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THE WHITE METAL ALLOYS INDUSTRY
1952

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NOTICE

The annual reports prepared by the Industry and Merchandising Division of the Bureau of Statistics are divided into 3 volumes, as follows: **Volume I**—The Primary Industries, including mining, forestry and fisheries; **Volume II**—Manufacturing; **Volume III**—Merchandising and Services. The volumes are made up of parts, and the parts in turn are subdivided according to the industries which they comprise.

Volume II consists of the following parts, the first two of which deal with manufacturing as a whole and the balance with the major manufacturing groups.

- I—General Review of the Manufacturing Industries, \$1.50
- II—The Manufacturing Industries, by Provinces
 - Section 1. Principal Statistics of Major Industrial Groups and Leading Industries, 50¢
 - Section 2. Principal Statistics of Individual Industries, 75¢
 - Section 3. Principal Statistics by Regional Distribution, 75¢
- III—Foods and Beverages
- IV—Tobacco and Tobacco Products
- V—Rubber Products
- VI—Leather Products
- VII—Textiles
- VIII—Wood and Paper Products
- IX—Printing Trades
- X—Iron and Steel Products
- XI—Transportation Equipment
- XII—Non-ferrous Metal Products
- XIII—Electrical Apparatus and Supplies
- XIV—Non-metallic Mineral Products
- XV—Products of Petroleum and Coal
- XVI—Chemicals and Allied Products
- XVII—Miscellaneous Manufactures

The present report belongs in Part XII, Non-ferrous Metal Products. It is punched to permit of filing in a ring binder along with others of the group. The reports in this group are:

- A—General Review, 25¢
- B—The Aluminum Products Industry, 25¢
- C—The Brass and Copper Products Industry, 25¢
- D—The White Metal Alloys Industry, 25¢
- E—The Jewellery and Silverware Industry, 25¢
- F—The Non-ferrous Smelting and Refining Industry, 25¢
- G—The Miscellaneous Non-ferrous Metal Products Industry, 25¢

THE WHITE METAL ALLOYS INDUSTRY

1952

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, zinc, etc.; and (c) the manufacture of products, such as lead sheet, lead pipe, antimonial lead, collapsible tubes, castings, metal foil, etc., in which the white metals or their alloys are the principal materials. In some establishments all three of these operations are carried on, so it is not practicable to make a subdivision of the industry.

Fifty-five factories reported in this group in 1952, and the value of their output was \$53,379,433. This total represented a decline of 19.1 per cent from the 1951 value of \$66,023,915.

Of the total output during the year under review, 76 per cent came from the 33 plants in Ontario, 18 per cent from the 15 plants in Quebec, and 6 per cent from the 3 plants in Manitoba and 4 in British Columbia.

Employment was afforded to a total of 3,238 people, including 653 on salaries and 2,585 on wages. Salaries for the year amounted to \$2,593,359 and wages to \$6,931,924, a total of \$9,525,283. In the previous year the 3,376 workers were paid \$9,512,342.

Materials used in manufacturing, exclusive of fuel and electricity, cost \$34,689,608 delivered at the works. Included in these materials were 47,683 tons of scrap metals at \$14,353,262; 18,389 tons of pig lead at \$5,985,575; 1,632 tons of pig tin at \$4,003,829; 2,975 tons of aluminum at \$1,866,349; 9,495 tons of zinc spelter at \$3,351,994; and other metals at \$2,614,661.

Production included 30,228 tons of refined metals (recovered from scrap) valued at \$11,369,187; 5,863 tons of solders at \$5,669,016; 3,780 tons of type and type metal at \$2,065,443; 1,269 tons of babbitt metal at \$1,156,232; die castings at \$7,675,814; 1,659 tons of lead pipe at \$843,409; 2,276 tons of lead sheet at \$1,034,702; and other lines, such as metal foil, moulded shot, collapsible tubes, etc.

Note: Data presented in this bulletin for 1952 under the heading of "Production" actually represent "Factory Shipments" and, therefore, are not exactly comparable with previous years.

