

Published by Authority of the Hon. JAMES A. MacKINNON, M.P. 39-14-3-44
 Minister of Trade and Commerce
 Price -
 25 cents

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

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ANNUAL INDUSTRY REPORTMANUFACTURES OF THE NON-FERROUS METALS GROUPTHE WHITE METAL PRODUCTS INDUSTRY, 1942

Statistics given in this report cover the operations of firms in Canada which were occupied chiefly in (a) the manufacture of white metal alloys, such as babbitt, solders, type and type metal; (b) the refining of scrap to recover white metals, such as lead, tin and zinc, etc.; and (c) the manufacture of such articles as lead sheet, lead pipe, antimonial lead, collapsible tubes, slide fasteners, castings, metal foil, etc., in which the white metals or their alloys are the principal materials. In some establishments all three of these operations were carried on so it is not practical to make any subdivision of the industry.

Forty factories reported in this group in 1942 and the value of their output was \$25,325,076. This total was 9.47 per cent over the 1941 value of \$21,507,949.

Of the total output during the year under review, 76 per cent came from the 21 plants in Ontario, 19 per cent from the 12 plants in Quebec, and 5 per cent from 2 plants in Manitoba and 5 in British Columbia.

Capital employed in these works at the end of 1942 amounted to \$12,585,907 of which 58 per cent represented the value of land, buildings, plant and equipment, 27 per cent represented the value of inventories and stocks in process and 37 per cent the total of cash, accounts receivable, etc. The investment in works in Ontario was \$8,659,042; in Quebec, \$3,256,716 and in other provinces, \$670,149.

Employment was afforded to a monthly average of 2,583 people, including 445 on salaries and 2,138 on wages. Salaries for the year amounted to \$870,272 and wages to \$2,876,367, a total of \$3,846,639. In the previous year, the 2,343 workers were paid \$3,114,179 in salaries and wages.

Materials used in manufacturing, exclusive of fuel and electricity, cost \$13,328,759 delivered at the works. Included in these materials were about 29,000 tons of scrap metals at \$5,224,164; 24,141 tons of pig lead at \$2,413,106; 1,530 tons of pig tin at \$1,854,415; 679 tons of aluminium at \$276,709; 13,291 tons of zinc spelter at \$1,574,019, and other metals at \$723,882.

Production included 17,399 tons of refined metals (recovered from scrap) valued at \$2,585,094; 3,809 tons of solders at \$1,840,715; 2,075 tons of type and type metal at \$447,079; 1,997 tons of babbitt metal at \$1,053,157; 11,918 tons of die castings at \$4,287,215; 5,178 tons of lead pipe at \$539,870; 2,244 tons of lead sheets at \$558,630, and other lines, such as metal foil, slide fasteners, moulded shot, collapsible tubes, nickel-chrome tubing, etc.

Table 1 - PRINCIPAL STATISTICS, 1932-1942

Year	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$	\$	\$	\$	\$	\$
1932	24	4,434,722	532	621,420	62,970	1,935,507	3,498,049
1933	29	4,842,077	680	765,075	69,275	2,501,790	4,236,751
1934	51	4,947,914	790	840,698	78,141	3,138,319	5,227,047
1935	32	5,521,720	797	911,644	83,503	3,993,110	6,182,402
1936	55	5,882,190	894	1,017,732	99,860	4,356,439	6,905,041
1937	58	7,155,603	1,222	1,360,216	108,519	5,749,842	9,011,283
1938	35	7,197,855	1,252	1,434,089	109,787	4,506,881	7,660,254
1939	35	7,936,725	1,347	1,586,182	121,185	4,927,693	8,937,165
1940	41	9,961,580	1,671	2,040,629	162,872	7,941,052	12,599,215
1941	43	13,981,356	2,343	3,114,179	273,427	13,795,427	21,307,949
1942	40	12,585,907	2,583	3,848,639	314,986	13,328,759	23,325,076
Per cent change, 1942 from 1941 ....	..	-9.97	+10.24	+23.57	+15.38	-3.58	+9.47

NOTE: Profits or losses cannot be calculated from above figures as data are not available for general expense items, such as interest, rent, depreciation, taxes, insurance, advertising, etc.

