominion Foundry Co. (F)
Vulcan Iron Works, Ltd. (F)
Winnipeg Foundry Co. Ltd. (F)

Saskatchewan Ave., Winnipeg
Watt & Union Sts., Winnipeg
Point Douglas Ave., Winnipeg
115 Robinson St., Winnipeg

SASKATCHEWAN -

East, John, Iron Works Ltd.
Moose Jaw Foundry (F)
Prince Albert Foundry Co. (F)
Springstein & Davidson Machine Shop (F)

121 Ave. C. N., Saskatoon
637 Ominica St. W., Moose Jaw
17th and Central Sts., Prince Albert
6th Ave. and Lorne St., Regina

ALBERTA -

Alberta Foundry and Machine Co. Ltd. (F)
Bolton, Garvie Co. (F)
Calgary Iron Works Ltd. (F)
Lethbridge Iron Works Co. Ltd.
Nichols Bros. Ltd. (F)
Norwood Foundry Co. Ltd. (F)
Riverside Iron Works Ltd. (F)
Standard Iron Works, Ltd. (F)

Smelter Ave., Medicine Hat
10334 - 108th St., Edmonton
410-418 9th Ave. E., Calgary
120 - 1st Ave. S., Lethbridge
10103 - 95th St., Edmonton
9111 - 111th Ave., Edmonton
803 - 24th Ave. S. E., Calgary
121st and 106th Ave., Edmonton

BRITISH COLUMBIA -

Acme Iron Works (F)
Anthes-Tait Foundry Ltd. (F)
Boundary Iron Works Ltd. (F)
Canada Chain and Forge Co. Ltd.
Canadian Sumner Iron Works Ltd. (F)
Cranbrook Foundry and Machine Shops (F)
Ellis, W. J., & Co. (F)
Leader Burners
Letson & Burpee Ltd. (F)
Lister Iron Works
Littler & Sons Iron Works (F)
McLean and Powell Iron Works (F)
Mainland Foundry Ltd., (F)
Nanaimo Foundry, c-o Joseph W. Dobeson (F)
Nelson Iron Works, Ltd. (F)
Pacific Foundry (F)
Progressive Engineering Works Ltd. (F)
Ramsay & Adams Foundry Co. Ltd. (F)
Reliance Foundry Co. Ltd. (F)

1210 Glen Drive, Vancouver (2 plants)
26th Ave. and Nanaimo Rd., Vancouver
Grand Forks
Granville Island, Vancouver
1214 Pender St. E., Vancouver
Cranbrook
Kamloops
323 Alexander St., W., Vancouver
172 Alexander St., Vancouver
302 West 3rd Ave., Vancouver
1375 Franklin St., Vancouver
392 - W. 2nd Ave., Vancouver
503 Powell St., Vancouver
Comox Road, Nanaimo
Hull & Front Sts., Nelson
101 - 1st Ave., E., Vancouver
360 - 1st Ave., W., Vancouver
435 Garbally Rd., Victoria
149 - 4th Ave. W., Vancouver

DIRECTORY OF FIRMS INCLUDED IN THE CASTINGS AND FORGINGS INDUSTRY, 1935.- Continued.

(a) Commercial castings and forgings; pipe and fittings - concluded.

<u>Names of Firms</u>	<u>Location of Plants</u>
<u>BRITISH COLUMBIA - Concluded.</u>	
Ross and Howard Iron Works Co. Ltd. (F)	Ft. Woodland Drive, Vancouver
South Vancouver Foundry (F)	719 E. 52nd Ave., Vancouver
Terminal City Iron Works (F)	1949 Franklin St., Vancouver
Vancouver Engineering Works Ltd. (F)	519 - 6th Ave. W., Vancouver
Victoria Machinery Depot Co. Ltd. (F)	343 Bay St., Victoria
	1750 Boundary St., Vancouver