TABLE 1. Principal Statistics of the White Metal Alloys Industry, 1948-1952

Year	Number of plants	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
			\$	\$	\$	\$
1948	47	3,319	6,981,935	688,113	35,312,992	49,641,787
1949	47	3,428	7,843,173	704,742	30,643,550	45,478,527
1950	48	3,557	8,620,347	792,080	35,161,532	52,100,390
1951	51	3,376	9,512,342	809,230	46,540,009	66,023,915
1952	55	3,238	9,525,283	767,984	34,689,608	53,379,433 ¹
Per cent change, 1952 from 1951	-	- 4.1	+ 0.1	- 5.1	- 25.5	- 19.2

1. The 1952 total represents the value of factory shipments. The inventory value of finished products at plant at end of 1951 amounted to \$2,924,000 and at end of 1952 to \$2,566,000.

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, 1951 and 1952

Province	Number of plants	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
			\$	\$	\$	\$
1951						
Quebec	14	418	1,145,266	77,946	9,833,940	12,676,873
Ontario	31	2,830	8,057,050	695,026	33,789,892	49,619,734
Manitoba	2	128	310,026	36,258	2,916,177	3,727,308
British Columbia	4					
Canada	51	3,376	9,512,342	809,230	46,540,009	66,023,915
1952						
Quebec	15	434	1,255,516	79,536	7,466,583	9,471,902
Ontario	33	2,654	7,866,335	648,013	24,827,610	40,760,704
Manitoba	3	82	198,236	22,573	1,395,784	1,771,860
British Columbia	4	68	205,196	17,862	999,631	1,374,967
Canada	55	3,238	9,525,283	767,984	34,689,608	53,379,433

TABLE 3. Products Made in the White Metal Alloys Industry, 1951 and 1952

Product	1951		1952	
	Quantity	Selling value	Quantity	Selling value
	lb.	\$	lb.	\$
Refined metals (reclaimed or remelted):				
Aluminum.....	14, 272, 931	3, 990, 365	14, 133, 414	3, 069, 891
Lead (antimonial).....	36, 446, 781	7, 307, 013	31, 278, 348	5, 419, 782
Lead (common).....	14, 678, 812	2, 742, 082	11, 410, 859	1, 995, 260
Tin.....	357, 859	449, 531	222, 853	274, 059
Zinc.....	3, 481, 638	777, 654	3, 410, 013	610, 195
Other metals.....	—	—	—	—
Alloys:				
Babbitt.....	3, 750, 738	2, 096, 546	2, 537, 457	1, 156, 232
Brass and bronze ingots.....	18, 202, 267	5, 883, 323	14, 260, 143	4, 487, 394
Copper alloys, not elsewhere specified.....	1, 142, 785	388, 291	1, 578, 429	674, 912
Lead alloys, not elsewhere specified.....	1, 514, 922	420, 973	1, 499, 216	467, 711
Solders.....	11, 866, 107	7, 403, 406	11, 726, 235	5, 669, 016
Tin alloys, not elsewhere specified.....	27, 655	25, 627	17, 327	14, 086
Type and type metal.....	8, 592, 650	2, 377, 489	7, 559, 473	2, 065, 443
Die casting alloys.....	16, 462, 162	3, 766, 654	9, 622, 605	1, 978, 276
Zinc alloys, not elsewhere specified.....	2, 777, 084	692, 873	2, 764, 809	602, 872
Other non-ferrous alloys.....	750, 569	198, 598	429, 808	119, 390
Castings:				
Die castings:				
Of aluminum-base alloy.....	1, 331, 998	1, 397, 734	1, 069, 865	815, 977
Of zinc-base alloy.....	15, 901, 211	8, 462, 876	12, 294, 573	6, 725, 478
Of other metal base.....	173, 979	121, 575	295, 443	134, 359
Other castings:				
Brass and bronze.....	656, 823	572, 632	498, 567	461, 013
Lead.....	440, 745	142, 817	238, 129	85, 574
Other (aluminum, magnesium, zinc, etc.).....	—	839, 078	—	1, 406, 808
Lead products:				
Pipe.....	4, 654, 227	1, 260, 456	3, 318, 046	843, 409
Sheets.....	5, 093, 889	1, 258, 184	4, 552, 827	1, 034, 702
Traps and fittings.....	1, 254, 931	537, 821	1, 156, 727	489, 408
Miscellaneous, including bullet wire, shot, etc.....	—	1, 205, 424	—	836, 320
Scrap and dross.....	—	74, 445	—	207, 013
All other products ¹	—	11, 580, 448	—	11, 734, 853
Total.....	—	66, 023, 915	—	53, 379, 433

