

CATALOGUE No. 23

41-227

ANNUAL



FEB 11 1965



METAL STAMPING, PRESSING AND COATING INDUSTRY

1962

ANNUAL CENSUS
OF MANUFACTURES

Published by Authority of
The Minister of Trade and Commerce

DOMINION BUREAU OF STATISTICS
Industry Division

February 1965
6521-811

Price: 50 cents



SYMBOLS

The following standard symbols are used in Dominion Bureau of Statistics publications:

- .. figures not available.
- ... figures not appropriate or not applicable.
- nil or zero.
- amount too small to be expressed.
- ° preliminary figures.
- revised figures.

METAL STAMPING, PRESSING AND COATING INDUSTRY

1962

Data presented in this report under the heading of Metal Stamping, Pressing and Coating Industry reflect implementation of the revised Standard Industrial Classification (S.I.C.) and the New Establishment Concept which are being used by the Dominion Bureau of Statistics in its compilation of industry statistics—see items "Standard Industrial Classification" and "Establishment" in the Explanatory Notes section of this report. For statistical purposes the industry titled Metal Stamping, Pressing and Coating Industry in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in manufacturing sheet metal products such as metal stampings for automobiles and for purposes such as bottle caps, heel caps, metal lath and metal boxes. Also included are establishments primarily engaged in manufacturing pressed metal products such as kitchen utensils, hospital and similar utensils and containers. This industry also includes establishments primarily engaged in coating metal and metal products, such as vitreous enamelware, galvanizing and electroplating except plating with precious metals (Industry 382). It also includes establishments primarily engaged in manufacturing tin cans and other tinware, and sheet metal products such as metal awnings, heating ducts, roofing and eaves trough. Establishments primarily engaged in tinsmithing and sheet metal work on construction projects are classified in Industry No. 421—Special-Trade Contractors. Establishments primarily engaged in making enamelled bathroom fixtures such as bath tubs and basins are included in Industry No. 309—Miscellaneous Metal Fabricating Industries.

The introduction of the final stage of the establishment concept in the Annual Census of Manufactures has resulted in certain changes and necessitated some adjustments to the statistics. The major change in this industry was the inclusion in 1961 of establishments primarily engaged in custom electroplating, other than plating with precious metals, and custom anodizing. Refer to the Explanatory Notes section of this report for a more detailed explanation.

TABLE 1. Principal Statistics - Manufacturing Activity,¹ 1957-61
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Year	Estab- lish- ments	Employees						Cost of fuel and elec- tricity ⁴	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴
		Production and related workers ⁴		Administrative and office employees ³		Total ⁴					
		Number	Wages	Number	Salaries	Number	Salaries and wages				
	No.		\$'000		\$'000				\$'000		
1957	372	13,925	51,005	4,288	20,729	18,213	71,733	3,326	155,294	286,424	..
1958	392	13,436	51,975	4,177	21,178	17,613	73,153	3,362	161,596	307,973	141,787
1959	391	14,065	58,104	4,350	23,499	18,415	81,603	3,532	179,540	333,054	154,389
1960	414	14,415	60,511	4,707	26,081	19,122	86,592	3,696	166,581	337,473	165,313
1961	436	14,208	61,758	4,376	23,218	18,584	84,975	3,862	203,300	374,353	168,578

See footnotes following Table 3 A. also Standard Industrial Classification item in Explanatory Notes (par. 4).

TABLE 1 A. Principal Statistics - Manufacturing Activity and Total Activity,¹ 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Year and province	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and elec- tricity ³	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁴		Total employees ⁷		Total value added ⁸
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1961													
Newfoundland	2	9	15	25	3	231	445	181	11	11	15	43	208
Prince Edward Island	1												
Nova Scotia	2												
New Brunswick	4	11	23	43	8	328	520	123	11	11	19	94	211
Quebec	127	4,337	9,302	18,027	1,162	46,805	96,980	49,893	49	226	5,387	23,719	51,651
Ontario	291	9,178	19,856	39,661	2,938	130,087	239,165	107,202	86	356	12,859	59,648	111,784
Manitoba	28	777	1,629	2,966	146	6,677	13,637	7,058	8	32	1,057	4,428	7,724
Saskatchewan	10	199	419	778	40	2,934	4,905	1,850	11	11	276	1,161	2,034
Alberta	23	336	652	1,327	69	6,309	10,540	4,481	4	14	517	2,151	5,156
British Columbia	54	708	1,430	3,587	237	13,508	24,642	9,902	12	54	1,026	5,358	12,543
CANADA	542	15,555	33,327	66,417	4,603	206,878	390,834	180,689	164	692	21,156	96,603	191,311
1962													
Newfoundland	2	34	75	103	11	458	839	370	11	11	48	180	425
Prince Edward Island	1												
Nova Scotia	4												
New Brunswick	5	12	22	38	7	254	425	179	11	11	21	91	285
Quebec	131	4,833	10,464	20,971	1,200	55,694	105,444	48,699	46	206	6,051	28,201	50,295
Ontario	315	10,564	22,529	46,398	3,362	152,018	273,545	121,191	103	433	14,359	68,813	126,353
Manitoba	28	814	1,702	3,161	156	6,769	13,701	7,023	8	27	1,141	4,844	7,523
Saskatchewan	9	282	595	1,152	42	3,532	5,887	2,290	-	-	372	1,595	2,574
Alberta	28	449	893	1,818	80	7,557	12,938	5,343	9	35	617	2,674	6,047
British Columbia	59	805	1,691	4,267	258	16,408	27,180	10,497	9	37	1,114	6,155	11,226
CANADA	582	17,793	37,971	77,909	5,117	242,688	439,956	195,592	181	749	23,723	112,553	204,726

See Table 2 and footnotes following Table 3 A. also Standard Industrial Classification item in Explanatory Notes (par 4).

TABLE 1B. Principal Statistics classified by Size Groups based on Shipments of Goods of Own Manufacture, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and elec- tricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
1961													
Under \$10,000	26	15	21	28	14	44	158	100	15	34	22	39	115
\$ 10,000 to \$ 24,999	45	67	109	162	26	276	839	541	44	134	90	196	544
25,000 " 49,999	71	201	374	619	87	839	2,506	1,585	45	171	262	807	1,626
50,000 " 99,999	66	430	846	1,420	133	1,539	4,769	3,095	28	151	540	1,883	3,198
100,000 " 199,999	89	987	2,033	3,238	318	4,474	12,261	7,469	21	133	1,284	4,560	7,773
200,000 " 499,999	118	2,541	5,464	9,035	771	16,189	38,264	21,187	11	69	3,314	13,002	24,622
500,000 " 999,999	54	1,676	3,651	6,107	477	19,909	37,768	17,976	—	—	2,258	9,908	19,246
1,000,000 " 4,999,999	61	5,803	12,302	23,766	1,635	70,913	134,127	62,063	—	—	7,924	34,903	66,933
5,000,000 and over	12	3,835	8,527	22,042	1,144	92,695	160,142	66,672	—	—	5,241	29,882	67,305
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	221	1,422	(51)
Totals	542	15,555	33,327	66,417	4,603	206,878	390,834	180,689	164	692	21,158	96,603	191,311
1962													
Under \$10,000	28	13	17	29	13	50	172	108	25	40	19	43	113
\$ 10,000 to \$ 24,999	49	56	97	167	36	286	865	545	48	168	73	203	556
25,000 " 49,999	60	202	375	639	79	742	2,263	1,439	48	193	250	793	1,524
50,000 " 99,999	79	455	917	1,654	158	1,803	5,598	3,641	32	156	573	2,135	3,777
100,000 " 199,999	98	1,026	2,088	3,876	346	4,980	13,987	8,663	23	148	1,335	5,393	9,240
200,000 " 499,999	120	2,636	5,602	9,310	722	16,309	38,753	21,962	2	18	3,443	13,574	24,171
500,000 " 999,999	65	2,358	5,165	9,376	566	21,158	44,237	23,128	3	28	3,021	13,542	23,721
1,000,000 " 4,999,999	68	6,202	13,234	25,566	1,828	78,758	147,700	68,652	—	—	8,419	38,254	73,360
5,000,000 and over	15	4,845	10,476	27,294	1,369	118,603	186,381	67,455	—	—	6,423	37,267	68,314
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	167	1,349	(49)
Totals	582	17,793	37,971	77,909	5,117	242,688	439,956	195,592	181	749	23,723	112,553	204,726

See footnotes following Table 3 A.