(b) Cooking and heating apparatus

<u>NOVA SCOTIA -</u>	
Cook, H. S., and Co. (F)	Water St., Yarmouth
Thompson and Sutherland, Ltd. (F)	North Sydney
<u>NEW BRUNSWICK -</u>	
Enamel and Heating Products Ltd. (F)	Main St., Sackville
Enterprise Foundry Co. Ltd. (F)	Lorne St., Sackville
Record Stove and Furnace Co. Ltd. (F)	Lutz St., Moncton
<u>QUEBEC -</u>	
Belanger, A. Ltée. (F)	65 rue St. Jean-Baptiste, Montmagny
Domestic Gas Appliances, Ltd.	956 Ottawa St., Montreal
Gurney Foundry Co. Ltd., The (F)	96 Principal St., St. Laurent de Montreal
La Compagnie Bedard, Ltée. (F)	L'Assomption
La Fonderie de L'Islet Ltée. (F)	L'Islet Station
Vapor Car Heating Co. of Canada, Ltd.	65 Dalhousie St., Montreal
<u>ONTARIO -</u>	
Bastian-Morley, Ltd.	2382 Dundas St., W., Toronto
Beach Foundry, Ltd. (F)	Hinton Ave., Ottawa
Beaver Foundry and Furnace Works (F)	Harvey St., Tillsonburg
Bowman Gas Range Mfg. Co.	10 Ernest Ave., Toronto
Caloric Furnace Co. Ltd., The (F)	Alliston
Chatham Foundry (F)	400 Lacroix St., Chatham
Clare Bros. and Co. Ltd. (F)	216 King St., Preston
Doherty Mfg. Co., Ltd., The (F)	Sarnia
Dunham, C. A. Co., Ltd.	1523 Davenport Rd., Toronto
Empire Stove and Furnace Co. Ltd. (F)	2362 - 3rd Ave., E., Owen Sound
Findlays, Ltd. (F)	High St., Carleton Place
General Steel Wares, Ltd. (F)	Adelaide St., London
Gilson Mfg. Co. Ltd. (F)	York Rd., Guelph
Grimsby Stove and Furnace Ltd. (F)	John St., Grimsby
Guelph Stove Co. Ltd., The (F)	Victoria Rd., Guelph
Hall Foundry Co. Ltd., The	Sheffield St., Hespeler
Hamilton Machine Co.	11-13 Ferguson Ave., Hamilton
Harriston Stove Co. Ltd., The (F)	Harriston

DIRECTORY OF FIRMS INCLUDED IN THE CASTINGS AND FORGINGS INDUSTRY, 1935,- Concluded.

(b) Cooking and heating apparatus,
Concluded.

Names of Firms

Location of Plants

ONTARIO - Concluded.

Howard Furnace Co.	881 Yonge St., Toronto
Lennox Furnace Co. of Canada, Ltd.	Berryman Ave., St. Catharines
London Foundry, The (F)	683 Bathurst St., London
May Oil Burner of Canada, Ltd.	17 Elm St., Toronto
Moffats, Ltd., (F)	Denison Rd., Weston
Monarch Oil Burner Co.	701 St. Clair Ave., W., Toronto
Morash Foundry Co. (F)	Morrisburg
Myers Manufacturing Co. The	Dresden
New Idea Furnaces, Ltd. (F)	40 Thames St., Ingersoll
Pease Foundry Co. Ltd. (F)	Brampton
Premier Automatic Coal Burner	1620 Bloor St., W., Toronto
Ruud Manufacturing Co.	474 Bathurst St., Toronto
Sands Heater Co. Ltd.	430 Cannon St., E., Hamilton
Shaver Heating Specialties, Ltd.	331 Laurier Ave. W., Ottawa
Sheldons, Ltd. (F)	96 Grand Ave. S., Galt
Spencer Foundry Co. Ltd. (F)	Fox St. Penetanguishene
Stewart, James, Mfg. Co. Ltd. The (F)	Tecumseh St., Woodstock
Sturtevant, B. F., Co. of Canada, Ltd.	Middleton St., Galt
Superior Engineering Co. Ltd.	254 Adelaide St. W., Toronto
Teeswater Foundry Co. (F)	Clinton St., Teeswater
Timken Silent Automatic of Canada, Ltd.	Ottawa St. & Walker Road, Walkerville
Toronto Blower Co.	156 Duke St., Toronto
Trane Co. of Canada, Ltd.	King & Mowat Sts., Toronto
Western Foundry Co. Ltd. (F)	Wingham

ALBERTA -

Cone Water Heater Co.	914 - 20th St., E., Calgary
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BRITISH COLUMBIA -

Cook & Sons Foundry (F)	266 - 2nd Ave. E., Vancouver
Enamel & Heating Products, Ltd. (F)	2101 Government St., Victoria
Hi-Power Furnace & Stoker Co. (F)	Bridgeport St., Lulu Island
Kumfort Furnace Co. Ltd. (F)	5669 Tyne St., Vancouver
Vancouver Stove and Heater Co. Ltd. (F)	2100 - 11th Ave., W., Vancouver
Yorston Bros. Foundry (F)	1050 Boundary Rd., Vancouver

SECTION TWO - SUPPLEMENTARY TABLES GIVING TOTAL CANADIAN PRODUCTION FIGURES FOR CERTAIN COMMODITIES, REGARDLESS OF THE INDUSTRIES IN WHICH PRODUCED.