1. Includes commodities which were made by only one or two firms in this industry, such as metal foil, collapsible tubes, lead oxides, etc.

TABLE 4. Materials Used in the White Metal Alloys Industry, 1951 and 1952

Material	1951		1952	
	Quantity	Cost at works ¹	Quantity	Cost at works ¹
		\$		\$
Metals (other than scrap) :				
Aluminum:				
Ingots:				
Primary or virgin	lb. 2, 182, 743	615, 003	2, 142, 409	522, 509
Secondary (from scrap)	" 441, 644	116, 171	428, 517	113, 874
Other forms	" 3, 989, 027	1, 274, 360	3, 378, 769	1, 229, 966
Antimony.....	lb. 1, 263, 307	618, 442	1, 188, 925	403, 187
Arsenic	" 99, 821	9, 582	68, 127	11, 062
Bismuth.....	" 35, 841	81, 677	39, 566	92, 007
Brass, and bronze, all forms	" 744, 697	163, 615	17, 587	7, 403
Cadmium.....	" 68, 393	135, 527	6, 226	15, 510
Copper ingots and slabs:				
Primary or virgin	lb. 152, 426	42, 508	162, 251	46, 311
Secondary (from scrap)	" 247, 244	51, 737	—	—
Die casting alloys.....	lb. 2, 746, 064	605, 726	5, 604, 800	1, 071, 615
Lead, pig:				
Pure:				
Primary or virgin.....	lb. 37, 992, 011	6, 937, 088	29, 146, 851	4, 631, 428
Secondary (from scrap)	" 1, 616, 723	276, 793	5, 038, 926	880, 213
Antimonial:				
Primary	lb. 2, 949, 361	709, 707	1, 760, 335	327, 570
Secondary (from scrap)	" 755, 754	134, 251	832, 213	146, 364
Magnesium	lb. 1, 877, 640	688, 421	1, 412, 736	648, 511
Manganese metal	" 20, 746	5, 289	21, 970	10, 863
Nickel	" 884, 600	504, 480	21, 735	13, 047
Silicon metal	" 51, 587	10, 255	53, 841	10, 818
Silver, fine	Troy oz. 11, 592	11, 626	15, 220	15, 542
Tellurium	lb. 672	1, 344	1, 237	1, 558
Tin, pig:				
Primary or virgin.....	lb. 4, 005, 975	5, 983, 206	2, 827, 305	3, 367, 742
Secondary (from scrap)	" 10, 416	8, 703	435, 809	636, 087
Zinc slabs, bars and ingots:				
Primary or virgin	lb. 32, 527, 292	6, 582, 454	18, 277, 228	3, 220, 188
Secondary (from scrap)	" 144, 553	24, 974	711, 815	131, 806
Other metals, except scrap, but including alloys.....	—	272, 938	—	267, 227
Scrap metals of all kinds:				
Aluminum	lb. 15, 735, 796	2, 920, 722	13, 076, 883	2, 118, 660
Babbitt	" 2, 224, 169	536, 691	2, 632, 039	687, 672
Brass and bronze	" 11, 096, 800	2, 518, 242	10, 020, 722	2, 035, 978
Copper	" 7, 475, 695	1, 822, 823	7, 808, 043	1, 882, 336
Lead:				
Battery plates and lugs	lb. 40, 333, 667	4, 471, 123	28, 543, 608	2, 827, 004
Dross.....	" 3, 192, 006	340, 603	2, 926, 220	287, 164
Other.....	" 13, 837, 598	2, 207, 051	13, 069, 460	1, 748, 672
Magnesium	lb. 6, 691	520	7, 849	706
Solder	" 1, 279, 164	455, 814	1, 684, 095	519, 913
Tin	" 77, 096	83, 776	70, 993	61, 239
Type metal.....	" 6, 331, 386	1, 339, 920	4, 503, 136	870, 077
Zinc.....	" 2, 114, 225	287, 175	1, 731, 263	168, 652
Zinc dross	lb. 4, 132, 892	508, 271	4, 291, 008	479, 730
Other scrap, including scrap unspecified by kind	—	964, 891	—	665, 459
Shipping containers.....	—	189, 662	—	188, 917
All other materials	—	2, 026, 848	—	2, 325, 021
Total	—	46, 540, 009	—	34, 689, 608

