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THE BRASS AND COPPER PRODUCTS INDUSTRY 1959



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PUBLICATIONS

The results of the annual Census of Industry are published by the Dominion Bureau of Statistics in a series of industry reports which are released each year as the compilations are completed. Reports for industries classified to the Non-ferrous Metal Products Major Group are listed below, along with current and annual publications of related interest. Similar reports are issued for other industries. A complete catalogue of publications of the Bureau is available on request from the Information Services Division, Dominion Bureau of Statistics, Ottawa, or from the Queen's Printer, Ottawa.

A - Annual

M - Monthly

Q - Quarterly

Catalogue number	Title	Price
41 - 202 41 - 204 41 - 206 41 - 215 41 - 211 41 - 214 41 - 218	Non-ferrous Metal Products — General Review (A) The Aluminum Products Industry (A) The Brass and Copper Products Industry (A) The White Metal Alloys Industry (A) The Jewellery and Silverware Industry (A) The Smelting and Refining Industry (A) The Miscellaneous Non-ferrous Metal Products Industry (A)	. 50 . 50 .50
41 - 007 31 - 201 31 - 001 65 - 004 65 - 007	Non-ferrous Scrap Metal and Secondary Non-ferrous Ingot (Q) per year General Review of the Manufacturing Industries (A) Inventories, Shipments and Orders in Manufacturing Industries (M) per year Trade of Canada — Exports (M) per year Trade of Canada — Imports (M) per year	1.00 2.00 4.00 7.50 7.50

Remittances should be in the form of cheque or money order, made payable to the Receiver General of Canada and forwarded to the Information Services Division, Dominion Bureau of Statistics, or to the Queen's Printer, Ottawa, Canada.

EXPLANATORY NOTES

This report is one in a series of about 130 publications which present the results of the 1959 Census of Manufactures. Most reports in this series refer to specific industries, but there are summary reports for Canada and the provinces and for major industry groups. An annual Census of Manufactures has been carried out by the Dominion Bureau of Statistics since 1916.

Industry statistics given in these reports refer to number of establishments, employees, salaries and wages, cost of materials, supplies, fuel and electricity, gross value of shipments, inventories and value added by manufacturing. Details of materials used and products shipped are also given. Descriptions of the principal industry statistics, with special reference to 1959 are as follows:

Period Covered

Firms are asked to submit figures for the calendar year, if at all possible, and most reports are on this basis. Financial year reports for periods differing from the calendar year are accepted in instances where the firms find it impossible to supply calendar year data from accounting records. However the data on employees, salaries and wages are requested on a calendar year basis in all cases.

Establishment

Data for the annual census is collected on an establishment basis. A firm with more than one plant is required to file a report for each plant. In most cases an establishment is a complete factory. Sometimes, however, a plant is divided into two or more establishments when it carries out operations classifiable to different industries and when separate accounting records are available. Usually the statistics for an establishment relate only to the manufacturing activities. Other activities such as construction at the plant by its own employees, wholesale or retail activities carried on at the plant location, etc., are not included. Plants engaged solely in repair work (except in the case of furniture, shipbuilding, boat building, aircraft and railway rolling stock industries) are not included but plants occupied in assembling parts into complete units are included.

Employees

Administrative and office employees include all executives and supervisory officials such as presidents, vice-presidents, secretaries, treasurers, etc., together with managers, professional and technical employees, superintendents and factory supervisors above the working foremen level and clerical employees. Working owners and partners are also included in this category.

Production and related workers include all other factory workmen whether paid on a monthly, weekly, hourly or piece-work basis. Working foremen doing work similar to that of the employees they supervise are included, as are maintenance, warehousing and delivery staffs. Employees on new construction work, in retail or wholesale operations, on outside piece work etc., are not included.

Production workers are reported by months, an average for the year being obtained by summing the monthly figures and dividing by twelve. This procedure is followed even though the plant did not operate in all months. Figures on employment refer to calendar years whether or not some establishments reported other data on a financial year basis.

Salaries and Wages

Salaries and wages refer to gross earnings of the employees described above, including salaries, wages, commissions, bonuses, the value of room and board where provided, deductions for income tax and social services such as sickness and unemployment insurance, pensions, etc., as well as any other allowances forming part of the employees' wages. Payments for overtime are included.

Salaries refer to amounts paid to administrative and office employees. Withdrawals by working owners or partners for normal living expenses for self and family are included but not their withdrawals for income tax. Wages refer to the amounts paid to production and related workers as defined above. Data on earnings refer to the calendar year whether or not some establishments reported other data on a financial year basis.

Cost of Fuel and Electricity

Figures for fuel refer to amounts actually used, (including fuel used in cars and trucks), not to purchases unless the quantities are the same. Values refer to the laid-down cost at the works, including freight, duty, etc.

Materials and Supplies Used

Figures represent quantities and laid-down cost values, at the works, of materials and supplies actually used during the year whether purchased from others or received as transfers from other plants of the reporting company. Amounts paid to other manufacturers for work done on materials owned by the reporting company are included. Returnable containers or any other items charged to capital account are not included. Fuels are not included. Goods bought from others or received as transfers from other plants of reporting companies for resale without further processing are not included. Maintenance and repair supplies not chargeable to capital account are included.

Factory Shipments

Factory shipments refer to shipments of goods made from own materials either in the reporting plant or by other manufacturers on the basis of a charge to the reporting plant for work done. All products and by-products shipped from the establishment are included whether for domestic use, export, or for government departments. Transfer shipments to sales outlets, distributing warehouses or to other manufacturing units of the reporting firm are included. Goods bought or received as transfers and resold without further processing are not included. Values are computed on f.o.b. plant or

plant warehouse basis, and do not include sales tax or excise duties. Values of containers not returnable are included. Amounts received in payment for work done on materials owned by others are included.

In a few industries such as shipbuilding, aircraft, etc., where work on principal products extend over a relatively long period, the value of production is recorded rather than the value of shipments. For those industries production is computed from the value of deliveries of complete units during the year plus the value of work done during the year on unfinished units less the value of work done in previous years on finished units delivered in the year under review.