Table 2 - PRINCIPAL STATISTICS, BY PROVINCES, 1941 and 1942

Year	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$	\$	\$	\$	\$	\$
<u>1941</u>							
Quebec ..	14	3,616,936	572	541,859	53,904	4,661,998	6,241,151
Ontario ..	22	9,670,046	1,906	2,469,152	200,341	8,565,245	14,046,852
Manitoba ..	2)						
British Columbia ..	)	694,374	65	103,168	19,182	768,184	1,019,946
CANADA ..	43	13,981,356	2,343	3,114,179	273,427	13,795,427	21,307,949
<u>1942</u>							
Quebec ..	12	3,256,716	253	438,282	36,369	3,187,525	4,392,044
Ontario ..	21	8,659,042	2,227	3,260,906	254,531	9,541,013	17,735,305
Manitoba ..	2)						
British Columbia ..	)	670,149	103	149,451	24,086	800,221	1,197,727
CANADA ..	40	12,585,907	2,583	3,848,639	314,986	13,328,759	23,325,076

Table 3 - CAPITAL EMPLOYED, 1941 and 1942 (On the last day of the year)

Province	Value of Inventories					TOTAL CAPITAL EMPLOYED
	Present value of land buildings, machinery, tools, etc.	Raw materials, fuel and other sup- plies on hand and stocks in process	Finished products on hand	Cash, bills and accounts receivable, etc.		
	\$	\$	\$	\$	\$	\$
<u>1941</u>						
Quebec	1,773,495	625,470	413,127	804,844	3,616,936	
Ontario	3,520,129	1,475,144	878,033	3,796,740	9,670,046	
Manitoba	202,836	163,848	92,504	235,186	694,374	
British Columbia)						
CANADA	5,496,460	2,264,462	1,383,664	4,836,770	13,981,356	
<u>1942</u>						
Quebec	1,495,430	334,655	434,904	991,727	3,256,716	
Ontario	2,817,068	2,017,173	426,419	3,598,382	8,659,042	
Manitoba	212,500	145,502	98,274	213,873	670,149	
British Columbia)						
CANADA	4,524,998	2,497,330	959,597	4,603,982	12,585,907	

Table 4 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1941 and 1942

Province	Average Number of Employees							TOTAL SALARIES and WAGES
	On Salaries	On Wages		TOTAL	Salaries	Wages		
	Male	Female	Male	Female				
<u>1941</u>								
Quebec	60	17	262	33	372	186,502	355,357	541,859
Ontario	178	125	1,092	511	1,906	587,893	1,881,259	2,469,152
Manitoba								
British Columbia)	13	7	44	1	65	40,556	62,612	103,168
CANADA	251	149	1,398	545	2,343	814,951	2,299,228	3,114,179
<u>1942</u>								
Quebec	53	18	176	6	253	166,725	271,557	438,282
Ontario	192	151	1,167	717	2,227	650,757	2,610,149	3,260,906
Manitoba								
British Columbia)	16	15	70	2	103	52,790	96,661	149,451
CANADA	261	184	1,413	725	2,583	870,272	2,978,367	3,848,639

White Metal

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Table 5 - WAGE-EARNERS, BY MONTHS, 1941 and 1942 (On the last work-day of each month)

Month	1 9 4 1			1 9 4 2		
	Male	Female	TOTAL	Male	Female	TOTAL
January	1,229	436	1,665	1,494	631	2,125
February	1,253	471	1,724	1,487	616	2,103
March	1,316	507	1,823	1,388	587	1,975
April	1,363	568	1,931	1,374	710	2,084
May	1,380	548	1,928	1,365	771	2,136
June	1,358	545	1,903	1,455	830	2,285
July	1,432	558	1,990	1,424	868	2,292
August	1,477	548	2,025	1,395	894	2,289
September	1,524	566	2,090	1,361	706	2,067
October	1,492	586	2,078	1,392	725	2,117
November	1,553	606	2,159	1,416	690	2,106
December	1,493	598	2,091	1,413	671	2,084
AVERAGE	1,398	545	1,943	1,413	725	2,138

Table 6 - HOURS WORKED PER WEEK, BY WAGE-EARNERS, 1941 and 1942 (In one week of highest employment overtime included)