1. Includes freight, duty, taxes, etc.

TABLE 5. Production of Babbitt, Solders, Type and Type Metal, 1943-1952 (from all industries)

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
	pounds	\$	pounds	\$	pounds	\$
1943	3,826,064	984,920	8,223,498	1,948,163	5,996,676	547,878
1944	4,100,724	847,005	8,447,480	2,004,955	5,118,068	515,737
1945	4,409,033	950,407	7,156,668	1,814,494	6,563,071	686,094
1946	5,077,738	1,386,295	7,475,951	2,102,508	6,565,831	727,537
1947	6,511,921	1,961,280	10,153,577	3,104,615	7,761,868	1,376,819
1948	5,496,104	1,840,169	10,480,048	4,511,761	8,601,466	1,824,902
1949	3,630,232	1,278,156	9,473,573	4,412,506	7,812,131	1,768,434
1950	4,202,607	1,634,590	12,897,001	6,009,587	9,129,748	2,157,457
1951	4,061,472	2,287,717	11,873,951	7,409,623	8,592,650	2,377,489
1952	2,810,857	1,358,068	11,734,509	5,674,938	7,559,473	2,065,443

TABLE 6. Imports of Lead, Tin and Zinc, and Their Products, 1951 and 1952

Item	1951		1952		
	Quantity	Value	Quantity	Value	
		\$		\$	
Lead and its products:					
Lead in pigs and blocks	lb.	1,454,286	356,777	709,836	127,066
Lead, old and scrap.....	"	10,525	2,061	259,389	45,873
Lead in bars and sheets	"	3,744	1,411	4,433	1,988
Lead pipe	-	-	-	1,431	583
Lead capsules for bottles.....	-	-	189,512	-	141,186
Shot and bullets, lead	lb.	4,328	1,935	2,341	1,367
Manufactures of lead, n.o.p.....	-	-	192,858	-	214,325
Tin and its products:					
Tin in blocks, pigs or bars.....	cwt.	126,786	18,286,822	88,466	10,595,385
Tin foil.....	lb.	7,541	12,157	2,779	3,869
Collapsible tubes.....	-	-	33,455	-	73,324
Zinc and its products:					
Zinc in blocks, pigs, bars and rods, and zinc plates, n.o.p. cwt.		28,046	587,483	10,425	194,032
Zinc strip and sheets, and zinc plates for marine boilers	"	30,261	987,049	15,188	421,759
Zinc dust.....	"	4,444	121,993	4,847	113,957
Zinc slugs for discs, for the manufacture of seamless cups or shells for electric dry batteries	-	-	392,390	-	332,612
Zinc, manufactures of, n.o.p.	-	-	1,890,287	-	1,777,968
Alloys, n.o.p.:					
Babbitt metal in blocks, bars, plates and sheets	cwt.	234	21,536	407	24,720
Britannia metal, manufactures of, not plated.....	-	-	27,080	-	10,823
Chromium metal and tungsten metal, in lumps, powder, ingots, blocks or bars, and scrap of alloy metal containing chromium and tungsten, for alloying purposes	lb.	82,537	140,388	73,485	202,064
Metal alloy slugs, cast, with diamonds or diamond clips embedded therein, as for the mould, and metal alloy strip.....	-	-	101,304	-	43,097
Phosphor tin and phosphor bronze, in blocks, bars, plates, sheets and wire	lb.	1,932,419	1,263,839	1,639,457	1,072,158
Alloys of copper.....	-	-	254,388	-	295,995
Alloys of magnesium	-	-	112,907	-	136,742
Type and type metal:					
Type metal, in blocks, bars, plates and sheets	-	-	-	-	-
Type for printing, including chases, quoins and slugs of all kinds	-	-	178,095	-	158,288