Inventories

Values represent the book values of manufacturing inventories owned and held at the reporting plant. Figures include inventories held in warehouses or selling outlets which have been included with plant operations for purposes of reporting shipments.

Value Added by Manufacturing

Figures are computed from value of shipments plus or minus changes in inventories of finished goods and goods in process less cost of materials, fuel and electricity. This figure is sometimes referred to as net production.

Standard Industrial Classification

The Standard Industrial Classification Manual, prepared by the Dominion Bureau of Statistics, provides for 135 three-digit industries in the manufacturing sector, arranged in 17 major groups. Reporting establishments are classified or allotted to specific industries on the basis of the value of principal products made or shipped.

Short Forms

Between 1949 and 1957, in an effort to ease the reporting burden for smaller firms, a short form was used asking for the total value of shipments only or, in a few cases where losses of detail were significant, for quantities and values of principal products. For purposes of publication, missing data were estimated on the basis of appropriate ratios. In general the cut-off point for these short forms was set at \$50,000 value of shipments. About 40% of the total number of establishments reported on the short form and accounted for less than 3 per cent of the total value of shipments.

In 1958, in order to establish a new base year, the small firms were asked to report all items of principal statistics together with some detail on materials and products.

For the 1959 Census, the short form was used again, but further steps were taken to ease the respondents' burden. First, the general limit for short forms was raised to \$100,000 value of shirments. In addition, a new intermediate form was developed. This form is a shortened version of the long form in that most of the general questions were pared down and the detailed lists of materials and products were limited to the more important items. The general limits for firms in this category were set at between \$100,000 - \$500,000 value of shipments, but in the case of both the short and intermediate forms there were lower cut-offs for a number of industries in which the smaller firms accounted for a larger share of total shipments. On the other hand, limits were raised where this could be done without a significant loss of coverage. On most of the short forms for 1959, in addition to total value of shipments, data on principal products were requested. In a few industries, where loss of employment and earnings data were considered too large because of higher cut-offs, a question on total payroll was placed on the short form.

The intermediate and long forms provide complete data for the compilation of all elements of principal industry statistics and the details of materials and products. The one-page short form, although containing data on principal products and total value of shipments, does not request information on other elements of principal statistics such as value of inventories, materials, fuel and electricity and, in most cases, employment and salaries and wages, nor does it contain detailed data on volume and value of materials used. For purposes of compiling aggregates of principal statistics by industry and by geographic location, the missing data for each establishment were estimated for 1959 by using, in general, ratios based on the change in the value of shipments between 1958 and 1959. The proportion of the estimated data was generally less than 5 per cent of the total in each category of principal statistics.

The general request for the principal items of products on the short form for 1959 permitted a fairly complete compilation of the detailed quantities and values of commodity shipments. In the case of the detailed quantities and values of materials, fuel and electricity, however, and the monthly distribution of production workers, only the totals of data actually reported on the intermediate and long forms are contained in published reports and no attempt was made as in past years to estimate the generally small proportion of individual totals represented by detailed items omitted from the short forms.

The new approach has relieved an additional 12,000 establishments from filling out the regular long form. Establishments now receiving the short form number in excess of 20,000 and account for more than 54 per cent of the total number of establishments and a little more than 3 per cent of the total value of shipments.

¹ To arrive at the National Accounts concept of ''gross domestic product at factor cost'', it would be necessary to subtract also the cost of office supplies used, advertising, insurance and other goods and services obtained from other businesses. Data on these inputs are not collected on the annual Census of Manufactures. Value added figures for "The primary industries and construction" are published in D.B.S. publication 61—202, Survey of Production.

THE BRASS AND COPPER PRODUCTS INDUSTRY, 1959

This report covers the operations of brass foundries and other plants in Canada engaged chiefly in the manufacture of commodities (other than electrical equipment and wire cloth) from brass, bronze or copper. One hundred and eight foundries and 48 fabricating plants reported under this industry in 1959 and their factory shipments were valued at \$200,287,367. In 1958 the output value amounted to \$176,400,890 and in 1957 to \$182,396,315.

Products manufactured during 1959 by firms in this group included ingots, bars, rods, plates, sheets, tubing and such further fabricated lines as valves, kettles and tanks, plumbing supplies, gas and water meters, fire extinguishers, lightning rods, metal fasteners, hardware, etc. Copper wire and cable, lighting fixtures, switches and other such articles for electrical purposes have not been listed in this group but have been classified to the Electrical Apparatus and Supplies Industry, which is dealt with in a separate report. Wire cloth is covered in the Wire and Wire Goods Industry.

Brass foundry departments, which were run by iron foundries or by manufacturers of machinery, farm implements, etc., as a secondary or minor part of their operations, are not included in this group as, in such instances, separate reports were not required for the brass foundry divisions and all data

concerning the same were included in the industries of major importance.

A total of 156 plants were included in this group during 1959, of which 92 were located in Ontario, 37 in Quebec, 16 in British Columbia, 5 in Manitoba, 5 in Alberta and 1 in New Brunswick. Ontario factories accounted for 60 per cent of the total and Quebec plants for 33 per cent.

The number of employees in 1959 totalled 9,196 compared with 9,034 in 1958 and salaries and wages aggregated \$39,542,605 as against \$36,441,269 for the previous year.

Note: Due to lack of inventory data, figures for value added by manufacture prior to 1954 were obtained by subtracting the cost of materials used, including fuel and electricity, from the total value of factory shipments. In 1954 and 1955 the "Value added" adjustment incorporated the increase or decrease to shipments values resulting from changes in the value of inventories over the period. For these two years, the adjustments that were made used only the change in finished product inventory owned by manufacturers. Beginning with 1956 the calculation of the "Value added" figure was further adjusted to take into account the "Goods in process" as well as the finished goods held at plant or plant warehouse.