TABLE 1C. Principal Statistics classified by Size Groups based on Manufacturing Value Added, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and elec- tricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
1961													
Under \$10,000	45	33	49	72	23	192	466	252	33	79	46	89	272
\$ 10,000 to \$ 24,999	77	187	328	524	69	913	2,337	1,350	60	214	239	651	1,378
25,000 " 49,999	70	369	704	1,183	128	1,863	4,568	2,579	27	131	470	1,591	2,657
50,000 " 99,999	94	885	1,822	2,811	331	5,798	12,912	6,695	34	194	1,156	4,019	7,479
100,000 " 199,999	98	1,677	3,552	5,779	468	16,259	30,652	13,873	4	29	2,278	8,842	17,492
200,000 " 499,999	90	2,974	6,434	11,015	900	28,607	56,813	27,745	6	44	3,868	16,238	29,679
500,000 " 999,999	35	2,306	4,895	8,844	578	27,724	53,039	25,357	—	—	3,118	13,149	26,969
1,000,000 " 4,999,999	28	4,829	10,524	22,740	1,505	76,163	139,264	60,957	—	—	6,807	33,802	63,070
5,000,000 and over	5	2,295	5,020	13,450	601	49,361	90,763	41,880	—	—	2,955	16,801	42,365
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	221	1,422	(51)
Totals	542	15,555	33,327	66,417	4,603	206,878	390,834	180,889	164	692	21,156	96,603	191,311
1962													
Under \$10,000	48	28	40	89	25	178	469	265	43	101	38	88	281
\$ 10,000 to \$ 24,999	72	170	311	523	69	960	2,275	1,242	64	239	225	702	1,506
25,000 " 49,999	71	330	646	1,163	119	2,054	4,715	2,486	37	171	423	1,518	2,786
50,000 " 99,999	108	997	2,033	3,508	325	7,209	15,310	7,793	26	160	1,357	5,216	8,993
100,000 " 199,999	92	1,524	3,130	5,399	460	10,729	23,871	12,811	6	33	2,046	8,193	14,126
200,000 " 499,999	107	3,509	7,651	13,523	919	29,947	62,683	32,163	4	39	4,482	19,281	34,038
500,000 " 999,999	42	2,886	6,200	11,270	740	31,473	59,879	28,584	1	5	3,713	15,883	29,331
1,000,000 " 4,999,999	39	6,768	14,413	31,740	2,032	114,188	196,810	81,601	—	—	9,454	47,721	84,916
5,000,000 and over	3	1,581	3,547	10,714	428	45,952	73,944	28,647	—	—	1,818	12,602	28,799
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	167	1,349	(49)
Totals	582	17,793	37,971	77,909	5,117	242,688	439,956	195,592	181	749	23,723	112,553	204,726

See footnotes following Table 3 A.

TABLE 1 D. Principal Statistics classified by Size Groups based on Total Value Added, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and elec- tricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
1961													
Under \$10,000	43	32	47	68	22	182	442	240	31	75	44	82	243
\$ 10,000 to \$ 24,999	76	180	320	504	63	883	2,257	1,306	62	219	225	609	1,305
25,000 " 49,999	69	342	647	1,083	127	1,827	4,394	2,473	27	131	437	1,447	2,524
50,000 " 99,999	92	849	1,747	2,782	319	4,848	11,637	6,420	34	194	1,084	3,845	6,550
100,000 " 199,999	96	1,634	3,470	5,542	450	13,717	27,429	13,153	4	29	2,146	8,202	14,069
200,000 " 499,999	92	2,870	6,228	10,678	884	27,337	54,987	27,125	6	44	3,767	15,821	29,028
500,000 " 999,999	36	2,284	4,833	8,640	504	29,422	52,533	23,379	—	—	3,002	12,567	25,159
1,000,000 " 4,999,999	33	5,069	11,014	23,670	1,634	79,302	146,372	64,713	—	—	7,275	35,809	70,119
5,000,000 and over	5	2,295	5,020	13,450	601	49,361	90,784	41,880	—	—	2,955	16,801	42,365
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	221	1,422	(51)
Totals	542	15,555	33,327	66,417	4,603	206,878	390,834	180,689	164	692	21,156	96,603	191,311
1962													
Under \$10,000	47	24	33	53	25	172	455	258	43	101	33	70	263
\$ 10,000 to \$ 24,999	68	153	276	477	64	787	2,009	1,148	63	233	193	583	1,166
25,000 " 49,999	70	318	626	1,121	115	1,749	4,320	2,466	38	177	405	1,437	2,514
50,000 " 99,999	103	874	1,782	3,158	296	5,377	12,838	7,188	26	160	1,124	4,279	7,436
100,000 " 199,999	93	1,534	3,149	5,307	441	10,064	22,699	12,200	6	33	2,016	7,842	13,308
200,000 " 499,999	110	3,318	7,224	12,755	903	27,348	58,802	30,858	4	39	4,286	18,369	32,823
500,000 " 999,999	47	3,025	6,491	11,780	718	36,333	65,462	29,409	1	5	3,968	17,228	31,379
1,000,000 " 4,999,999	41	6,966	14,843	32,544	2,127	114,906	199,427	83,418	—	—	9,713	48,794	87,089
5,000,000 and over	3	1,581	3,547	10,714	428	45,952	73,944	28,647	—	—	1,818	12,602	28,799
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	167	1,349	(49)
Totals	582	17,793	37,971	77,909	5,117	242,688	439,956	195,592	181	749	23,723	112,553	204,726

See footnotes following Table 3 A.

TABLE 1 E. Principal Statistics classified by Size Groups based on Total Employed,^{1,2} 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and elec- tricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
1961													
Under 5 employees	121	172	310	507	96	1,247	3,378	2,046	98	329	222	673	2,085
5- 14 employees	152	947	1,909	3,244	369	8,375	17,652	8,856	52	273	1,263	4,632	9,301
15- 49 "	183	3,872	8,310	13,946	1,171	40,418	80,609	39,430	12	74	5,118	20,968	44,742
50- 99 "	43	2,224	4,776	8,394	672	29,818	53,281	23,165	2	17	2,937	12,352	24,649
100- 199 "	21	1,997	4,261	8,012	609	18,577	40,276	21,026	—	—	2,688	11,512	22,455
200- 499 "	17	4,022	8,845	20,481	1,047	76,060	133,853	58,660	—	—	5,449	28,955	60,152
500 employees and over	5	2,321	4,916	11,834	639	32,384	61,784	27,506	—	—	3,257	16,090	27,979
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	221	1,422	(51)
Totals	542	15,555	33,327	66,417	4,603	206,878	390,834	180,689	164	692	21,156	96,603	191,311
1962													
Under 5 employees	104	116	210	374	77	876	2,441	1,489	91	277	149	470	1,502
5- 14 employees	190	1,147	2,319	4,216	413	9,860	21,824	11,538	83	415	1,524	5,996	12,607
15- 49 "	182	3,956	8,437	14,893	1,147	35,522	75,116	38,776	4	35	5,176	21,829	41,308
50- 99 "	54	2,791	6,119	11,410	812	35,468	63,791	28,402	3	22	3,605	16,436	29,779
100- 199 "	28	2,728	5,743	10,654	816	31,303	61,409	30,501	—	—	3,700	15,923	33,669
200- 499 "	20	4,915	10,539	23,501	1,224	82,335	138,118	55,008	—	—	6,703	34,217	55,982
500 employees and over	4	2,140	4,605	12,861	629	47,324	77,258	29,878	—	—	2,699	16,335	29,927
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	167	1,349	(49)
Totals	582	17,793	37,971	77,909	5,117	242,688	439,956	195,592	181	749	23,723	112,553	204,726

See footnotes following Table 3 A.

TABLE 1F. Principal Statistics classified by Type of Organization, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Type of organization	Establishments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and electricity ⁵	Cost of materials and supplies used ⁶	Value of shipments of goods of own manufacture ⁴	Value added ⁴	Working owners and partners ⁴		Total employees ⁷		Total value added ⁸
		Number	Man-hours paid	Wages					Number	With-drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1961													
Individual ownerships	84	237	440	730	90	1,798	3,981	2,109	79	347	262	793	2,130
Partnerships	42	279	615	1,004	108	1,128	3,577	2,342	85	345	307	1,102	2,387
Incorporated companies	416	15,039	32,271	64,684	4,405	203,952	383,276	176,239	—	—	20,366	93,287	186,864
Cooperatives													
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	221	1,422	(51)
Totals	542	15,555	33,327	66,417	4,603	206,878	390,834	180,689	164	692	21,156	96,603	191,311
1962													
Individual ownerships	79	154	288	503	73	941	2,450	1,438	84	316	171	544	1,474
Partnerships	46	278	585	1,010	92	1,142	4,194	2,994	97	432	308	1,191	2,986
Incorporated companies	457	17,361	37,098	76,395	4,952	240,605	433,312	191,160	—	—	23,077	109,469	200,315
Cooperatives													
Head offices, sales offices and auxiliary units ¹⁰ .....	...	...	...	...	...	...	...	...	...	...	167	1,349	(49)
Totals	582	17,793	37,971	77,909	5,117	242,688	439,956	195,592	181	749	23,723	112,553	204,726

See footnotes following Table 3 A.

TABLE 2. Industry Outputs, Inputs and Value Added, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Item	1961	1962
	\$'000	
Manufacturing activity:		
Value of shipments—Goods of own manufacture	390,834	439,956
Add: Closing inventory—Goods in process	13,213	14,868
Finished goods	21,249	24,871
Deduct: Opening inventory—Goods in process	13,180	13,575
Finished goods	19,946	22,723
Gross output—Manufacturing activity	392,170	443,397
Deduct: Cost of materials and supplies used in manufacturing activity	206,878	242,688
Cost of fuel and electricity used	4,603	5,117
Value added—Manufacturing activity	180,689	195,592
Non-manufacturing activities:		
Value of shipments—Goods not of own manufacture .....	..	47,619
Add: All other revenue .....	..	2,558
Closing inventory—Goods purchased for resale	5,442	6,113
Deduct: Purchases of goods for resale as such .....	..	38,679
Opening inventory—Goods not of own manufacture	5,958	6,303
Cost of all other materials and supplies used .....	..	2,174
Value added—Non-manufacturing activities	10,622	9,134
Total value added	191,311	204,726

See footnote following Table 3 A.