Table 12 - TOTAL PRODUCTION OF HEATING AND POWER BOILERS IN CANADA, 1934 and 1935.

Types	1934		1935	
	Number	Selling value at works \$	Number	Selling value at works \$
Heating boilers -				
Cast iron sectional hot water and steam.....	8,279	859,062	7,186	704,198
Steel firebox - locomotive type....	89	28,549	127	64,926
Horizontal return tubular.....	10	9,665	48	62,423
Steel water tube.....	9	4,753	10	30,854
Steel welded.....	302	115,612	291	112,397
Power boilers -				
Water tube - horizontal type.....	19	124,580	5	23,809
Water tube - vertical type.....	...	91,164	9	12,900
Water tube - bent tube type.....	2	16,000	25	142,997
Horizontal return tubular.....	72	81,001	48	55,768
Marine type - internally fired.....	3	14,052	3	13,249
Marine type - water tube.....	2	27,086	2	38,000
Steel firebox - locomotive type....	11	17,686	24	21,728
Fire tube - vertical type.....	142	49,823	140	56,535
Boilers, type not specified.....	90	159,906	...	196,112
TOTAL.....	...	1,598,939	...	1,535,896

Table 13 - TOTAL PRODUCTION OF STOVES IN CANADA, 1934 and 1935.

Kind	1934		1935	
	Quantity	Value \$	Quantity	Value \$
Coal and wood cooking stoves and ranges, all styles.....	74,291	2,904,462	83,201	3,232,965
Coal and wood heating stoves (in- cluding all heaters, circulators, Quebec, box, oak, Franklyn, globe or laundry.....	52,056	716,318	58,489	815,115
Combination for gas and coal.....	5,796	404,118	7,049	466,249
Combination for gas and electric....	7	560	6	300
Combination for coal and electric...	1,055	104,992	1,541	133,327
Gas cooking stoves and ranges (not combinations) including all styles with ovens.....	20,596	783,634	23,939	858,210
Electric cooking stoves and ranges (over 35 amperes) all styles with ovens.....	18,575	1,358,050	24,094	1,782,527
Electric rangettes, including cord attachment and oven as one unit....	5,561	88,357	1,748	33,181
Electric cooking plates and grills..	61,064	130,901	70,948	133,655
Gas cooking plates.....	3,987	30,521	3,768	10,867
TOTAL.....	242,988	6,521,913	274,783	7,466,396

Table 14 - TOTAL PRODUCTION OF DOMESTIC WATER HEATERS IN CANADA, 1934 and 1935.

Type	1934		1935	
	Number	Selling value	Number	Selling value
		at works		at works
		\$		\$
Electric water heaters -				
Circulating type.....	2,241	28,024	4,103	28,646
Immersion type.....	8,308	33,727	14,899	49,265
Storage tank type.....	1,236	24,108	1,807	35,542
Total Electric.....	11,785	85,859	20,809	113,453
Gas water heaters -				
Automatic type.....	1,005	51,305	946	62,185
Non-automatic type.....	13,758	85,029	12,473	74,103
Total Gas.....	14,763	136,334	13,419	136,288
GRAND TOTAL.....	26,548	222,193	34,228	249,741

Table 15 - TOTAL PRODUCTION OF IRON AND STEEL PIPE AND TUBING IN CANADA, 1934 and 1935.

Kinds	1934		1935	
	Short tons	Selling value	Short tons	Selling value
		at works		at works
		\$		\$
Cast iron soil pipe and fittings...	7,322	452,456	8,093	490,961
Other cast iron pipe.....	12,863	598,294	12,174	577,900
Other cast iron pipe fittings.....	4,192	594,888	5,032	623,557
Malleable iron pipe fittings.....	2,974	948,290	3,584	900,257
Wrought iron pipe.....	873	92,875	675	78,385
Wrought iron pipe fittings.....	172	39,040	14	2,755
Steel pipe.....	49,747	4,136,565	59,664	4,800,257
Steel pipe fittings.....	1,345	299,555	1,528	324,292
Steel tubing (seamless, boiler tubes, cold formed, etc.).....	9,951	1,096,245	10,560	1,446,693
TOTAL.....	89,439	8,258,208	101,324	9,245,057

Table 16 - TOTAL PRODUCTION OF IRON AND STEEL PUMPS IN CANADA, 1934 and 1935.