TABLE 1. Principal Statistics of the Brass and Copper Products Industry, Significant Years 1929-59, and by Provinces, 1958 and 1959

Year and province	Estab- lish- ments	Em- ployees	Salaries and wages	Cost of fuel and electricity at plant	Cost of materials at plant	Value added by manufacture ¹	Gross selling value of products ¹
	nur	nber			dollars		
1929 1932 1937 1939 1943 1946 1949 1955 1956	102 119 125 129 158 162 162 157 154 160	6, 232 3, 535 5, 094 5, 217 21, 899 10, 252 9, 389 8, 864 9, 220 8, 825	7,800,591 3,880,838 6,310,384 6,706,040 40,731,201 18,425,724 22,943,888 32,274,041 34,729,361 34,803,463	619,946 402,025 625,961 617,235 3,254,224 1,198,680 1,662,442 2,189,532 2,405,113 2,442,415	21, 118, 038 3, 949, 157 21, 498, 095 18, 961, 128 108, 330, 435 39, 983, 930 73, 045, 193 150, 395, 034 173, 601, 665 111, 347, 089	14, 377, 597 5, 242, 933 12, 329, 104 12, 533, 549 81, 403, 059 30, 874, 312 40, 700, 161 64, 086, 451 69, 497, 906 67, 852, 993	36, 115, 581 9, 594, 115 34, 453, 160 32, 111, 912 192, 987, 718 72, 056, 922 115, 407, 796 216, 500, 000 244, 096, 116 182, 396, 315
1958							
Quebec Ontario British Columbia Manitoba New Brunswick Alberta	39 90 15 5	2, 657 5, 613 154 132 478	10,966,571 22,836,458 703,170 464,503 1,470,567	876, 175 1, 533, 993 50, 326 48, 786 91, 431	40,500,122 63,560,558 740,142 1,226,414 1,365,504	20, 904, 435 42, 957, 173 875, 222 875, 867 2, 549, 296	62,559,617 105.842,600 1,683.588 2.180,039 4,135,046
Canada	155	9, 034	36, 441, 269	2, 600, 711	107, 392, 740	68, 161, 993	176, 400, 890
1959							
Quebec Ontario British Columbia Manitoba New Brunswick Alberta	37 92 16 5 1	2,566 5,544 380 159 547	11, 105, 847 24, 134, 394 1, 834, 243 576, 917 1, 891, 204	871, 339 1, 645, 843 174, 849 55, 122 103, 740	44, 264, 939 72, 437, 629 4, 503, 294 1, 578, 113 2, 065, 481	22, 420, 141 46, 541, 103 2, 427, 168 1, 435, 750 2, 938, 186	67,066,425 120,052,511 5,378,058 3,004,074 4,786,299
Canada	156	9, 196	39, 542, 605	2, 850, 893	124, 849, 456	75, 762, 348	200, 287, 367

¹ See note to text.

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 Sub-Groups, 1958 and 1959

	Estab- lish- ments	Em- ployees	Salaries and wages	Cost of fuel and electricity at plant	Cost of materials at plant	Value of factory shipments
	nur	nber		de	ollars	
1958						
Foundries making taps, valves, etc	14	2, 908	10,880,322	445, 249	10, 345, 037	29, 922, 174
Other brass and bronze foundries	95	4, 553	19, 278, 266	1, 694, 380	52, 556, 616	89, 274, 342
Fabricating plants (not foundries)	46	1,573	6, 282, 681	461,082	44, 491, 087	57, 204, 374
Totals	155	9, 034	36, 441, 269	2, 600, 711	107, 392, 740	176, 400, 890
1959						
Foundries making taps, valves, etc	14	2, 839	11, 379, 574	447, 181	11, 188, 827	30,753,660
Other brass and bronze foundries	94	4, 507	20, 165, 006	1, 722, 845	55, 753, 506	95, 164, 502
Fabricating plants (not foundries)	48	1,850	7, 998, 025	680, 867	57, 907, 123	74, 369, 205
Totals	156	9, 196	39, 542, 605	2, 850, 893	124, 849, 456	200, 287, 367

Note: In Table 2 data for foundries are only for the foundries which were occupied chiefly in making valves, plumbers' goods, castings, etc., as their regular line of goods for sale. Brass foundry departments, which were run by iron foundries or by manufacturers of machinery, etc., as a secondary or minor part of their operations, are not included as, in such cases, separate reports are not required for the brass foundry divisions. Ingot makers are included with foundries as also are the concerns which make brass and roll same into rods, sheets, cartridge discs, etc.

TABLE 3. Inventories, 1959

	Raw materials and supplies	Goods in process	Finished goods of own manufacture	Total			
		dol	llars				
Opening:							
Quebec	2, 346, 217	3, 721, 974	2, 309, 206	8, 377, 397			
Ontario	10,554,080	3, 809, 129	5, 308, 428	19, 671, 637			
Manitoba	175,779	38,659	101, 742	316, 180			
British Columbia	95, 515	51,767	84, 262	231, 544			
New Brunswick and Alberta	222, 341	513,668	281, 595	1,017,604			
Canada	13, 393, 932	8, 135, 197	8, 085, 233	29, 614, 362			
Closing:							
Quebec	2, 332, 842	4, 145, 224	2, 375, 950	8, 854, 016			
Ontario	11,963,687	3,677,024	6,012,597	21,653,308			
Manitoba	210, 596	62, 111	143, 201	415,908			
British Columbia	360, 993	642,564	1, 220, 718	2, 224, 275			
New Brunswick and Alberta	192,054	821,653	294, 718	1,308,425			
Canada	15, 060, 172	9, 348, 576	10, 047, 184	34, 455, 932			

⁽a) Book value of all manufacturing inventories owned and held at plant and plant warehouses.

(b) Beginning with 1954, information on the value of year-end inventory holdings at plant and plant warehouses is being collected as part of the annual Census of Industry. These data were formerly collected by a separate survey. The summarized results for the Brass and Copper Products Industry for the year under review are shown in the above table.