TABLE 3. Employment and Payroll, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Year and province	Employees										Salaries and wages					
	Production and related workers				Adminis- trative and office ⁴		Sales, and distribution ⁵		Total employees ^{7,8}		Production and related workers		Admin- istrative and office	Sales, and distri- bution	Total salaries and wages	
	Manufacturing ⁴		Other ⁹								Manufacturing	Other				
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufac- turing	Other				
1961	number										\$'000					
Newfoundland	}															
Prince Edward Island		9	—	..	..	..	..	..	..	13	2	25	..	..	..	43
Nova Scotia																
New Brunswick		11	—	..	..	..	..	..	..	17	2	43	..	..	..	94
Quebec		3,958	379	..	..	..	..	..	..	4,767	620	18,027	..	..	..	23,719
Ontario		7,888	1,290	..	..	..	..	..	..	10,513	2,346	39,661	..	..	..	59,648
Manitoba		764	13	..	..	..	..	..	..	977	80	2,968	..	..	..	4,428
Saskatchewan		199	—	..	..	..	..	..	..	262	14	778	..	..	..	1,161
Alberta	322	14	..	..	..	..	..	..	470	47	1,327	..	..	..	2,151	
British Columbia	673	35	..	..	..	..	..	..	928	98	3,587	..	..	..	5,358	
Canada	13,624	1,731	..	..	..	..	..	..	17,947	3,209	66,417	..	..	..	96,603	
1962																
Newfoundland	}															
Prince Edward Island		26	8	—	—	7	4	2	1	35	13	104	—	60	15	179
Nova Scotia																
New Brunswick		12	—	—	—	2	1	4	2	18	3	38	—	21	31	91
Quebec		4,426	407	32	2	643	239	255	47	5,356	695	20,971	198	5,024	2,009	28,201
Ontario		9,054	1,510	34	5	1,829	861	895	171	11,812	2,547	46,398	235	15,601	6,579	68,813
Manitoba		805	9	7	—	212	63	38	7	1,062	79	3,161	28	1,443	212	4,844
Saskatchewan		279	3	—	—	61	17	10	2	350	22	1,152	—	384	59	1,595
Alberta	439	10	—	—	101	23	35	9	575	42	1,818	—	615	241	2,674	
British Columbia	764	41	—	—	182	56	59	12	1,005	109	4,267	—	1,447	441	6,155	
Canada	15,805	1,988	73	7	3,037	1,264	1,298	251	20,213	3,510	77,909	461	24,594	9,589	112,553	

See footnotes following Table 3A.

TABLE 3A. Production and Related Workers⁴ - Manufacturing Activity, by Months, 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Month	Establishments reporting monthly detail	
	Male	Female
	number	
January	12,498	1,652
February	12,709	1,650
March	12,971	1,737
April	13,440	1,763
May	14,157	1,863
June	14,808	1,923
July	14,577	1,749
August	15,050	1,911
September	14,828	1,856
October	14,358	1,816
November	13,846	1,777
December	13,193	1,760
Average for establishments reporting monthly detail (collected only for large establishments)	13,895	1,791
Average for small establishments (only annual averages collected)	1,910	197
Average for all establishments	15,805	1,988

¹ See Table 2 and Explanatory Notes concerning manufacturing and non-manufacturing activities.

² See Explanatory Notes.

³ This category, in this table only, includes working owners and partners. Since administrative and office employees are engaged in a variety of activities they have been excluded from manufacturing activity beginning with the revised 1961 series shown in the following tables. They are included here for purposes of comparison with the tabulations of previous years.

⁴ Conceptually identical to previous years. See Explanatory Notes.

⁵ Cannot be reported separately for manufacturing and non-manufacturing activities but related substantially to manufacturing activity. Identical concept to previous years.

⁶ Working owners and partners were included with administrative and office employees in the "Manufacturing series" published in former years. See Explanatory Notes.

⁷ Includes production and related workers, administrative and office employees, sales distribution and other employees. See Explanatory Notes for the treatment of head office employees and those employed in auxiliary units.

⁸ Value of total shipments and other operational revenue less total cost of materials, supplies, fuels used and purchases of products and materials for resale in the same condition; all adjusted for inventory changes where required. See Table 2 and Explanatory Notes.

⁹ Sales and distribution workers and production workers (non-manufacturing) are included for the first time as a result of the full implementation of the new definition of the establishment. The figures for production workers (non-manufacturing), administrative and office employees and sales and distribution workers are not yet available for 1961 but form part of total employees. Sales and distribution workers may include some employees that are reported as part of a manufacturing establishment but are not working at the establishment's location. Head offices, sales offices, etc., which report separately are included in the figures for the province in which they are located.

¹⁰ These data cover the activities reported by separately located units such as head offices, sales offices, administrative offices, laboratories, warehouses, etc. Such units do not usually constitute separate "establishments" as they do not normally generate all the necessary elements of input and output statistics. However, they are treated as extensions of manufacturing establishments and, in the case of individual industries, may be located in provinces where no processing plants are situated. For the most part, these units contribute only to costs of operations (mainly salaries and wages) and they are included here to provide completeness and consistency of the statistics. See Explanatory Notes which deal with Single and Multi establishments for a complete explanation of procedures.

¹¹ Confidential data.

¹² Includes paid employees and working owners but excludes unpaid family workers.

Note: Figures may not add due to rounding.

TABLE 4. Materials and Supplies Used in Manufacturing Activity, 1962

Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Description		Quantity	Cost \$'000
1. Materials used:			
Iron and steel:			
Bars	ton	7,596	1,270
Plates	"	25,682	4,145
Sheets:			
Black	"	169,361	26,343
Galvanized	"	136,932	25,476
Tin plate	"	329,277	60,676
Strip	"	24,139	4,084
Structural shapes	"	5,919	978
Wire	"	3,193	646
Pipe, tubes and fittings	"	..	521
Alloy steel in all forms:			
Carbon and alloy steel, including tool steel:			
Billets, bars and rods	"	..	23
Other shapes	"	..	865
Stainless:			
Billets, bars and rods	"	..	276
Sheets	"	..	4,806
Other shapes	"	..	572
Other iron and steel	"	..	4,407
Non-ferrous metals:			
Aluminum:			
Castings	pound	196,506	72
Sheet	"	20,021,113	7,574
Other forms	"	15,843,873	5,738
Brass and bronze	"	1,784,742	888
Copper:			
Sheet	"	879,943	527
Wire	"	80,179	50
Other	"	332,337	186
Lead	"	713,467	92
Nickel	"	415,285	445
Tin	"	24,677	29
Zinc	"	7,018,357	965
Solders	"	2,145,796	612
Other non-ferrous metals	"	..	203
Other materials:			
Lumber	M ft. b.m.	3,995	402
Frit for enamelling	pound	2,228,611	480
Muriatic acid	"	868,045	36
Paints, oils and varnishes	"	..	5,139
Cork discs	"	..	1,292
Ammonium chloride	pound	123,000	12
Sulphuric acid, 100%	"	1,662,759	60
All other materials and components used ²	"	..	70,668
2. Containers and other packaging materials and supplies used			4,780
3. Operating, maintenance and repair supplies used (excluding fuel)			5,985
4. Amount paid out to others for work done on materials owned by establishments			1,367
Total			242,688

¹ See Explanatory Notes.

² No detailed information on materials used was collected from small establishments, the estimated costs for which are included here. In 1962 these estimated costs were \$11,020,529.

TABLE 5. Fuel and Electricity Used¹ in Manufacturing Activity,² 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept³

Description	Quantity	Cost \$'000
1. Large establishments which reported commodity detail:		
Bituminous coal:		
(a) From Canadian mines	ton 882	17
(b) Imported	" 14,111	181
Sub-bituminous coal (from Alberta mines only)	ton —	—
Anthracite coal	ton 521	8
Lignite coal	—	—
Coke	—	—
Gasoline (including gasoline used in cars and trucks)	Imp. gal. 1,359,928	503
Fuel oil including kerosene or coal oil	" 6,117,415	705
Wood	cord 757	7
Gas:		
(a) Liquefied petroleum gases	Imp. gal. 130,206	30
(b) Other manufactured gas	M cu.ft. 59	—
(c) Natural gas	" 1,327,207	1,090
Other fuel	—	—
Electricity purchased	kwh. 151,721,749	1,865
Steam purchased	—	58
2. Estimate for small establishments for which no data were collected:		
Fuel and electricity .....	...	653
3. All establishments:		
Total fuel and electricity used .....	...	5,117

¹ Does not include fuel and electricity produced for own use.

² Includes only fuel and electricity purchased. Conceptually identical to previous years in that it also includes relatively small amounts used in non-manufacturing activities since these cannot be reported separately.

³ See Explanatory Notes.

TABLE 6. Shipments of Goods of Own Manufacture, 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept¹

Description	Quantity	Value \$'000
1. Products:		
Barrels and drums, steel:		
Repeat shippers	No. 77,868	744
One-time shippers	" 1,399,199	5,649
Bottle caps—Metal .....	...	17,389
Cans, metal (food and non-food) .....	...	120,752
Culvert pipe	ton 59,195	18,547
Dairy supplies:		
Cream and milk cans .....	...	821
Other .....	...	400
Galvanized ware (pails, washtubs, etc; but not garbage and ash cans) .....	...	475
Garbage and ash cans .....	...	2,795
Hardware and tools .....	...	4,358
Heating equipment:		
Pipe and elbows (furnace and stove) .....	...	4,469
Tank heaters for domestic water supply	No. 113,432	5,918
Other heating equipment (range boilers, stoves, etc.) .....	...	4,152
Kitchen equipment for cafeterias, restaurants, etc. ....	...	10,536
Kitchenware, household (vitreous enamelled aluminium and stainless steel) .....	...	7,745
Maple syrup equipment:		
Evaporators (complete sets of pans) .....	...	175
Furnaces .....	...	35
Other .....	...	252
Poultry supplies (incubators, brooders, etc.) .....	...	139
Signs metal (including enamelled signs) .....	...	1,032
Spinnings, all metals (n.e.s.) .....	...	533
Stampings, all metals (n.e.s.) .....	...	18,617
Steel office furniture .....	...	60
Tanks:		
Pressure and vacuum .....	...	633
Storage and processing .....	...	5,398
Other .....	...	5,288
Tinware, japanned or not .....	...	2,292
Architectural and ornamental metal work .....	...	2,641
Metal door frames .....	...	1,041
Flooring, open steel .....	...	2,033
Lockers and shelving .....	...	3,823

See footnotes at end of table.