Hours worked per week	Number of Wage-Earners					
	1 9 4 1		1 9 4 2		Male	Female
30 hours or less	37	29	119	104		
31-45 hours	145	87	152	116		
46 hours	79	9	61	23		
46-47 hours	105	62	52	40		
48 hours	219	55	198	28		
49-50 hours	85	119	106	111		
51-54 hours	169	84	196	91		
55 hours	40	8	78	38		
56-64 hours	309	104	363	194		
65 hours and over	422	57	438	242		
Total	1,610	614	1,743	987		
Total wages paid in selected week \$	44,005	8,895	53,358	17,570		

Table 7 - FUEL AND ELECTRICITY USED, 1941 and 1942

Kind	Unit of measure	1 9 4 1		1 9 4 2	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal - Canadian	ton	822	6,973	794	6,500
Imported	ton	1,996	17,571	2,635	25,429
Anthracite coal	ton	800	6,585	506	5,565
Coke	ton	1,772	12,531	1,192	13,866
Gasoline	Imp.gal.	26,104	7,673	20,586	6,375
Kerosene	Imp.gal.	4,068	712	1,843	492
Fuel oil	Imp.gal.	1,283,638	104,880	1,705,736	144,103
Wood	cord	20	163	7	47
Gas - Manufactured	M cu.ft.	94,782	28,806	102,284	25,877
Natural	M cu.ft.	25,879	9,967	40,771	19,201
Other fuel .....	...	...	81	...	5
Electricity purchased	K.W.H.	8,135,672	77,485	15,327,668	69,526
TOTAL .....	...	...	273,427	...	314,986

Table 8 - POWER EQUIPMENT, 1941 and 1942

	1 9 4 1		1 9 4 2	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Diesel engines -				
In use	1	7	1	7
Gasoline engines -				
In use .....	...	...	1	20
Electric motors operated on purchased power -				
In use	1,116	6,526	1,335	6,903
In reserve or idle	38	256	84	354
TOTAL	1,155	6,789	1,421	6,284
Stationary boilers -				
In use	2	210	8	465
In reserve or idle	3	240	6	43

Table 9 - MATERIALS USED, 1941 and 1942

Material	1 9 4 1		1 9 4 2	
	Quantity	Cost at works (x)	Quantity	Cost at works (x)
		\$		\$
METALS (Other than scrap) -				
Aluminium--Ingots	lb.	695,408	1,267,829	255,203
Other forms	lb.	1,059,064	89,953	21,506
Antimony metal	lb.	1,366,077	197,622	1,818,370
Antimony ore	lb.	11,044	539	...
Arsenic	lb.	...	49,358	3,659
Bismuth	lb.	...	25,979	29,203
Brass and bronze, all forms	lb.	817	275	38,355
Cadmium	lb.	243,717	256,900	347,725
Copper ingots and slabs ...	lb.	590,178	68,860	4,470,119
Die casting alloy	lb.	526,250	41,573	827,389
Lead, pig	lb.	39,903,256	1,979,635	48,281,959
Manganese metal	lb.	...	38,267	19,508
Nickel	lb.	300,610	88,012	117,244
Silver, fine	Troy oz.	...	244,869	102,108
Tin, pig	lb.	6,281,572	3,585,322	3,059,671
Zinc spelter	lb.	17,049,480	1,007,385	26,581,960
Other metals, except scrap, but including alloys	lb.	...	877,132	...
SCRAP METALS -				
Aluminium	lb.	7,352,993	653,972	4,522,083
Brass and bronze, all kinds	lb.	7,350,291	586,793	5,469,188
Copper, all kinds	lb.	10,200,476	1,029,784	9,669,323
Lead, battery plates	lb.	18,387,359	536,659	13,742,678
Lead, all other kinds	lb.	6,744,951	292,558	7,452,200
Zinc, all kinds	lb.	1,028,061	37,557	1,746,106
Babbitt	lb.	3,308,846	227,759	1,235,253
Solder	lb.	2,050,406	206,634	967,967
Tin	lb.	118,648	59,852	77,432
Type metal	lb.	2,051,598	107,143	2,157,237
				133,366

Table 9 - MATERIALS USED, 1941 and 1942 (Concluded)

Material	1941		1942	
	Quantity	Cost at works (x)	Quantity	Cost at works (x)
<hr/>				
Scrap Metals (Con.) -		\$		\$
Drosses	1b.	9,015,053	283,840	5,395,208
Other scrap, including scrap unspecified by kind	lb.	241,331	36,080	...
Shipping containers .....		...	81,169	...
All other materials .....		...	1,128,353	...
TOTAL .....		...	13,795,427	...
			13,328,759	

(x) Includes freight, duty, taxes, etc.