(c) The opening inventory for 1959 does not necessarily agree with the closing inventory for 1958 because of the addition of new plants, the transfer of plants to other industries and plants going out of business, etc. However, the value added figures for the previous year have not been recalculated to allow for the changes mentioned above.

TABLE 4. Materials Used in the Brass and Copper Products Industry, 1958 and 1959

		19:	58	1959	
Material		Quantity	Cost at plant	Quantity	Cost at plant
			\$		\$
Aluminum:					
Ingots	lb.	1,371,920	381, 135	585, 476	164, 364
Other forms	4.6	4, 868, 493 2, 803, 643	854, 261 1, 225, 456	3, 851, 406 3, 365, 551	809, 341 1, 403, 052
Antimony	4.6	11, 373	3, 296	8, 101	1,926
Brass and bronze:					
Ingots	4 6	22, 699, 038	5,681,354	17, 992, 059	4, 804, 779
Scrap Bars and rods	44	44, 456, 386	8, 715, 980 1, 368, 326	49,072,671	10, 469, 827 1, 548, 071
Plates, sheets and strip	44	1, 700, 522	762, 224	1, 232, 662	600, 606
Pipe and tubing	44	1, 170, 083	619,950	1,024,701	627, 576
Wire Other forms	41	822, 889 3, 506, 438	478,005 1,942,492	713, 308 3, 244, 622	394, 833 1, 896, 964
Copper:	-	000 100 005	50 555 050	200 040 001	20 204 200
Ingots, slabs, wire bars, etc	11	229, 103, 695	59, 557, 850	229, 943, 891	69,084,030 8,279,936
Pipe and tubing	4.4	578, 542	308, 260	424, 378	263, 786
Plates, sheets and strip	44	813, 869 416, 910	398, 675 183, 952	618, 218 402, 037	302, 635 175, 287
Other forms	**	126, 877	42,611	61,060	22, 340
Lead, all forms	7.4	1, 559, 869	192, 316	1,643,997	185, 191
Magnesium, all forms		60, 345	27, 492	33, 474	10, 924
Manganese metal	44	100, 505	30, 674	219,078	48, 651
Monel metal	44	53, 345	41,543	126,883	137, 582
Nickel	- 11	813.002	610, 462	473, 386	335, 392
Nickel-copper shot	4.4	10,633	7,627	6, 128	4,008
Nickel-silver, all forms	4.4	1, 311, 150	371, 635	1,053,165	309, 159
Tin all forms:					
Phosphor tin	44	124, 756 220, 319	124, 020 190, 805	122, 137 176, 910	120, 473 175, 815
		220,010	150,000	110,010	210,010
Zinc: Ingots and slabs	44	12,524,680	1,370,708	12, 784, 195	1,548,917
Other forms		12, 324, 000	454, 759	12, 104, 155	491, 642
Other non-ferrous metals			740,835		273, 729
Iron and steel:					
Pig iron	ton	3, 450	221, 277 108, 590	2, 615 4, 423	182,099 199,205
Other iron and steel		2,522	1, 282, 609	1, 123	2, 721, 171
Stainless steel:	11				
Plates, sheets and strip	lb.	663, 807 90, 996	608, 134	994, 711	822, 779 217, 140
Lumber	Lbd. #				
Foundry coke		779	99, 315 42, 668	985	123, 671 50, 247
Foundry cokeFoundry sands	ton	1, 267 14, 638	124, 684	11, 517	135, 863
Graphite	lb.	67, 370	17,870	65, 950	17, 477
Refractories	1170		76, 283		94, 458
Other materials ¹	161			4 0 0	
			9, 902, 173		14, 760, 539
Containers and packing materials	Mar.	* * *	1,071,397		1,033,971
Totals all materials			107, 392, 740		124, 849, 456

¹ No detailed information on materials used was collected from firms generally reporting value of shipments of less than \$300,000. The total value of materials used by these firms was \$3,564,252 and this amount is included in "Other materials".

... Figures not appropriate or not available.

TABLE 5. Products Made in the Brass and Copper Products Industry, 1958 and 1959

	19	58	1959		
Product	Quantity	Value of factory shipments	Quantity	Value of factory shipments	
		\$		\$	
Aluminum: Castings	1,069,785	995, 299 2, 018, 754	1,317,220	1,192,434 2,062,219	
Brass and bronze: Ingots ton Castings Scrap Other forms (excluding cartridge cases)1 "	11,688 12,668 770 30,024	6, 365, 369 10, 889, 583 272, 549 26, 378, 048	12,551 13,344 728 25,868	6, 782, 335 12, 760, 707 313, 465 23, 956, 212	
Copper sheets, wire rods, tubing, etc	101,732	70, 229, 615	111,735	89, 591, 823	
Fire extinguishers, hand-type	* * *	2, 385, 544		2, 234, 253	
Hardware		82, 749		86, 869	
Lightning rods and supplies		263,832		269, 761	
Plumbers' brass fittings		14, 085, 121		14,025,666	
Cast iron plumbing fixtures	* * *	208,614		417, 326	
Valves: Iron and steel body Brass and bronze, including radiator valves and traps		4, 043, 695 7, 240, 287		4, 359, 038 7, 537, 888	
Ships' fittings		464, 845		713, 747	
Steam boiler trimmings, including gauge cocks and water gauge mountings		58,000		26,000	
Amount received for repair work		1, 074, 438		1,826,402	
All other products including items made by only one or two concerns ²		29, 344, 548		32, 131, 222	
Totals, all products	***	176, 400, 890		200, 287, 367	

TABLE 6. Factory Shipments of Plumbers' Brass Fittings, 1958 and 1959 (From all industries)

Product	Value of factory shipments			
Floddet	1958	1959		
	doll	ars		
Bath waste and overflows	713,000	836, 000		
Faucets, sink, lavatory and bath, and their combinations	4, 471, 000	4, 274, 000		
Plumbing fixture trim	1,585,000	1,993,000		
Stops	1,180,000	1,092,000		
Traps	718,000	566,000		
Tub-fillers, showers and combinations of same	2, 145, 000	1,757,000		
Toilet tank fittings	1,632,000	1,870,000		
Other brass plumbing fixtures	6,363,000	6, 065, 000		
Totals	18, 807, 000	18, 453, 000		

¹ Includes bars, rods, sheets, strips, tubing, powder, etc.
² Includes railway car fittings, kettles, cosmetic containers, gauges, brewery distillation equipment, gas and water meters, cartridge cases, etc.