TABLE 6. Shipments of Goods of Own Manufacture, 1962 - Concluded

Description	Quantity	Value \$'000
1. Products - Concluded:		
Metal lath and corner bead	3,355
Metal mouldings and trim	28
Partitions, aluminum and steel	1,749
Roof deck	7,851
Roof drainage equipment:		
Steel	2,506
Other	205
Sheets, roofing and siding:		
Aluminum	9,644
Steel	6,362
Ventilators, including ducts	4,991
Windows, excluding combination storm and screen	565
Windows, other (combination storm and screen)	245
Prefabricated or portable metal buildings, complete units (in sections or panels) and prefabricated exterior metal panels (curtain wall sandwich panels and single faced panels)	3,048
Panels, parts or sections for prefabricated buildings, not sold as a complete unit	1
Amount received for custom anodizing	1,967
Amount received for custom electroplating	15,501
Amount received for custom enamelling	816
Amount received for custom work and repairs, n.e.s.	2,479
All other products	127,612
2. Amount received in payment for work done on materials and products owned by others		3,452
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above		(1,297)
Net adjustment for establishments receiving progress payments ²		123
Total adjusted value of shipments and work done		439,956

¹ See Explanatory Notes.

² See footnote 1, Table 7.

³ Included with all other products.

TABLE 7. Industry Inventories, 1962¹
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Province	Manufacturing				Non-manufacturing	Total inventories
	Raw materials and supplies	Goods in process	Finished goods of own manufacture	Total manufacturing	Products or materials purchased for resale	
book value \$'000						
Opening: ³						
Newfoundland	35	16	26	77	67	144
Prince Edward Island						
Nova Scotia						
New Brunswick						
Quebec	11	40	22	73	33	106
Ontario	6,848	3,868	6,296	17,012	1,502	18,514
Manitoba	18,004	6,581	13,338	37,923	3,941	41,864
Saskatchewan	1,661	619	686	2,966	147	3,113
Alberta	655	107	243	1,005	43	1,048
British Columbia	930	484	613	2,027	416	2,443
Totals ⁴	1,318	1,861	1,498	4,677	155	4,832
	29,460	13,575	22,723	65,758	6,303	72,061
Closing:						
Newfoundland	19	33	10	62	57	119
Prince Edward Island						
Nova Scotia						
New Brunswick						
Quebec	12	48	30	90	87	177
Ontario	6,683	3,954	6,360	16,997	1,628	18,625
Manitoba	18,530	7,203	15,742	41,475	3,489	44,964
Saskatchewan	1,583	931	622	3,136	143	3,279
Alberta	785	153	174	1,092	53	1,145
British Columbia	998	598	542	2,138	507	2,645
Totals ⁴	1,322	1,949	1,391	4,662	149	4,811
	29,912	14,868	24,871	69,651	6,113	75,764

¹ Values represent book values of inventories owned in Canada. Inventories held for which progress payments have been received are not included. Where progress payment accounts are maintained the change in these accounts is treated as a net adjustment to shipments.

² See Explanatory Notes.

³ The opening inventories may differ from the closing inventories for the previous survey year because of changes in classification, the receipt of revised data, the inclusion of new establishments and the removal of establishments which did not operate during the survey year.

⁴ Figures may not add due to rounding.

TABLE 8. Shipments of Goods of Own Manufacture - All Industries
A. Metal Cans, 1953 - 62

Year	Value	Year	Value
	\$'000		\$'000
1953	74,309	1958	107,125
1954	77,842	1959	114,098
1955	88,559	1960	108,520
1956	90,188	1961	109,578 ¹
1957	97,521	1962 ²	122,680

¹ The total for 1961 does not include cans made for own use by some firms previously classified to this industry which were transferred to other industries as a result of combinations in line with the New Establishment Concept. On this account the total for 1961 is not exactly comparable with totals for previous years.

² Includes aluminum cans as of 1962.

B. Steel Barrels and Drums,¹ 1953 - 62

Year	Repeat shippers		One-time shippers	
	Number	Value	Number	Value
		\$'000		\$'000
1953	55,099	529	852,205	2,715
1954	39,484	393	816,596	2,571
1955	123,530	909	1,019,297	3,200
1956	160,753	1,353	1,269,304	3,569
1957 ²	87,633	844	1,104,669	3,984
1958	51,504	524	1,112,810	4,410
1959	38,000	382	1,449,689	5,506
1960	87,174	730	1,040,164	4,488
1961	79,670	640	1,127,230	4,725
1962	77,868	744	1,441,649	5,731

¹ Not including drums made by some companies for their own use only.

² Starting with 1957 Steel barrels and drums were defined as being over 10 Imperial gallons capacity. Repeat shippers were defined as being made of 16 gauge material or heavier while one-time shippers were defined as being made of 18-24 gauge material, but including 28 gauge asphalt drums. Data prior to 1957 were not so defined and, as a result, are not strictly comparable with later years.

C. Metal Lath and Corner Bead, 1953 - 62

Year	Value	Year	Value
	\$'000		\$'000
1953	2,667	1958	4,691
1954	3,414	1959	4,450
1955	3,664	1960	3,963
1956	4,299	1961	4,118
1957	4,136	1962	4,439

D. Metal Bottle Caps, 1953 - 62

Year	Value	Year	Value
	\$'000		\$'000
1953	11,937	1958	14,491
1954	11,134	1959	15,700
1955	12,172	1960	15,924
1956	13,130	1961	17,201
1957	13,990	1962	17,389

TABLE 8. Shipments of Goods of Own Manufacture - All Industries - Continued

E. Sheet Metal Culvert Pipe, 1953 - 62

Year	Quantity	Value	Year	Quantity	Value
	tons	\$'000		tons	\$'000
1953	30,348	10,048	1958	59,600	19,634
1954	34,700	11,205	1959	66,300	21,296
1955	46,000	14,526	1960	54,720	17,314
1956	57,800	19,188	1961	64,130	20,026
1957	56,100	18,786	1962	65,317	20,265

F. Roof Drainage Equipment, 1953 - 62

Year	Value	Year	Value
	\$'000		\$'000
1953	2,208	1958	2,957
1954	2,537	1959	2,704
1955	3,426	1960	3,162
1956	3,485	1961	2,845
1957	2,694	1962	2,728

G. Aluminum and Stainless Steel Kitchenware, 1953 - 62

Year	Value		Year	Value	
	Aluminum	Stainless steel		Aluminum	Stainless steel
	\$'000			\$'000	
1953	8,187	¹	1958	7,293	2,368
1954	7,976	¹	1959	6,409	2,029
1955	6,631	1,413	1960	5,707	1,675
1956	6,263	1,666	1961	4,830	1,817
1957	6,802	1,964	1962	5,719	2,340

¹ Not available prior to 1955.

H. Galvanized Sheets, 1953 - 62

Year	Tonnage sold ¹	Value	Year	Tonnage sold ¹	Value
		\$'000			\$'000
1953	105,980	17,470	1958	192,000	32,636
1954	101,000	16,526	1959	288,951	51,265
1955	156,000	25,426	1960	275,000	46,710
1956	206,000	34,194	1961	328,000	54,736
1957	170,000	28,893	1962	358,000	59,246

¹ Does not include approximately 2,000 tons of galvanized sheet further processed into "Roofing" in 1955; approximately 3,000 tons in 1956; approximately 3,900 tons in 1957; approximately 5,000 tons in 1958; approximately 5,400 tons in 1959; approximately 8,000 tons in 1960; approximately 7,000 tons in 1961, and approximately 6,500 tons in 1962.

TABLE 8. Shipments of Goods of Own Manufacture - All Industries - Concluded
I. Stove and Furnace Pipe, 1953-62

Year	Value	Year	Value
	\$'000		\$'000
1953	2,231	1958	3,970
1954	2,318	1959	5,063
1955	2,279	1960	5,179
1956	3,228	1961	6,050
1957	3,812	1962	4,990

J. Aluminum and Steel Roofing and Siding, 1957-62

Year	Value	
	Aluminum	Steel
	\$'000	
1957	4,406	4,303
1958	5,978	5,751
1959	6,603	6,779
1960	7,782	7,275
1961	12,282	5,998
1962	13,827	6,489

TABLE 9. Capital and Repair Expenditures, 1960-62

	Capital expenditures			Repair expenditures			Total capital and repair expenditures		
	Construction	Machinery and equipment	Sub-total	Construction	Machinery and equipment	Sub-total	Construction	Machinery and equipment	Total
	\$'000								
1960	2,570	9,079	11,649	994	4,612	5,606	3,564	13,691	17,255
1961	2,441	8,162	10,603	1,039	5,679	6,718	3,480	13,841	17,321
1962	2,952	10,682	13,634	1,253	6,691	7,944	4,205	17,373	21,578

Source: Business Finance Division. - DBS.