TABLE 7. Exports of Lead and Zinc and Their Products, 1951 and 1952

Item	1951		1952	
	Quantity	Value	Quantity	Value
		\$		\$
Lead in pigs, refined lead	cwt. 2, 114, 722	38, 123, 412	2, 594, 809	41, 614, 984
Lead scrap	cwt. 28, 422	400, 706	104, 261	1, 163, 151
Lead pipe and tubing	cwt. 1, 400	33, 638	976	25, 312
Lead manufactures	—	68, 761	—	41, 584
Zinc spelter	cwt. 2, 922, 648	55, 423, 769	3, 337, 281	61, 309, 973
Zinc scrap, dross and ashes	cwt. 90, 199	1, 091, 970	72, 533	481, 752
Zinc, manufactures of	—	781, 175	—	419, 996

TABLE 8. Employees and Their Earnings in the White Metal Alloys Industry, by Provinces, 1951 and 1952

Province	Number of employees					Earnings		
	Office and supervisory		Production workers		Total	Office and supervisory	Production workers	Total
	Male	Female	Male	Female				
1951						\$	\$	\$
Quebec	92	22	290	14	418	437, 731	707, 535	1, 145, 266
Ontario	351	136	1, 816	527	2, 830	2, 069, 061	5, 987, 989	8, 057, 050
Manitoba.....	17	14	88	9	128	94, 460	215, 566	310, 026
British Columbia.....								
Canada	460	172	2, 194	550	3, 376	2, 601, 252	6, 911, 090	9, 512, 342
1952								
Quebec	106	24	295	9	434	404, 891	850, 625	1, 255, 516
Ontario	355	134	1, 665	500	2, 654	2, 067, 069	5, 799, 266	7, 866, 335
Manitoba.....	11	5	60	6	82	57, 784	140, 452	198, 236
British Columbia.....	10	8	50	—	68	63, 615	141, 581	205, 196
Canada	482	171	2, 070	515	3, 238	2, 593, 359	6, 931, 924	9, 525, 283

TABLE 9. Capital Investment in the White Metal Alloys Industry, 1948-1952

Year	Capital expenditures		Sub-total	Repair and maintenance expenditures		Sub-total	Total capital investment
	Construction	Machinery and equipment		Construction	Machinery and equipment		
	\$'000						
1948	129	567	696	182	583	765	1, 461
1949	186	885	1, 071	139	652	791	1, 862
1950	247	699	946	137	782	919	1, 865
1951	508	927	1, 435	145	577	722	2, 157
1952 ¹	692	971	1, 663	219	490	709	2, 372