^{...} Figures not appropriate or not applicable.

Note: The data in this table are for the Brass and Copper Products Industry only and do not necessarily represent the total Canadian output of the items that are listed. Concerns in other industries may have made such articles as secondary products. The total production of plumbers' brass fittings and hand-type fire extinguishers from all industries is shown in Tables 6 and 7.

TABLE 7. Total Production¹ in Canada of Hand-Type Fire Extinguishers, 1950 - 59 (From all industries)

Year	Selling value at works	Year	Selling value at works
	\$		\$
1950	1,464,000	1955	2,890,000
1951	1,825,000	1956	2,912,000
1952	1,840,000	1957	2,649,000
1953	1,767,000	1958	2,386,000
1954	2,140,000	1959	2,234,000

¹ Factory shipments since 1952.

TABLE 8. Principal Statistics classified according to Type of Ownership, 1958 and 1959

Туре	Estab- lish- ments	Employees	Salaries and wages	Cost at plant of materials used	Selling value of factory shipments
1958	nun	nber		dollars	
Individual ownerships Partnerships Incorporated companies	30 13 112	117 107 8,810	332, 076 318, 939 35, 790, 254	458, 931 959, 489 105, 974, 320	989, 396 1, 497, 733 173, 913, 761
Totals	155	9, 034	36, 441, 269	107, 392, 740	176, 400, 890
1959				and the same of	
Individual ownerships Partnerships Incorporated companies	29 14 113	97 107 8,992	290, 727 322, 818 38, 929, 060	421,412 895,330 123,532,714	881, 528 1, 495, 651 197, 910, 188
Totals	156	9,196	39,542,605	124, 849, 456	200, 287, 367

TABLE 9. Principal Statistics of the Brass and Copper Products Industry in Canada, grouped according to Selling Value of Factory Shipments, 1958 and 1959

Туре	Estab- lish- ments	Employees	Salaries and wages	Cost at plant of materials used	Selling value of factory shipments
1958	nur	nber		dollars	
Under \$10,000 \$ 10,000 to \$ 24,999 25,000 '' 49,999 50,000 '' 99,999 100,000 '' 199,999 200,000 '' 499,999 500,000 '' 999,999 1,000,000 '' 4,999,999 5,000,000 and over Head offices	15 18 17 21 19 21 17 22 5	28 55 85 193 316 645 846 3,914 2,942	60, 852 155, 817 253, 267 690, 081 1, 107, 883 2, 382, 727 3, 182, 426 15, 170, 029 13, 354, 605 83, 582	33, 125 138, 419 255, 008 601, 933 1, 152, 133 3, 059, 167 6, 119, 858 25, 178, 816 70, 854, 281	109, 112 353, 747 620, 321 1, 505, 396 2, 703, 092 6, 856, 843 11, 702, 071 54, 859, 339 97, 690, 969
Totals	155	9,034	36, 441, 269	107, 392, 740	176, 400, 890
1959 Under \$10,000 \$ 10,000 to \$ 24,999 25,000 " 49,999 50,000 " 99,999 100,000 " 199,999 200,000 " 499,999 500,000 " 999,999 1,000,000 " 4,999,999 5,000,000 and over Head offices	14 15 24 16 23 13 22 21 8	19 45 132 102 370 323 1,139 3,286 3,769	43,608 94,056 400,709 398,524 1.340,466 1,273,502 4,380,619 13,800,005 17,721,124 89,992	21, 461 87, 811 322, 675 526, 605 1, 275, 801 1, 984, 440 7, 125, 777 27, 869, 688 85, 635, 198	75, 017 238, 370 871, 911 1, 231, 248 3, 169, 046 3, 851, 514 15, 584, 177 51, 922, 932 123, 343, 152
Totals	156	9, 196	39, 542, 605	124, 849, 456	200, 287, 367

TABLE 10. Employees and their Earnings in the Brass and Copper Products Industry, by Provinces, 1958 and 1959

	Employees					Earnings			
Province			uction kers	Total	Supervisory	Production	Total		
	Male	Female	Male	Female	Iotai	and office	workers	Iotal	
His die			number				dollars		
1958									
Quebec	483	160	1,960	54	2,657	3, 115, 549	7,851,022	10,966,571	
Ontario	934	395	3,873	411	5,613	6,456,173	16, 380, 285	22, 836, 458	
British Columbia	37	9	107	1	154	255,700	447, 470	703, 170	
Other provinces	76	36	456	42	610	543,688	1,391,382	1,935,070	
Canada	1,530	600	6,396	508	9,034	10, 371, 110	26, 070, 159	36, 441, 269	
1959									
Quebec	488	163	1,873	42	2, 566	3, 310, 230	7, 795, 617	11, 105, 847	
Ontario	919	373	3,869	383	5, 544	6,551,160	17, 583, 234	24, 134, 394	
British Columbia	75	22	282	1	380	550, 103	1, 284, 140	1,834,243	
Other provinces	94	27	529	56	706	631, 362	1,836,759	2, 468, 121	
Canada	1,576	585	6,553	482	9,196	11, 042, 855	28, 499, 750	39, 542, 605	

TABLE 11. Production Workers, by Months, 1959

Month	Establishments reporting monthly detail ¹			
	Male	Female		
January	5, 954	459		
Pe bruary	5, 958	481		
larch	6,038	471		
pril	6,111	458		
ay	6, 150	481		
une	6,155	482		
uly	6,017	488		
ugust	6, 118	494		
eptember	6,062	483		
october	5,979	432		
lovember	5, 910	428		
December	5, 732	406		
verage for establishments reporting monthly detail	6,016	464		
verage estimated for small establishments ²	537	18		
verage for all establishments	6,553	472		

¹ The number of production workers, by months, was collected only for establishments generally reporting value of shipments of \$300,000 and over.