List of Establishments, 1962

Name of firm	Location of plant
Newfoundland:	
Armco Drainage & Metal Products of Canada Ltd.	Bishop's Falls
W.J. Raymond	Catalina T.B.
Prince Edward Island:	
Charlottetown Metal Products Ltd.	Charlottetown
Nova Scotia:	
Drew Metals Limited	Truro
Smith, H.V.	Shubenacadie
Waldale Ltd.	Amherst
Zenith Electroplating Ltd.	Windsor
New Brunswick:	
Armco Drainage & Metal Products	Sackville
Jules Grondines Reg'd	St. John
Leger Metal Workers Ltd.	Moncton
McDade, James	Saint John
Wilson & Smith	St. John

List of Establishments, 1962 - Continued

Name of firm	Location of plant
Quebec:	
Accessories Manufacturers Limited.....	Montreal
Acme Plating Ltd.	Longueuil
Alanco Limited.....	Montreal
Alfa Manufacturing & Designing Ind.	Montreal
Allied Entreprises Limited.....	Montreal
* American Can Co. of Canada Ltd.	Montreal
Arco Metals Inc.	Montreal
Armco Drainage & Metal Products of Canada, Ltd.	Charny
Arrow Plating & Mfg. Ltd.	Montreal
Artnetwork Reg'd.	Montreal
Art Steel Products Ltd.	Mackayville
Atlantic Dry Kiln Ltd.	Rimouski
Audet, J.E., Soudures Inc.	Québec
Auvents Richelieu Enr.	Iberville
Aviation Products Co.	Ville St. Laurent
Bélanger & Frère Enrg.	Mont Laurier
B. & L. Stamping Co. Ltd.	Ville St. Michel
Brock Steel Corp.	Montreal
Canadian Aquarium Co.	Montreal
Canadian Artistic Dies Inc.	Sherbrooke
Canadian Crown Cork Company, Limited.....	Ville LaSalle
Canadian Kitchen & Sheet Metal Works Inc.	Montreal
Cantin, H.E., Enrg.	Champigny
Cassidy & Maillard Ltd.	Montreal
Cassils & Co.	Montreal
Central Duct Work Reg'd.	St. Jean
Chatham Art Metal Works Ltd.	Montreal
Circ-Etch Company Limited.....	Montreal
City-Wide Plating Co. Ltd.	Montreal
* Continental Can Company of Canada, Limited.....	St. Laurent
Cresswell-Pomeroy Ltd.	Granby
Crown Cork & Seal Company Ltd.	Montreal
D. & L. Sheet Metal Works Reg'd.	Ville Jacques Cartier
Defender Metal Fabricators Ltd.	Lachine
Delormier Industries.....	Montréal-Nord
Dominion & Grimm Inc.	Montreal
Dupont, Léo	Cité Bagot
Eastern Industries.....	Drummondville
Empire Electro-Plating Works Ltd.	Verdun
Engineering Products of Canada Ltd.	Montreal
Établissements Galvanart Ltée	Trois-Rivières
Expert Sheet Metal Works.....	Montreal
Farblanerie Générale Enr.	Etang du Nord, Montreal
Fatsy, R. Ltd.	Montreal
Farost, Roger Inc.	Montreal-Nord
Farusteel Products Ltd.	Rivière-Des-Prairies
Fortin & Hamelin	Montréal
Fournier Steel Work Ltd.	Black Lake
Garand & Thibault Enrg.	Québec
G.B. Welding Inc.	Ville d'Auteuil
General Buffing Enrg.	Ville Jacques-Cartier
General Iron Works Co.	St. Michel, Montreal
General Metal Works Limited.....	Montreal
General Steel Wares Limited.....	Montreal
Gero Ltd.	Ville St. Michel
Hamel & Guertin Limited.....	Montreal
Hochelago Metal Fabricators Inc.	Montreal
Hotel & Restaurant Sheet Metal Works Inc.	Montreal
Hull Ottawa Plating Ltd.	Hull
Hunter Douglas Ltd.	Montreal
Hurtsteel Products Ltd.	Montreal East
Industrial Containers Limited.....	Ville LaSalle
Industrial Stampings Ltd.	Bromptonville
International Cooperage Co. of Canada Ltd.	Buckingham
Julien, Léo, T., Inc.	St. Malo
Kitchen Specialties Inc.	Town of Mount Royal
Labelle Kitchen Equipment Company Limited.....	Montreal
Lamer & Côté Reg'd.	Montreal
Laurentide Enamelers Ltd.	Montreal
Laurentide Metal Stamping Ltd.	St. Jérôme
Laval Sheet Metal Works.....	St. Martin
Le François, S. & Fils Ltée.....	Québec
L'Hoir Inc.	Lévis
Léon Glass Ltd.	Lachine
Lessnik Roofing & Sheet Metal Works.....	Montreal
Limoges, Jean-Paul.....	St. Laurent
Lite, A.R. Manufacturing Co.	St-Vincent-de-Paul
Louiseville Générale Entreprise.....	Louiseville, cté Maskinongé
Lunn, G.J., Mfg. Co. Ltd.	LaSalle
Luxor Industries.....	Ville St. Michel
Mahon Hardware Mfg. Co. Ltd.	Montreal
MacDonald Drums Mfg. Corporation.....	Ville St. Pierre
MacQueen, Donald, Co. Ltd.	Montreal
Martin Steel Ltd.	Montreal
Marval Ltd.	Montreal
Maska Galvanisé Enrg.	St-Hyacinthe
Metal Casting & Plating Co. Inc.	Montreal
Mauruer, Fortier & Meyers, Limited.....	Montreal
Mitchell, Robert, Co. Ltd.	St. Laurent
Modern Metal Industries.....	Montreal

* Tin can manufacturers mostly.

List of Establishments, 1962 - Continued

Name of firm	Location of plant
Quebec - Concluded:	
Modern Plating.....	Drummondville
Montmorency Corporation.....	Quebec
Montreal Roofing Mfg. Co. Ltd.	Montreal
North American Food Eqpt. Mfg. Ltd.....	Montreal
Nu-Way Products Ltd.....	Montreal
Otterburn Sheet Metal Industries.....	Otterburn Heights
Paterson, Wm. & Co., Inc.	Montreal
Plater's Inc.	Montreal
Plating Industries Ltd.....	Ville St. Michel
Plumbing & Stainless Steel Works Ltd.....	Montreal
Presto Plating Regd.....	Montreal
Prévost, A. & D.....	Richelieu
R.J. Stamping Co. Ltd.....	Ville St. Michel
R.L. Metal Ltée.....	Ville St. Michel
Riverin, S.O., & Cie Ltée.....	Saint Malo
Robitaille & Frère Enrg.....	St-Vincent-de-Paul
Roll Up Aluminum Awnings, Ltd.....	Sherbrooke
Rosco Metal Products Ltd.....	Montreal
Roy Metal Works Ltd.....	Montreal
Russell, Lillian, Reg'd.....	Montreal
St. John Metal Stamping & Spinning Reg'd.....	St. Jean
St. Lawrence Sheet Metal Works.....	Montreal
Savar, David & Sons Inc.....	Quebec
Savard, Jean Inc.....	Montreal
Saxe Bros. Inc.....	Ville St. Michel
Small Brothers Reg'd.....	Dunham
Talarico Limited.....	Montreal
Talbot Metal Inc.....	Montreal
Teknik B.S., Inc.....	Valcourt
Tripax Stamping & Mfg. Co. Inc.....	Rivières Des Prairies
Tru-Way Sheet Metal Works Co. Ltd.....	Ville LaSalle
Unic Steel Products Ltd.....	Longueuil
Union Screen Plate Co. of Canada Ltd.....	Lennoxville
Vacuum Plasters Inc.....	Montreal
Ventilateurs Lauzon Enrg.....	Montreal
Verdun Anodizing Inc.....	Verdun
Vic Aluminum Ware Ltd.....	Montreal
Vic Metals Inc.....	Victoriaville
Victoria Metallic Co. Ltd.....	Montreal
Warmal Sheet Metals Inc.....	Cowansville
Weather-Vane Aluminum Prods. Ltd.....	Verdun
Ontario:	
Abramovitz, Louis.....	Toronto
Acadian Platers Ltd.....	Toronto
Accurate Machine & Tool Co.....	Weston
Ace Metal Works.....	Toronto
Achex Products Ltd.....	Rexdale
Acme Electroplating Co. Ltd.....	Toronto
Acme Stainless Steel Works.....	Cooksville
Acme Steel Co.....	Scarborough
Advance Gerrard Electric Plating Ltd.....	Toronto
Airlume Manufacturing (Oshawa) Ltd.....	Oshawa
Air Shade Aluminum Awnings Ltd.....	Napanee
Ajax Precision Mfg. Co. Ltd.....	Toronto
Aladdin Industries (Canada) Ltd.....	Toronto
Alanco (Aurora) Limited.....	Aurora
Alexander Metal Products Co. Ltd.....	Ottawa
Allbright Platers Ltd.....	Hamilton
Alloy Platers Ltd.....	Weston
Alloy & Steel Fabricators of Canada Ltd.....	Scarborough
Altron Fabricating Ltd.....	Toronto
Aluminum Goods Limited.....	Toronto
Amalgamated Plating Co.....	Toronto
*American Can Company of Canada Ltd.....	Chatham
*American Can Company of Canada Ltd.....	Hamilton
*American Can Company of Canada Ltd.....	Hamilton
*American Can Company of Canada Ltd.....	Simcoe
American Electro Platers.....	Toronto
A. & M. Mfg.....	Chatham
Anchor Cap and Closure Corp. of Canada Limited.....	Toronto
Anchor Metal Products.....	Toronto
Anderson Mfg. Co.....	Toronto
Applebaum, Reg'd.....	Ottawa
Argosy Metal Mfg.....	Toronto
Aristocratic Platers Ltd.....	New Toronto
Arlington Mfg. Co.....	Toronto
Armco Drainage & Metal Products of Canada, Ltd.....	Guelph
Armstrong John A. & Assoc.....	Port Arthur
Artron Polishing & Plating.....	Toronto
Atlas Manufacturing.....	Windsor
Automatic Metal Stamping.....	Toronto
Barber-Coleman of Canada Ltd.....	Toronto
Babcock Mfg. Co.....	Hamilton
Barco Metal Products, Ltd.....	Windsor
Bardeau Ltd.....	Downsview
Barker Poultry Equipment Co. Ltd.....	Cooksville
Beach Industries Ltd.....	Smiths Falls

* Tin can manufacturers mostly.