Table 10 - PRODUCTS MADE, 1941

NOTE: Data given in this table cover only the production by firms which have been classified to this particular industry, and do not necessarily represent the total output for Canada. The figure (1) indicates that the figures are incomplete and that production was also reported in other industries.

Product	Quantity lb.	Selling value at works (x)	
			\$
Babbitt metal	4,327,028	1,053,291	
Bars and ingots (from scrap and re-run from pig, etc.) -			
Aluminium (1)	1,856,457	355,762	
Brass, bronze and copper (1)	14,861,559	1,750,839	
Lead - Antimonial	17,329,126	993,712	
Other	8,047,734	461,461	
Tin	662,794	409,851	
Zinc	3,251,769	178,015	
Other, including alloys	14,929,067	1,730,335	
Castings (except die castings) -			
Aluminium (1)	43,452	25,269	
Brass and bronze (1)	1,689,134	487,509	
Lead (1)	2,081,693	262,090	
Zinc (1)	425,822	44,023	
Other, including nickel and cadmium anodes ...	1,102,297	560,075	
Castings, die, all kinds	7,743,671	767,363	
Lead pipe	4,443,440	477,017	
Lead sheets	13,523,238	1,096,384	
Lead traps and fittings	938,103	172,390	
Lead products, other	6,249,954	567,799	
Scrap and dross (sold)	702,731	38,396	
Solders	8,747,192	2,480,995	
Type and type metal	5,377,059	501,694	
All other products (xx) .....	...	6,893,174	
TOTAL .....	...	21,307,949	

(x) F.O.B. works, excluding sales tax and other excise duties.

(xx) Includes data for foil, collapsible tubes, slide fasteners, which were reported by only one or two companies in this industry, and for which, therefore, production figures cannot be shown separately.

Table 11 - PRODUCTS MADE, 1942

Product	Quantity	Selling value
	lb.	\$
Refined Metals (Reclaimed or Refined) -		
Aluminium	3,981,136	711,293
Lead (Antimonial)	21,917,615	1,330,468
Lead (Common)	7,667,068	444,508
Tin	64,511	38,739
Zinc	1,167,979	58,086
Alloys -		
Babbitt	3,994,034	1,053,157
Brass	3,551,905	351,524
Bronze	14,509,498	2,235,443
Copper, not elsewhere specified	4,615,829	658,814
Lead, not elsewhere specified	952,066	68,195
Solders	7,618,416	1,840,715
Tin, not elsewhere specified	13,216	5,401
Type and type metal	4,150,069	447,079
Zinc, not elsewhere specified	3,623,060	286,733
Other non-ferrous alloys .....	...	82,479
Castings -		
Die castings, all kinds	23,835,739	4,287,215
Other castings - Brass and bronze	1,734,736	604,812
Lead	1,254,582	90,333
Other .....	...	58,742
Lead products -		
Pipe	6,354,726	532,870
Sheets	4,487,412	358,630
Traps and fittings	1,036,192	183,297
Miscellaneous, including bullet wire, shot, etc. .....	...	1,237,318
Scrap and Dress -	1,045,168	33,392
All Other Products (x) .....	...	6,312,833
TOTAL .....	...	23,325,076

(x) Includes foil, collapsible tubes, zipper fasteners, etc.

Table 12 - PRODUCTION OF BABBITT, SOLDERS, TYPE AND TYPE METAL, 1935-1942

Year	Babbitt Metal		Solders of All Kinds		Type and Type Metal	
	Quantity	Selling value at works	Quantity	Selling value at works	Quantity	Selling value at works
		\$		\$		\$
1935	2,418,522	558,991	3,944,727	1,011,679	4,346,228	385,991
1936	2,662,706	475,544	4,420,555	1,075,694	3,906,174	377,673
1937	2,905,351	641,880	5,789,677	1,618,209	4,166,091	407,819
1938	2,229,444	455,742	5,032,225	1,201,999	3,635,344	355,636
1939	2,623,562	530,630	5,020,048	1,330,681	4,546,996	437,740
1940	3,211,629	846,507	6,433,586	1,708,063	4,342,916	415,531
1941	4,327,028	1,053,291	8,747,192	2,480,995	5,377,059	501,694
1942	3,994,034	1,053,157	7,618,416	1,840,715	4,150,069	447,079

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