² For establishments generally reporting value of shipments of less than \$300,000, no data on number of workers were collected. Average was estimated by using change in value of shipments to arrive at value of payroll which was then used in conjunction with estimated average earnings to arrive at number of workers.

TABLE 12. Capital and Repair Expenditures in the Brass and Copper Products Industry, 1955-59

	Capital expenditures			Repair and maintenance expenditures			Total capital
Year	Construction	Machinery and equipment	Sub-total	Construction	Machinery and equipment	Sub-total	and repair expenditures
	thousands of dollars						
1955	948	2,281	3,229	625	2,751	3,376	6,605
1956	4, 664	4,387	9,051	640	2,994	3,634	12,685
1957	4, 257	6,740	10,997	538	2,896	3,434	14,431
1958	458	5,710	6, 168	570	2,911	3,481	9,649
1959 ^p	1, 115	3,551	4,666	597	2,878	3, 475	8,141

P Preliminary figures.

TABLE 13. Imports into Canada of Brass and Copper and their Products, 1958 and 1959

	1958		1959	
Item	Quantity	Value	Quantity	Value
		\$		\$
Brass and its products:				
Brass in blocks, ingots or pigs cwt.	257	9, 418		
Brass scrap	7, 166	121, 314	1,654	39,681
Brass in bars or rods	27, 087	720, 145		
Brass ingots bars or rods			22, 228	689, 421
Brass in strips, sheets or plates "	34,662	1,092,848	38,740	1,319,533
Brass tubing	15, 161	895, 316	15,939	1,026,876
Metal caps, for use in the manufacture of electric batteries		51,752		56,754
Pumps, hand, brass, n.o.p.		21,696		18, 948
Valves, brass		4, 368, 000	***	4, 936, 620
Meters, brass, and parts, n.o.p.		479, 831		365, 276
Wire, brass, n.o.p. lb.	345, 130	130, 522	320, 825	145,056
Wire cloth, or woven wire of brass, n.o.p.		53, 476		74,650
Manufactures of brass, n.o.p.		11,809,591		12,824,190
Copper and its products:				
Copper, in blocks, pigs or ingots cwt.	2,700	1,050	2,090	64.865
Copper scrap, cathode plates of electrolytic copper for				
melting	29, 297	763, 328	75,680	2,054,307
Copper in bars or rods, for the manufacture of trolley, telegraph and telephone wires, electric wires, electric ca-				
bles and electrical conductors	53,037	1,507,262	35,354	1,237,086
Copper in bars or rods, n.o.p.	2,559	86,707	1,958	80, 839
Copper in strips, sheets or plates "	12,997	479, 101	9, 206	435, 204
Copper tubing	43,201	1,625,095	21,931	1,071,720
Copper rollers and stones, used in the printing of textile fabrics or wallpaper		85, 809		114, 297
Copper wire, n.o.p	210,440	109,557	50,239	31,410
Copper wire cloth or woven wire of copper		6, 184		9, 317
Copper, manufactures of, n.o.p.		1,131,034		1, 483, 485

^{...} Figures not appropriate or not applicable.

Note: "n.o.p." means "not otherwise provided for".

TABLE 14. Exports from Canada of Brass and Copper and their Products, 1958 and 1959

Thomas	19	58	1959	
Item	Quantity	Value	Quantity	Value
	cwt.	\$	cwt.	\$
Brass and its products:	- 4 19			
Brass scrap, dross and ashes	141,657	1,966,558	147,903	2,604,896
Brass in bars, ingots, rods, strips, sheets and plates	29,840	1,095,118	39,860	1,765,714
Brass tubing	11,232	556, 293	12, 469	623, 751
Brass valves		414, 596		412,801
Brass wire and bronze wire	889	70,447	3,408	248, 426
Brass manufactures, n.o.p.	• • •	162, 229		181,615
Copper and its products:				
Copper scrap, slag, skimmings and sludge	221,748	4,323,272	124, 726	3,009,50
Copper in ingots, bars, cakes, slabs and billets	4, 492, 755	111, 996, 370	4, 448, 739	130, 246, 946
Copper in rods, strips, sheets and plates	235, 764	7, 189, 757	253,382	8, 552, 76
Copper tubing	51,686	2, 398, 923	84,411	4, 340, 45
Copper wire and cable, insulated		2,075,450		2,464,03
Copper wire, bare		149,784		391,46
Copper wire screen	***	2, 599		5,02
Copper manufactures, n.o.p.		48,923		39, 42

^{...} Figures not appropriate or not applicable.

Note: "h.a.p." means "not otherwise provided for".

TABLE 15. Fuel and Electricity Used in the Brass and Copper Products Industry, 1959

Kind		Quantity	Cost at plant	
			\$	
Establishments reporting commodity detail:				
Bituminous coal:				
(a) From Canadian mines	ton	3,554	46,380	
(b) Imported	**	21,517	270,650	
Anthracite coal	44	10	254	
Coke	44	88	1, 303	
Gasoline (including gasoline used in cars and trucks) Imp	gal.	285,094	111,820	
Fuel oil including kerosene or coal oil	44	4,306,074	530,816	
Gas:				
(a) Liquefied petroleum gases	64	486, 198	63,486	
(b) Natural gas	Mcf.	358, 625	306,771	
Other fuel			31,071	
Electricity purchased	kwh.	121, 540, 921	1, 201, 940	
Steam purchased		***	67,833	
7-17-14-6				
Estimate for establishments for which no data were collected:2			010 500	
Cost of fuel and electricity		a + 7	218,569	
All establishments:				
Total cost of fuel and electricity			2,850,89%	

¹ Establishments generally reporting value of shipments of \$300,000 and over. ² Establishments generally reporting value of shipments of less than \$300 000. ... Figures not appropriate or not applicable.