List of Establishments, 1962 - Continued

Name of firm	Location of plant
Ontario - Continued:	
Beadex of Canada Ltd.	Brantford
Beaver Electro Plating Co.	Toronto
Belleville Platers	Belleville
Bendal Machine Co. Ltd.	Brampton
Bevel Stamping Co. Ltd.	Etobicoke
Bishop Sons & Co. Ltd.	Toronto
Blair Metal Products	Woodstock
Boniface Sheet Metal	Hamilton
* Borden Co. Ltd.	Ingersoll
Brantford Mechanical Devices Ltd.	Brantford
Brantford Soda Fountain Co.	Brantford
Bri-Cad Electro Platers Ltd.	Toronto
Bristol Cadmium Plating Co. Ltd.	Toronto
Britex Polishing	Scarboro
Broome, J. Ward Ltd.	Weston
Broome Porcelain Co.	Dixie
Bruce Pressed Steel Products Ltd.	Toronto
Buckley's Sheet Metal Mfg. Ltd.	Scarborough
Burford Sheet Metal	Burford
Butler Metals Ltd.	Preston
Calco Metal Mfg.	New Sarum
Cametoid Limited	Ajax
Canada Culvert Co. Ltd.	London
Canadian Business Machines Ltd.	Toronto
Canadian Calendar Metal Company	Toronto
* Canadian Canners Ltd.	Burlington
Canadian Fanner Ltd.	Hamilton
Canadian Permacote Co.	Windsor
Canadian Rogers Eastern Ltd.	Toronto
Canadian Steel Strapping Co. Ltd.	Scarborough
Canadian Thermos Products Ltd.	Scarborough
Canadian Welding & Mfg. Co.	Windsor
Carleton Culvert Co. Ltd.	Bells Corners
Carrière, Fred & Son	Eastview
Century Engineering Co.	Toronto
Chadwick's Ralph, Plating Works	Toronto
Chatham Plating	Chatham
Chicago Metallic Western Hemisphere Ltd.	Toronto
Clark, John W. Ltd.	Toronto
Clifel Inc.	Toronto
Climax Plating	Toronto
Coleman Metal Products	Toronto
Collins Never Fail Products Limited	Hamilton
Colmor Metal Specialties Ltd.	Toronto
Columbia Metal Rolling Mills Ltd.	Rexdale
Comco The Electric Plating Co.	Uxbridge
Commando Chrome Plating Co. Ltd.	London
Condor Manufacturing Company	Scarborough
Conrad Metal Spinning Co.	Toronto
* Continental Can Co. of Canada, Limited	New Toronto
* Continental Can Co. of Canada, Ltd.	Toronto
Cornell Engineering Company Limited	Toronto
Cornell Plating Co. Ltd.	Hamilton
Corrugated Pipe Co.	Stratford
Court Galvanizing, Ltd.	Guelph
Crown Cork & Seal Company Limited	Toronto
Danor Mfg. Co.	Gorrie
Day Co. of Canada, Ltd.	Rexdale
Debon Developments Limited	Toronto
Decedar Brothers Ltd.	Wallaceburg
Dillon, W.E. Company Limited	Leaside
Dominion Al-Chrome Corp.	Toronto
Dominion Electroplating	Midland
Doris, C.P. Sheet Metal	Peterborough
Dovercourt Electro-Plating Co. Ltd.	Toronto
Dow, Thomas Electroplating Ltd.	Ft. William
Dundas Sheet Metal Work Ltd.	Toronto
Dura-Chrome Ltd.	Wallaceburg
Duro Aluminum Ltd.	Hamilton
Duro Metalware Limited	Hamilton
Eastern Steel Products Company	Preston
East Side Plating Co. Ltd.	Windsor
Ekco Products Co. (Canada) Ltd.	Toronto
Elan Tool & Die Ltd.	Chatham
Electronic Coating	Galt
El-Mech Tools Ltd.	Welland
El-Met Parts Ltd.	Dundas
Embro Welding & Steel Fabrication	Embro
Equipment Manufacturing Co. Ltd.	Toronto
Erno Mfg. Co. Ltd.	Toronto
Etmeco Limited	Toronto
Everingham Bros. Ltd.	Toronto
Ewing, Robert D.	Hamilton
Fabricated Steel Products (Windsor) Ltd.	Windsor
F.D.R. Tool & Machine Co.	Preston
Flexi-Top Products	Toronto
Frost Metal Products Ltd.	Hamilton
General Steel Wares, Limited	Toronto
Glosta Mfg. Co. Ltd.	Port Hope
Graham Sheet Metal Ltd.	Port Colborne

* Tin can manufacturers mostly.

List of Establishments, 1962 - Continued

Name of firm	Location of plant
Ontario - Continued:	
Hamilton Aluminum Ware Mfg. Co. Ltd.	Hamilton
Hartman Metal Fabricators Ltd.	Caledonia
H. & E. Plating	Scarborough
Hi-Lustre Limited	Perth
Hind Mfg. Co.	Braceridge
Hogarth Platers Ltd.	Toronto
Hollys Anodizing Service	Toronto
Homer & Wilson Ltd.	Hamilton
Hospital & Kitchen Equipment Co. Ltd.	Toronto
Hubbell, E.S., & Sons Ltd.	Thamesville
Hughes, L.G., Sheet Metal	Toronto
Hy-Grade Electro-Platers Ltd.	Guelph
Ideal Metal Stamping Ltd.	Ridgetown
Imperial Refractories & Equipment Ltd.	Waterloo
Industrial Containers Ltd.	Hamilton
Industrial Electro-Plating Co.	Toronto
Industrial Platers (Windsor) Ltd.	Windsor
Inland Building Products Ltd.	Scarboro
International Cooperage Co. of Canada Ltd.	Fort William
International Cooperage Co. of Canada Ltd.	Stoney Creek
International Silver Co. of Canada Ltd.	Barrie
Jackson Metal Industries Ltd.	Hamilton
Jeune Metal Products Ltd.	Toronto
Johnstel Metal Products Ltd.	Windsor
Jones Manufacturing Co. Ltd.	Stratford
Joseph, N.C., (Canada), Ltd.	Niagara Falls
Joyce & Smith Co. Ltd.	Hamilton
Karlson Sheet Metal & Heating Service	Stoney Creek
K.B.M. Tool & Manufacturing Co. Ltd.	Weston
Kent Buffing Specialty Ltd.	Lindsay
Kent Tool Ltd.	Markham
Ketchum Mfg. Co. Ltd.	Ottawa
Kirby Brothers Limited	Woodstock
Kitchener Electronics Industries Ltd.	Kitchener
Kool-Lite Aluminum Awning Co.	Toronto
Koolside Products Ltd.	Brantford
Kraemer, Leo & Co. Ltd.	Kitchener
Kuntz Electroplating Ltd.	Kitchener
Leaside Plating	Scarborough
L. & J. Plating Co. Ltd.	Brantford
Leigh Metal Products	London
Lockwood Manufacturing (Canada) Ltd.	Brantford
London, "The" & Petrolia Barrel Co. Ltd.	London
London Silverplating & Repairing	London
Luster Corporation of Canada Ltd.	Wallaceburg
MacDonald Sheet Metal	Preston
MacFarlane Engineering Co. Ltd.	Toronto
MacKinnon & Urquhart	Toronto
Manufacturers Plating Co. Ltd.	Windsor
Manville Plating Company	Scarborough
Maple Machine & Tool Co. Limited	Downsview
Mastin James Co.	Scarborough
McBride Manufacturing Company	Windsor
McDermott Metal Products Limited	Toronto
McDonald, C.J., Co.	Toronto
McEwan-Syer-Moogk Ltd.	Waterloo
McKechnie, John Tool & Stampings Ltd.	Toronto
Meaford Tank Co.	Meaford
Medland Enterprises	Toronto
Metropolitan Metal Spinning Co. Ltd.	Toronto
Millbrook Industries	Millbrook
Milne Steel Fabricating Co.	Hamilton
Milrod, Ralph, Metal Products Ltd.	Toronto
Mitten Industries Limited	Galt
Modern Building Products Co.	Toronto
Modern Plating Ltd.	Toronto
Monarch Master Manufacturing Ltd.	Toronto
Montgomery Metal Products Co.	Rexdale
Moyer & Diebel Metalcrafts Limited	Jordan Station
Mundet Cork & Insulation Limited	Toronto
Munro Metal Products Limited	Hamilton
Murphy Sheet Metal	Preston
Nagy, Alex J. & Sons Ltd.	Cooksville
National Hard Chrome Plating Co.	Toronto
National Steel Drum Ltd.	Petrolia
Natweld Steel Products Ltd.	Rexdale
Neo Chrome Ltd.	Hamilton
Newman, S.H., Company Ltd.	Toronto
Niagara Iron Works	Toronto
Norseman Welding Ltd.	Toronto
North American Containers Ltd.	Aylmer
Northern Plating Co. Ltd.	Toronto
Oak Stamping Co.	Windsor
Ontario Culvert & Metal Prod. Ltd.	Waterloo
Operation Reliance Inc.	Toronto
Paramount Plating	Toronto
Patterson Plating	Toronto
Pedlar People Limited	Oshawa
Penco Mfg. Co.	St. Catharines
Peterborough Plating Co. Ltd.	Peterborough
Plaza Electro-Plating Ltd.	Toronto