1. Preliminary.

Directory of Firms in the White Metal Alloys Industry, 1952

Name of firm	Location of plant
Quebec:	
Canada Metal Company Limited, The.....	6265 Notre Dame St. E., Montreal
Eagle Smelting & Refining Works Limited.....	1095 Wellington St., Montreal
Eastern Die Casting Co. Reg'd.....	345 Decarie Blvd., Ville St. Laurent
Federated Metals Canada Ltd.....	1201 Mill St., Montreal
Harbour Smelting & Refining Co.....	153 Nazareth St., Montreal
Industrie Leadco, Limitée.....	5889 Des Erables St., Montreal
Kay Metal Refining Works Reg'd.....	301 Nazareth St., Montreal
Lawson Machine Works Ltd.....	651 Bridge St., Montreal
Montreal Die Casting Ltd.....	378 Chambly Rd., Longueuil
Montreal Materials Processing Co. Ltd.....	5270 Arnoldi St., Montreal
National Die Castings Co.....	503 Desjardins St., Montreal
Ouellette, O.J., Co.....	270 Vitre Est, Montreal
Richmond Machine Tool & Die Casting Co. Ltd.....	165 St. Zotique W., Montreal
Riverside Smelting & Refining Works, Ltd.....	639 Farm St., Montreal
Steel Company of Canada, Limited, The.....	2320 Notre Dame St. W., Montreal
Ontario:	
Barber Die Casting Co. Limited.....	Cor. Hillyard & Munroe Sts., Hamilton
Binkley, T., Die Casting Co.....	175 Samuelson St., Galt
Canada Foils Limited.....	7 Fraser Ave., Toronto
Canada Metal Co. Ltd., The.....	721 Eastern Ave., Toronto
Canadian Magnesium Products Ltd.....	Speedsville
Cohen, I., & Co. Ltd.....	594 Montreal St., Kingston
Dominion & Monarch Type Foundries.....	276 Parliament St., Toronto
Dominion Die Casting Ltd.....	Heinz St., Wallaceburg
Dominion Magnesium Limited.....	Haley
Federated Metals Canada Ltd.....	Don Rdwy. & Eastern Ave., Toronto
General Smelting Company of Canada, Ltd.....	Wilcox St., Hamilton
Great Lakes Die Casting Co. Ltd.....	875 Tecumseh Rd. E., Windsor
Granville Castings Limited.....	Merrickville
Hewitt Metals Corporation, Limited.....	1554 McDougall Ave. E., Windsor
Kester Solder Company of Canada Limited.....	51 Bruce St., Brantford
Lakeshore Die Casting Ltd.....	Queen Elizabeth Highway, Oakville
Last Minute Mfg. Co. Ltd.....	Wellington St. N., Thorold
Light Alloys Limited.....	Haley & Renfrew
Lintet Metal Industries Limited.....	21 Argyle St., Renfrew
Magic Foil of Canada, Ltd.....	First Ave., Ajax
Metals & Alloys Limited.....	Wicksteed Ave., Leaside, Toronto
Modern Containers Limited.....	95 Sterling Road, Toronto, and Bayview Road, Ottawa
Moore Type Foundry Limited.....	431 King St. W., Toronto
Newburg Die Castings.....	29A Birch Ave., Toronto
Pressure Castings of Canada Limited.....	67 Main St. S., Weston
Prince & Smith Type Foundry.....	113 St. Patrick St., Toronto
Schultz Die Casting Co. of Canada Limited.....	Wallaceburg
Spooner Copperine Company Limited.....	John St., Port Hope
Sun Tube Corp. of Canada Ltd.....	145 Spruce St., Ottawa
Toronto Refiners & Smelters Ltd.....	28 Bathurst St., Toronto
Victor Metal Containers Ltd.....	30 Bermondsey Rd., Toronto
White Metal Die Castings.....	112 Ossington Ave., Toronto
Manitoba:	
Canada Metal Company Limited, The.....	301 Chambers St., Winnipeg
Diecast Products Ltd.....	1085 Winnipeg Ave., Winnipeg
Union Metal Company Limited, The.....	654 McGee St., Winnipeg
British Columbia:	
Atlas Smelting & Refining Co. Ltd.....	321 East First Ave., Vancouver
Canada Metal Company Limited, The.....	1428 Granville St., Vancouver
General Metals Industries Ltd.....	8726 Barnard St., Vancouver
Great Western Smelting Co. Ltd.....	310 Prior St., Vancouver

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