Directory of Firms Included in the Brass and Copper Products Industry in Canada, 1959

Name of firm	Location of plant

(a) Foundries engaged chiefly in making brass valves, taps, plumbers' supplies, etc.

New Brunswick:	
McAvity & Sons, T., Ltd.	Rothesay Ave., Saint John
Quebec:	
Golden Gate Manufacturing Co. Ltd. Jenkins Bros. Limited	47 Duke St., Montreal 361 Youville St., Montreal St. Joseph St., Lachine 946 William St., Montreal
Ontario:	
Canadian Brass, Limited Emco Ltd. Galt Brass Company, Limited Morrison, James, Brass Manufacturing Co. Ltd. Mueller, Limited Prescott Brass Manufacturing Co. Ltd.	92 Laird Dr., Toronto 415 Dundas St., Galt Dundas St. E., London 471 Dundas St. Galt 276 King St. W., Toronto Clifford St., Sarnia Prescott Wallaceburg 918 Palmerston Ave. Toronto

(b) Firms engaged chiefly in operating brass and bronze foundries (Other than for valves, taps, etc.)

2	uehec:	
	Alliance Foundry & Pattern Works Reg'd Archambault Foundry Inc. Bouliane Brass Foundry	8677 - 10th Ave., Ville St. Michel 8016 Henri-Juillen St., Montreal 4270 Frontenac St., Montreal
	Canadian Bronze Powder Works Limited	
	Dauncey, P.A., Ltd.	118 Big Forks St. S., Sherbrooke
	Dominion Brass & Aluminum Foundry Co.	
	Eastern Brass Foundry, Limited	514 Harbour St., Montreal
	Empire Brass Foundry Limited	137 Nazareth St., Montreal
	Fonderie d'Art	221 Chemin Chambly, Longueuil
	Fonderie d'Art Vandevoorde	2000 Kent St., Montreal
	Gaulin, Athanase	St-Francois, Cté, Montmagny
	Laliberté, P.E. La Prairie Brass Aluminum Foundry	32, rue Fleurie, Quebec
		40 Rue Ste Rose, La Prairie 50 Carrier St., Lauzon
	Lauzon Brass and Aluminum Foundry Mark Hot Foundries Ltd.	Hebert St., Montreal North, Laval
	Miller's Brass Foundry, Reg'd.	791 Hertel St., Three Rivers
	Mitchell, Robert, Co. Limited, The	350 Decarie Blyd., Ville St. Laurent
	Montreal Bronze Limited	999 Delormier Ave., Montreal
	Noranda Copper and Brass Limited	Sherbrook St. E., Montreal
	Regent Brass Foundry	7399 St. Hubert St., Montreal
	Supreme Precision Castings Ltd.	550 Montée De Liesse, Montreal
	Union Screen Plate Company of Canada, Limited	72 Queen St., Lennoxville
	Verdun Brass & Aluminum Foundry Inc.	2430 rue Ville-Marie, Montreal
	Victory Brass & Aluminum Foundry	5244 Casgrain St., Montreal

Ontario:

ntario:	
Allied Foundries Ltd.	138 Willowdale Ave., Willowdale
Anaconda American Brass Limited	8th Street, New Toronto
Atkins & Hoyle Limited	69 Portland St., Toronto
Barnard Foundries, Ltd.	13 Dundas St. E., Brantford
Beare Brass Foundry	57 Grey St., Brantford
Bond Brass Limited	110 McArthur Ave., Eastview
Canadylet-Closures Ltd.	Barrie
Craig Bronze Company	330 Horner Ave., Toronto
Coulter Copper & Brass Company, Limited	115 Sumach St., Toronto and Scarboro
	1-11 Garfield Ave., London
Elmira Aluminum Specialties	Elmira
	64 Booth St., Ottawa
	366 Wilson St., Hamilton
Guelph Brass and Aluminum Co.	17 Division St., Gueiph
Ingot Metal Co. Ltd.	12 Vansco Rd., Toronto

Directory of Firms Included in the Brass and Copper Products Industry in Canada, 1959 - Continued

Name of firm

Location of plant

(b) Firms engaged chiefly in operating brass and bronze foundries (Other than for valves, taps, etc.) — Concluded