Kinds	Selling value at works					
	1934			1935		
	\$			\$		
Pumps - Piston, steam and electric..	287,498			464,802		
Centrifugal.....	455,159			341,609		
Hand.....	269,394			293,370		
Other.....	56,389			133,641		
TOTAL.....	1,068,840			1,233,422		

Table 17 - TOTAL PRODUCTION OF ENGINES IN CANADA, 1934 and 1935.

Kinds	1934		1935	
	Number	Selling value at works \$	Number	Selling value at works \$
Steam.....	...	62,413	...	73,519
Gasoline - Marine type, including outboard.....	2,489	459,042	3,791	592,364
Stationary type.....	78	12,365	72	13,120
Aeroplane, handcar and railway motor car.....	97	75,796	140	98,459
Diesel.....	...	...	...	87,234
Type not specified.....	...	68,600	...	73,980
Gas and oil.....	...	199,646	...	...
Total Engines (except Auto- mobile).....	...	877,862	...	938,676
Automobile engines.....	83,036	(Not available)	61,137	(Not available)

Table 18 - TOTAL PRODUCTION OF COMMERCIAL IRON CASTINGS (SOLD AS SUCH) IN CANADA, 1934 and 1935.

Kinds	1934		1935	
	Short tons	Selling value at works \$	Short tons	Selling value at works \$
Grey iron castings.....	65,253	5,436,252	87,914	7,087,169
Malleable iron castings.....	14,133	1,790,544	18,484	2,398,871
TOTAL.....	79,386	7,226,796	106,398	9,486,040

Table 19 - TOTAL PRODUCTION IN CANADA OF CERTAIN COMMODITIES AS SPECIFIED, 1934 and 1935.

Items	1934		1935	
	Quantity	Selling value at works \$	Quantity	Selling value at works \$
Furnaces, warm air.....No.	13,569	950,426	15,004	1,062,751
Radiators, heating - Direct or standing type Sq.ft.	...	1,027,726	4,137,759	1,101,332
Concealed type Sq.ft.	...	53,774	446,957	101,137
Oil burners - Atmospheric..... No.	6,504	147,691	4,436	100,773
Power..... No.	2,142	361,787	1,165	165,480
Registers and grills, air..... xx	...	104,526	...	122,944
Blowers for domestic furnaces.. No.	3,005	82,533	2,136	68,902
Range boilers, galvanized..... No.	67,161	440,102	63,457	466,519
Hardware-Carriage and saddlery. xx	...	539,191	...	294,061
Builders'..... xx	...	1,452,810	...	2,009,483
Other..... xx	...	1,136,512	...	1,397,746
Bolts,nuts and rivets..... xx	...	2,897,585	...	3,618,606
Chains - Auto..... xx	...	393,947	...	540,569
Other, including chain sprocket..... xx	...	828,766	...	875,703
Sanitaryware,cast iron, enamelled..... xx	...	914,489	...	929,423

SECTION THREE - SUPPLEMENTARY DATA COVERING ALL IRON FOUNDRIES, 1935.

As mentioned in the opening paragraphs of this report, the various manufacturing concerns are classified to certain industries in accordance with the nature of their main products. Under this scheme it is possible to include under the Castings and Forgings Industry only the foundries which were engaged chiefly in making miscellaneous castings to their customers' orders or in making such specific products as cast iron or malleable iron pipe and fittings, cast iron sanitaryware, stoves and other heating equipment, etc. Some other concerns operated customs foundries as a secondary part of their business and others maintained foundries to cast their own parts for agricultural implements, machinery, etc., which were the final products of their works. These latter foundries have been classified to other industrial groups.

A special study of all reports submitted to the Bureau indicates that in 1935 there were 330 operating iron foundries distributed across Canada as follows:- Ontario, 176; Quebec, 69; British Columbia, 33; Manitoba, 11; Nova Scotia, 15; Alberta, 10; Saskatchewan, 4; New Brunswick 10; Prince Edward Island, 2. These foundries used 115,633 long tons of pig iron, 196,747 short tons of scrap iron and 73,166 short tons of foundry coke during 1935.