List of Establishments, 1962 - Continued

Name of firm	Location of plant
Ontario - Concluded:	
Porcelain & Metal Products Ltd.	Orillia
Pratt, J. Murray, Mfg. Co. Ltd.	Barrie
Precision Platers	St. Catharines
Precision Vacuum Products Ltd.	Toronto
Premier Tool & Die Ltd.	Toronto
Preston Metal & Roofing Products Ltd.	Preston
Price & Knott Mfg. Co.	Toronto
Pritchard Plating	London
Progressive Platers Ltd.	Toronto
Provincial Alum. Awning Corp. Ltd.	Toronto
Rapid Plating Works	Toronto
Rauscher Plating Ltd.	Galt
Reininger R. & Son Ltd.	Toronto
Reixinger & Schultes Mfg. Co.	Markham
Reliable Sheet Metal Mfg. Co.	Toronto
Rheem Canada Ltd.	Hamilton
Riecke Metal Products Canada Ltd.	Brampton
Riexinger & Schultes	Markham
Rideau Aluminum & Steel Ltd.	Ottawa
Riverside Sheet Metals Ltd.	Riverside
Robert Sheet Metal Co. Ltd.	Hamilton
Robertson Irwin, Ltd.	Hamilton
Robertson, Irwin (Robertsteel (Canada), Mfg. Division)	Hamilton
Rosco Metal & Roofing Products Ltd.	Toronto
Sasco Tubes Limited	Toronto
Scancraft Plating Ltd.	Toronto
Scarboro Sheet Metal Works	Toronto
Seabrook Manufacturing Co. Ltd.	Toronto
Seal-Spout of Canada Ltd.	Scarboro
Selkirk Metal Products (Eastern) Ltd.	Brockville
Simon's Eastern Mfg. Co. Ltd.	Waterloo
Sol Friendly Sheet Metal Works Ltd.	Toronto
Soren Manufacturing Co. Ltd.	Toronto
Sovereign Housewares Ltd.	Toronto
Spun Metals Ltd.	Toronto
Stainless Steel Products Ltd.	Brantford
Stamped & Enamelled Ware, Limited	Hespeler
Standard Electro-Platers Ltd.	Toronto
Standard Plating Co.	Ottawa
Stanley Steel Co. Ltd.	Hamilton
Star Electro-Plating Co. Ltd.	Toronto
Star Sheet Metal Mfg. Co.	Toronto
Steelath Co. Ltd.	Toronto
Sterling Electro-Plating Co.	Toronto
Sterling Radiant-Devices Ltd.	Toronto
Sudbury Regent Plating Co. Ltd.	Sudbury
Sun Polishing & Buffing Co.	Toronto
Sun Tool & Stamping Co. Ltd.	Windsor
Superfinish Co. Ltd.	Toronto
Super Plating Co. Ltd.	Toronto
Supreme Aluminum Industries Ltd.	Toronto
Supreme Anodizing Ltd.	Toronto
Supreme Metal Work & Stamping Co.	Ottawa
Thor Industries Ltd.	Toronto
Thorn, W.J., Ltd.	London
Toronto Cadmium Plating & Tinning Co. Ltd.	Toronto
Toronto Plating Co.	Toronto
Toronto Specialties Mfg. Co.	Toronto
Tridon Manufacturing Ltd.	Hamilton
Tri-Sure Products, Ltd.	St. Catharines
Tudhope Specialties Ltd.	Orillia
Tweed Steel Works Ltd.	Tweed
Twin-Cee Limited	Georgetown
Tyrell, Evert	Oakville
United-Cart Fastener Co. of Canada Ltd.	Hamilton
United Electro-Platers	Toronto
Vacuum Metallizing Limited	Toronto
Vanguard Aluminum	Windsor
Vent Rite Mfg.	Toronto
Verral Metal Fabricators Ltd.	Scarborough
Verspeelt Buffing	Tecumseh
Vulcan Containers Ltd.	Rexdale
Weatherguard Awnings Prods. Ltd.	Scarborough
Weber, J., Sheet Metal Works	Simcoe
Webster, Thomas K., Ltd.	Ottawa
Westworth Industries Limited	Stoney Creek
Westeel Products Ltd.	Toronto
Wheeler & Bain Limited	Toronto
White, David, Sheet Metal Products	Toronto
Wickware-Stackbin, Ltd.	Perth
Windsor Chrome-Plating Co.	Windsor
Wood, John, Company Ltd.	Toronto
Wright, H.G., Mfg. Co. Ltd.	Hamilton
Wrought Iron Range Co. Ltd.	Toronto
X-Pert, Metal Finishing Ltd.	Hamilton
York Electro Plating	Thorold
Zenith Electroplating Ltd.	Toronto
Manitoba:	
Acme Metal Products Ltd.	Winnipeg
Armco Drainage & Metal Products of Canada, Ltd.	Winnipeg
Arnett Co. Ltd.	Winnipeg

List of Establishments, 1962 - Continued

Name of firm	Location of plant
Manitoba - Concluded:	
Cadorth Plating Co.	Winnipeg
Canadian Corrugating & Stamping Company Ltd.	St. Boniface
Canadian Rogers Western Ltd.	Winnipeg
Coates, Frederick A.	Morris
Commercial Plating Ltd.	St. James
Custom Sheet Metal Works	St. James
Dominion Sheet Metal Co.	Winnipeg
Elite Metal Products Ltd.	Winnipeg
Empire Sheet Metal Manufacturing Co. Ltd.	St. James
Engel Sheet Metal Mfg.	Winnipeg
Great West Metal Products Ltd.	Winnipeg
Henn-Rich Manufacturing Ltd.	St. Boniface
Man-Men Industries Ltd.	Winnipeg
Master Metal Products Co.	Winnipeg
McDonald Bros. Sheet Metal	Winnipeg
Metal Industries Ltd.	Brandon
Monarch Plating Co. Ltd.	Winnipeg
Provincial Metal & Heating Co.	Winnipeg
Rosco Metal Products Ltd.	St. James
*Selkirk Metal Products Ltd.	Winnipeg
Sheffield Silver Plating Co. Ltd.	Winnipeg
Westeel Products Ltd.	St. Boniface
Western Furnace & Roofing Ltd.	Winnipeg
Western Standard Fittings Ltd.	Fort Whyte
Wood, John, Company, Limited	Winnipeg
Saskatchewan:	
Allied Heating Supply Ltd.	Regina
*Armco Drainage & Metal Prod. of Canada Ltd.	Regina
Fulco Metal Products Ltd.	Regina
Harding Industries Ltd.	Saskatoon
Prairie Metal Products Ltd.	Regina
Symon's Metalworkers Ltd.	Rocanville
Westeel Products Ltd.	Regina
Westeel Products Ltd.	Saskatoon
Zol-Mark (Canada) Ltd.	Regina
Alberta:	
Armco Drainage & Metal Products of Canada Ltd.	Edmonton
Barry Sheet Metal Company, Limited	Edmonton
Calgary Plating Works	Calgary
Capital Plating Edmonton Ltd.	Edmonton
Cone Water Heaters Ltd.	Calgary
Continental Can Co. of Canada Ltd.	Edmonton
Daam Galvanizing Co.	Edmonton
Ecco Heating Products Ltd.	Edmonton
Edmonton Silver Plating Co. Ltd.	Edmonton
Edmonton Tinsmith Supplies Ltd.	Edmonton
Expanded Metal Co. of Canada Ltd.	South Edmonton
Frontier Steel Industries Ltd.	Grande Prairie
Industrial Sheet Metal Products	Calgary
International Cooperaage Co. of Canada Ltd.	Lloydminster
McCready Products Ltd.	Edmonton
McKinley & Taylor Ltd.	Edmonton
Manco Chrome	Calgary
Metal Fabricators and Roofing Limited	Edmonton
Regal Sheet Metal	Calgary
Rheem Canada Limited	Clover Bar
Robertson-Irwin Ltd.	Edmonton
Rosco Metal Products (Alberta) Ltd.	Calgary
Rosco Metal Products Limited	Edmonton
Superior Awnings Ltd.	Montgomery
Westeel Products Ltd.	Calgary
Westeel Products Ltd.	Edmonton
Western Sheet Metal Products	Edmonton
Westland Metals Ltd.	Calgary
British Columbia:	
A.A.A. Aluminum Products	North Burnaby
A.B.C. Plating Co. Ltd.	Vancouver
A.L.S. Awning Limited	Burnaby
Ace Sheet Metal Works	Vanderhoof
*American Can Co. of Canada Ltd.	Vancouver
Armco Drainage & Metal Products of Canada Ltd.	Vancouver
Bartlett Sheet Metal Works Ltd.	Vancouver
B.C. Coil Strip Products Ltd.	S. Burnaby
Bumper Platers	Vancouver
Burgess Bead Ltd.	North Vancouver
Coast Coppersmiths	Vancouver
Columbia Metal Rolling Mills Ltd.	Vancouver
Columbia Sheet Metal Products Ltd.	New Westminster
*Continental Can Co. of Canada Ltd.	Burnaby
Cranberry Sheet Metal Ltd.	Cranberry Lake
Expanded Metal Co. of Canada Ltd.	New Westminster
Fairmont Plating Ltd.	Burnaby
Fisher Metal Products	Vancouver
Grant, E.H. & Son Ltd.	Vancouver
Hoberth Culverts & Metal Products	Vancouver

* Tin can manufacturers mostly.