Ontario - Concluded:	
Industrial Fine Casting Ltd.	272 Geary Ave., Toronto
Kent, George (Canada) Ltd.	389 Horner Ave., Toronto
Kitchener Brass & Aluminum Foundry	388 Wendell Ave., Kitchener
Klassen Bronze	New Hamburg
Lawrence, T.C., & Sons Lofthouse Brass Manufacturing Co.	17 Jarvis St., Galt Whitby
Long Branch Foundry, The	3 Magnificent Rd., Toronto
May Foundry Co.	2029 Clark Ave., Niagara Falls
McKay Smelters, Limited	20 Charlevoix St., Ottawa
National Brass & Aluminum Foundry	117 St. Patrick St., Toronto
Neptune Meters, Limited	1430 Lakeshore Rd., Toronto
Niagara Bronze	497 Buttrey St., Niagara Falls
Non-Ferrous Castings Ltd. Prime Castings & Machine Shop	65 Frederick St., Toronto 48 Prospect Ave., New Market
Quality Brass Foundry	2401 Dixie Rd., Port Credit
Queen City Brass Foundry	28 Dalhousie St., Toronto
Rahn Metals Limited	Regina St., North Bay
Robinson, J., & Son	2 Hinton Ave., Ottawa
S.B. & A. Foundry Ltd.	550 York Rd., Guelph
St. Catharines Brass Works, Ltd.	16 Smith St., St. Catharines
St. Thomas Bronze Company, Limited	First St., St. Thomas 236 Welland Ave., St. Catharines
Stoermer Bell & Brass Foundry	Preston Bresleau Hwy., Bresleau
Sully Castings Ltd.	225 Centre St. E., Richmond Hill
Tallman, A.H., Bronze Company Limited	Cavell Ave., Hamilton
Toronto Fittings & Foundry	365 Bering Ave., Etobicoke
United Bronze Co.	R.R. 3, Kitchener
Usarco Ltd. Uxbridge Brass Fittings	363 Wellington St. N., Hamilton 144 Brock St. W., Uxbridge
Wagman, Z., & Son Ltd.	190 Edwin Ave., Toronto
Warren Alloy Canada Ltd.	165 Keil Dr., Chatham
Wilson Brass & Aluminum Foundries	5 Hamilton St., Toronto
Wilson & Cousins, Limited	240 Birmingham St., New Toronto
Windsor Brass Works, Limited	408 Hanna St. E., Windsor 1125 Westcott Rd., Windsor
windsor match Flate Co.	1125 Westcott Ru., Windson
Manitoba:	
Bay Bronze Co., The	1520 Wall St., Winnipeg
Northwestern Brass, Limited	13 Bury St., Winnipeg
Winnipeg Brass Limited	600 Clifton St., Winnipeg
Alberta:	
American Brass, Aluminum Foundry Ltd.	12530 - 123rd Street, Edmonton
Northwestern Brass, Limited	1609 – 24th Ave. E., Calgary
Paragon Bronze & Áluminum Products	511 - 3rd Ave. W., Calgary
British Columbia:	
Arts Aluminum & Frass Foundry Ltd.	9208 Hudson St., Vancouver
A-1 Pattern Shop & Brass Foundry Ltd.	16 West 3rd Ave., Vancouver
General Metals Industries	8726 Barnard St., Vancouver
Green, Wm. & Sons Brass Foundry	515 Pembroke St., Victoria
Hastings Brass Foundry Ltd.	236 Clark Drive, Vancouver
Hi-Way Foundry Lansco Foundries Ltd.	1604 Island Highway, Victoria 1865 W. Georgia St., Vancouver
Metro Brass & Aluminum Foundry Ltd.	3755 Keith St., South Burnaby
McPhail, Wm., & Sons (Canada) Ltd.	251 East Second Ave., Vancouver
North Shore Foundry Ltd.	234 Esplanade St. E., Vancouver
Pacific Bronze Co. Ltd.	244 Woodland Drive, Vancouver
Sumner Brass Foundry Ltd.	619 Bidwell St., Vancouver 1205 Glen Drive, Vancouver
Westcoast Metal Products	1205 GIGH Dilve, Valicouver

Directory of Firms Included in the Brass and Copper Products Industry in Canada, 1959 - Concluded

Name of firm

Location of plant

(c) Firms engaged chiefly in making fabricated articles (Not foundries)

Quebec:

Booth-Coulter Coppersmithing Co., Ltd.
Canada Wire & Cable Co., Limited
Canadian Lighting Protection
Cassidy and Maillard, Limited.
Fayle Coppersmith Works Limited
Guard-X Reg'd.
Kidde, Walter, & Company of Canada, Ltd.
Modern Metal Spinning Reg'd.
Ontario Metal Spinning Co.

997 Smith St., Montreal
Sherbrooke and Durocher, Sts., Montreal East
2540 Lyall St., Montreal
1156-58 Papineau Ave., Montreal
910 Smith St., Montreal
5875 Papineau Ave., Montreal
5500 Royalmount Ave., Montreal
4249 Frontenac St., Montreal
2279 Coupal St., Montreal

Ontario:

Booth, W.E., Co., Ltd.
Calumet & Hecla of Canada, Ltd.
Canadian Meter Company, Limited Central Electric Wire Ltd. C-O-Two Fire Equipment of Canada, Limited Dodd & Struthers Dominion Lighting Rod Company Domus Engineering Company
Durham Pure Copper Lightning Conductor
General Fire Extinguisher Corporation (Canada), Ltd. Guardian Manufacturing Ltd. Johnston Copper & Brass Limited Kurly Kate (Canada), Limited
Lauder Brass Company Limited
Linde Air Products Co. (Div. of Union Cabide Can., Ltd.)..... Metal Textile Corporation of Canada, Ltd.
Millman, W.H., & Sons.
Niagara Terrazzo Supplies Ltd. Ottawa Brass Mfg. Co.
Phillips Lightning Rod Co., Ltd. Phillips Electrical Co., Ltd. Pratt, Austin ... Pyrene Manufacturing Co. of Canada, Limited Ratcliff's (Canada) Limited Roto Cast Ltd. .. Shewell Pattern & Mfg., Co. Tonner, Gordon.
Toronto Coppersmithing Company Ltd.
United-Carr Fastener Company of Canada, Ltd.
United-Carr Fastener Company of Canada, Ltd. Wallaceburg-Singer Ltd.

12 Mercer St., Toronto London Milton Avenue Rd., Galt 1 North St., Perth 91 East Don Roadway, Toronto 1721 Moy Ave., Windsor Mill St., Dundas 330 Geary Ave., Toronto Queen St., Durham Queen St., Durham 978 St. Luke Rd., Windsor 10 Brock St., Brockville 11 New St., Toronto 42 Gladstone Ave., Toronto 186 Adelaide St. W., Toronto 805 Davenport Rd., Toronto 126 Catherine St. N., Hamilton 243 College St. Toronto 243 College St., Toronto 316 Second Ave., Niagara Falls 542 Wellington St., Ottawa
32 Osborne Ave., Toronto
King St., Brockville
125 Berkeley St., Toronto
91 East Don Roadway, Toronto
Yonge Street, Richmond Hill
721 Factorn Ave. 721 Eastern Ave., Toronto 450 Upper Sherman St., Hamilton Oxford St., Richmond Hill 80 Knox Ave., Toronto 37 Forsythe St. S., Oakville 231 Gage Ave. N., Hamilton Wallaceburg

Manitoba:

 574½ Minto St., Winnipeg Wawanesa

Alberta:

Canadian Meter Co.
Winter's Metal Spinning Works

9919-65th Ave., Edmonton 4303-17th Ave. S.E., Forest Lawn

British Columbia:

Ellett Copper & Brass Co., Ltd.
Northern Machine & Mfg. Co., Ltd.
Western Copper Mills Ltd.

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