The total production from these works was valued at \$82,258,156 in 1935 but, of course, only a part of this total was made up of iron castings or cast iron products. Machinery, farm implements, locomotives, stoves, boilers, engines, and a variety of other products were made by these concerns which operated foundries in connection with their business. The value of custom or "commercial" castings reported under the headings of "grey iron castings" or "malleable iron castings" amounted to only \$9,486,040; other castings are reported under specific items such as "cast iron pipe", "machinery parts," etc.

The following table gives summary statistics for the firms which operated iron foundries in 1935. The figures, of course, cover the entire manufacturing operations of these 340 establishments and it is not possible from the information at hand to determine the proportions which apply to the foundry divisions only. Data under the heading "commercial iron foundries" are for the foundries which reported a production for sale under the general headings of "grey iron castings" and "malleable iron castings" and figures under the heading "other iron foundries" are for foundries which reported under specific items such as stoves, pipe, machinery, farm implements, etc.

Table 20 - PRINCIPAL STATISTICS FOR ALL IRON FOUNDRIES, 1935.

	Commercial iron foundries	Other iron foundries	TOTAL ALL IRON FOUNDRIES
Number of foundries.....	209	121	330
Capital employed.....\$	53,886,441	135,464,330	189,350,771
Number of employees.....	11,583	20,069	31,652
Salaries and wages.....\$	11,754,671	21,602,518	33,357,189
Cost of materials at works.....\$	10,748,876	21,432,368	32,181,244
Selling value of products at works.....\$	30,318,856	51,939,300	82,258,156
Iron castings made for sale - short tons..	106,398	...	106,398
	\$ 9,486,040	...	9,486,040
Pig iron used..... - Long tons...	70,873	44,760	115,633
	\$ 1,524,803	931,811	2,456,614
Scrap iron and steel used.. - short tons..	112,335	84,412	196,747
	\$ 1,183,799	955,572	2,139,371
Foundry coke used..... - short tons..	45,307	27,859	73,166
	\$ 486,874	312,737	799,611

LIST OF CONCERNS IN OTHER INDUSTRIES WHICH OPERATED IRON FOUNDRIES, 1935.

NOTE - Foundries in the Castings and Forgings Industry are marked (F) in the directory for that industry given on pages 10 to 17 of this bulletin.

<u>Names of Firms</u>	<u>Location of Plants</u>
<u>NOVA SCOTIA -</u>	
Canadian Car & Foundry Co. Ltd.	Amherst
Hawbolt Gas Engines	Chester
Robb Engineering Works Ltd.	Amherst
Wheel & Foundry Co. Ltd.	New Glasgow
<u>NEW BRUNSWICK -</u>	
T. M. McAvity & Sons, Ltd.	Saint John
<u>QUEBEC -</u>	
Canadian Bronze Powder Works Ltd. incorporating Valleyfield Iron Works	Valleyfield
Canada Car & Foundry Co. Ltd.	Montreal, (2 plants)
Canadian Ingersoll Rand Co. Ltd.	Sherbrooke
Canadian National Railways	Montreal
Canadian Pacific Railway Co.	Montreal
Desjardins Limitee	St. Andre de Kamouraska
Dominion Engineering Co. Ltd.	Lachine
Fairbanks, E. & T., & Co. Ltd.	Sherbrooke
Hardware & Woodenware Ltd.	Coaticook
Jenkins Brothers Ltd.	Montreal
La Cie J. A. Gosselin Limitee	Drummondville
La Compagnie Jutras Ltee	Victoriaville
Matthew Moody & Sons, Co. Reg'd.	Co. Terrebonne
Montreal Locomotive Works, Ltd.	Montreal
Mitchell, Robert, Co. Ltd., The	Montreal
Plessisville Foundry, The	Plessisville
Singer Manufacturing Co., The	St. Johns
Superheater Co. Ltd., The	Sherbrooke
Vessott, S., Co. Ltd.	Joliette
Warden King, Limited	Montreal
<u>ONTARIO -</u>	
Babcock-Wilcox and Goldie-McCulloch, Ltd.	Galt
Barbour, Chas., & Sons	Meaford
Beatty Bros. Ltd.	Fergus
Bell, Robert, Engine & Thresher Co., The	Seaforth
Bertram, John, & Sons Co. Ltd., The	Dundas
Bissell, T. E., Co. Ltd.	Elora
Brown Boggs Foundry & Machine Co. Ltd.	Hamilton
Canada Iron Foundries, Ltd.	Fort William, Hamilton, and St. Thomas
Canada Machinery Corporation Ltd.	Galt
Canadian Allis Chalmers Ltd.	Toronto
Canadian Locomotive Co. Ltd.	Kingston
Canadian Ornamental Iron Co. Ltd.	Toronto
Canadian Westinghouse Co. Ltd.	Hamilton
Cockshutt Plow Company, Ltd.	Brantford
DeLaval Co. Ltd., The	Peterborough
Dominion Radiator & Boiler Co. Ltd.	Brantford and Toronto
Dominion Wheel & Foundries, Ltd.	Toronto and Cobourg
Fleury's, J., Sons, Limited	Aurora
Foster-Wheeler Limited	St. Catharines
Frost & Wood Co. Ltd., The	Smiths Falls
Goodison, John, Thresher Co. Ltd., The	Sarnia
Gurney Foundry Co. Ltd., The	Toronto
Hahn Brass Co. Ltd.	New Hamburg

LIST OF CONCERNS IN OTHER INDUSTRIES WHICH OPERATED IRON FOUNDRIES, 1935.-Concluded.

<u>Names of Firms</u>	<u>Location of Plants</u>
<u>ONTARIO - Concluded</u>	
Herrgot Co.	Mildmay
Imperial Iron Corporation Ltd.	St. Catharines
International Harvester Co. of Canada, Ltd.	Hamilton
Jardine, A. B. & Co. Limited	Hespeler
Kennedy, William, & Sons, Ltd., The	Owen Sound
Kondu Manufacturing Co. Ltd.	Preston
Leonard, E., & Sons, Ltd.	London
Link Belt Limited	Elmira and Toronto
Long, E. Limited	Orillia
Massey-Harris Co. Ltd.	Brantford and Toronto
Maxwells Limited	St. Mary's
McDougall, R., Co. Ltd., The	Galt
McKinnon Industries Ltd., The	St. Catharines
McLachlan, John, Estate of	Cannington
Meaford Steel Products Ltd.	Meaford
Mueller Ltd.	Sarnia
Napanee Iron Works Ltd.	Napanee
Oil Well Supply Co. Ltd.	Petrolia
Ontario Steel Products Co. Ltd.	Oshawa and Gananoque
Otis-Fensom Elevator Co. Ltd.	Hamilton
Plant, W. P., Estate of	Hastings
Pollard Manufacturing Co. Ltd.	Niagara Falls
Preston Woodworking Machinery Co. Ltd.	Preston
Renfrew Machinery Co. Ltd., The	Renfrew
Richardson, C., & Co. Ltd.	St. Mary's
Sawyer-Massey Ltd.	Hamilton
Spramotor Ltd.	London
Stephens-Adamson Mfg. Co. of Canada, Ltd.	Belleville
Taylor-Forbes, Ltd.	Guelph
Taylor, J. & J., Ltd.	Toronto
Tweed Foundries, Ltd.	Tweed
United Steel Corporation Ltd.	Welland and Toronto
Waterous Limited	Brantford
Waterloo Manufacturing Co. Ltd., The	Waterloo
Watson, John, Mfg. Co. Ltd., The	Ayr
White, George, & Sons, Ltd.	London
Whittaker Fireplaces	Windsor
<u>MANITOBA -</u>	
Canadian National Railways	Transcona
Canadian Pacific Railway	Winnipeg
Dominion Wheel & Foundries, Ltd.	St. Boniface
Manitoba Bridge & Iron Works Ltd.	Winnipeg
Service Station Equipment Co. Ltd.	Winnipeg
Strong Scott Mfg. Co. Ltd.	Winnipeg
Western Auto and Truck Body Works	Winnipeg
<u>ALBERTA -</u>	
Canadian Pacific Railway	Calgary
Coutts Machinery Co. Ltd.	Edmonton
Hay & Harding, Ltd.	Calgary
<u>BRITISH COLUMBIA -</u>	
Allard Machine Works, Ltd.	New Westminster
Easthope Brothers Ltd.	Vancouver
Grassick, Alex.	Vancouver
Victoria Brass & Iron Works Ltd.	Esquimalt
Vancouver Iron Works, Ltd.	Vancouver

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