List of Establishments, 1962 - Concluded

Name of firm	Location of plant
British Columbia - Concluded:	
Hudson Plating Co. Ltd.	Vancouver
Hunt, F.W. Manufacturing Co.	Burnaby
Industrial Chrome & Metallizing	Prince George
Kenmade Sheet Metal Ltd.	Vancouver
Kent Metal Products Ltd.	Vancouver
Kingston Sheet Metal Works Ltd.	Victoria
Leland Mfg. Co. Ltd.	Vancouver
McRae Metal Stamping	Burnaby
Metalcraft Limited	Vancouver
Metal & Wood Products (1958) Ltd.	Vancouver
Model Sheet Metal Works	Victoria
Monarch Steelcraft, Ltd.	Vancouver
Nelisen Sheet Metal Ltd.	Penticton
Nelson Blower Co. Ltd.	Vancouver
Nesco Aluminum Ltd.	Vancouver
Pacific Pipe & Flume Limited	Penticton
Peerless Metal Products Ltd.	Hammond
Port Metal Products Ltd.	Vancouver
Quest Metal Works Ltd.	Vancouver
Rosco Metal Products Ltd.	Vancouver
Rupert Sheet Metal Ltd.	Prince Rupert
Steveston Sheet Metal Works	Steveston
Superior Plating Works	Vancouver
Surrey Sheet Metal	Cloverdale
Thom, W.A., Sheet Metal Works Ltd.	Vancouver
Tidy, D. Welders Ltd.	North Surrey
Terminal Sheet Metal Works Limited	Vancouver
United Industrial Plating Limited	Vancouver
Vancouver Island Platers	Victoria
Vancouver Plating Works Ltd.	Vancouver
Vancouver Spinning	Vancouver
Van Metal Products, Ltd.	Burnaby
Victoria Plating	Victoria
*Vulcan Containers (Canada) Ltd.	New Westminster
Westeel Products Ltd.	Vancouver
Western Coastwise Service Ltd.	Vancouver
Westland Metals Ltd.	Vancouver
Westmetco Sheet Metal Ltd.	New Westminster
William, Stan Mfg. Co. Ltd.	New Westminster

* The can manufacturers mostly.

EXPLANATORY NOTES

This report is one in a series of about 140 publications which present the results of the 1962 Census of Manufactures. Most reports in this series refer to specific industries, but there are summary reports for Canada and the provinces and special reports on geographical distribution and on type of ownership and size of establishments.

With the publication of the results of the 1962 Census of Manufactures, the Bureau has completed a major revision in the classification and concept of its annual census of manufacturing establishments. Because of its size and complexity, this project had to be carried out in three stages. The first stage was the change in classification and the results of the 1960 Census, together with the re-compilation of the 1957, 1958 and 1959 Censuses were published in the 1960 reports on the basis of the revised Standard Industrial Classification. This part of the project was confined entirely to a re-coding of existing reporting units. The second stage consisted of the implementation of the new definition of the reporting unit i.e. "establishment" as it applied to **manufacturing activities** of manufacturing establishments (See following note on "Establishment"). Results of the 1961 Census reflected this change in concept and, in order to provide comparability of data for recent years, the 1961 reports contained principal statistics on the basis of the new establishment definition for years back to 1957.

The third stage which was the extension of the definition of the establishment to cover **total activities** of manufacturing establishments is reflected in the statistics for 1961 and 1962 contained in this report. This full implementation of the new definition of the establishment has resulted in an extension of the data to non-manufacturing activities of manufacturing establishments and in additional changes in the 1961 statistics of manufacturing activities. Statistics on manufacturing activities will continue to be shown separately as in the past but, beginning with 1961, data on all operations (total activity) of manufacturing establishments will also be given. By definition "total activity" relates to all operational data and excludes such non-operational items as rent, interest and dividends. In addition, statistics on man-hours paid will be included as part of the regular series of industry statistics. For many industries, adjustments and revisions were made to the 1961 data on **manufacturing activities** which were published during the second stage to bring them in line with reporting procedures followed in the 1962 Census and to reflect the final application of the new concept. The 1961 statistics on manufacturing activities contained in this report are thus not entirely comparable with those published in the 1961 reports. However, the 1961 statistics are shown in this publication in both their original and revised forms in order to provide a link with the immediate past. A more complete account of recent changes and additions and brief descriptions of the principal industry statistics are given in following sections of these notes.

Standard Industrial Classification

The revised Standard Industrial Classification which was introduced with the 1960 Census of Manufactures and applied to the results of the 1957, 1958 and 1959 censuses provides for a breakdown of the manufacturing universe into 140 industries arranged in 20 major groups. Custom Tailoring Shops is the only industry class in the Manufacturing Industries Division of the classification which is not covered in the annual Census of Manufactures. It is surveyed as part of the Decennial Census of Merchandising and Service Establishments. Of the 140 "three-digit" industry classes in the Manufacturing Industries Division, 21 are further broken down into 67 "four-digit" sub-classes. With the exception of the Wood Preservation and Sound Recording industries, the figures for which are at present confidential and have to be included with those of related industries, the statistics for all of the "four-digit" sub-classes are published regularly. Thus, at the Canada level, principal statistics are compiled for 183 industries. These cannot all be published separately by province because of the confidential nature of the data in certain provinces.

Reporting establishments are classified or allotted to specific industries in the classification system on the basis of the value of principal products made or shipped. In general, establishments primarily engaged in repair work (Shoe Repair Shops, Motor Vehicle Repair Shops etc.) are not included in manufacturing industries. Exceptions are establishments primarily engaged in furniture, ship, boat, aircraft and railroad rolling stock repairs which are classified to the manufacturing industries producing the products involved. Establishments primarily engaged in assembling parts into complete units have always been included in manufacturing industries.

Full details concerning the revised classification system are contained in the Standard Industrial Classification Manual, Catalogue No. 12-501, which is available from either the Queen's Printer or the Dominion Bureau of Statistics.

It should be noted that two new industries (Poultry Processors and Dental Laboratories) and three new groups of establishments (book publishers in the Publishing Industry, electro-plating establishments in the Metal Stamping, Pressing and Coating Industry and prescription branches in the Ophthalmic Goods Manufacturers Industry) have been included in the 1961 (revised) and 1962 Census statistics and will continue to be included thereafter. They were surveyed for the first time in the 1960 Census (1961 Census in the case of prescription branches) in line with the revised classification but, since they did not represent new production, they were removed from the 1960 and 1961 compilations published in the 1961 Census reports in order to provide complete comparability of data over the period 1957-61. Statistics for this period are repeated in the 1962 reports to supply a link with the revised 1961 data and the new 1962 statistics.

Establishment

The reporting unit in the Census of Manufactures is the **establishment**. The majority of establishments are firms, but many firms have more than one manufacturing establishment. Such firms are requested to submit a separate Census of Manufactures report for each manufacturing establishment which can meet the reporting requirements described below.

Beginning with the 1961 Census of Manufactures the establishment is defined as follows:

"The smallest unit which is a separate operating entity capable of reporting all the following principal statistics:

Materials and supplies used,
Goods purchased for resale as such,
Fuel and power consumed,
Number of employees and salaries and wages,
Inventories,
Shipments or sales."

Following is a description of the main features of the new establishment concept introduced in the 1961 Census, how they differ from those of the old "activity" concept and the steps taken to correct for breaks in continuity.

(a) The establishment is to be distinguished from smaller subdivisions or departments which do not have records that permit them to report all items required of an establishment. Prior to 1961, some establishments were required to submit two or more separate reports when they were engaged in activities which were classifiable to different industries. Beginning with 1961, separate reports for such activities are required only in cases where accounting records can provide the necessary input and output elements of principal statistics. Special reporting arrangements were made with respondents when the acceptance of combined reports would have seriously affected the statistics for particular industries or areas. Where continuity of industry statistics was affected by this change in reporting procedures, adjustments to the data were made back to 1957 in order to maintain comparability of the series for recent years.¹

(b) A manufacturing establishment is typically a factory, mill or plant principally engaged in manufacturing activities. Prior to 1961, the Census of Manufactures attempted to cover the manufacturing activities of all establishments, whether or not they were primarily engaged in manufacturing. Beginning with the 1961 Census, establishments (accounting entities) which are not primarily engaged in manufacturing are no longer included as manufacturing establishments in the basic industry statistics.¹

Again, adjustments were made to reflect the removal of such reporting units for the period 1957-60. These reporting units are now listed as establishments in other Bureau surveys, such as Wholesale Trade, Construction etc. This has resulted in a somewhat smaller universe represented by the Census of Manufactures. In terms of overall 1960 Census results, the number of establishments transferred to other industries totalled 2,786 or 8% but these represented only 0.7% of total employment and of total value of shipments of manufactured products. In order, however, to maintain complete coverage of certain commodity items produced mainly in manufacturing establishments, many non-manufacturing establishments are now surveyed by the Industry Division for commodity shipments only and the latter are included in those tables of industry reports showing shipments of certain commodities "from all industries".

(c) A manufacturing establishment may be, and often is, engaged in other activities in addition to its principal manufacturing activity. Prior to 1961 the main emphasis in the Census of Manufactures was on manufacturing activity. Beginning with 1961, each establishment reports on all the activities carried out within its accounting boundaries (except income from investments such as rent, interest and dividends) and data on different activities (manufacturing, trading in goods not of own manufacture, construction by own labour force, revenue from services etc.) are requested separately. However, the statistics published in the 1961 reports were confined to manufacturing activity only in order to maintain comparability with previous years and to permit a more thorough audit of the new data. The 1962 reports contain principal statistics on total activities of manufacturing establishments for 1961 and 1962 with the main elements of manufacturing activity shown separately as in the past. It should be noted that the statistics for separate activities are not completely consistent. Some respondents cannot distinguish in their records materials, shipments and inventories relating to own manufacturing activities from those relating to goods not of their own manufacture or to other activities and can report operational data in total only under manufacturing activity. This situation has always existed, however, and is not considered important enough to invalidate the use of the data in the measurement of manufacturing as an "activity". The values assigned by the respondent to materials and shipments of own manufactured goods include costs in varying degrees that relate to internal (to the establishment) transportation, warehousing and selling activities, but it is not possible to make adjustments to arrive at a uniform valuation for manufacturing activity only; although valuation at the establishment "boundary" must be accepted, the items valued under manufacturing activities still relate, in most cases, to "goods of own manufacture". In the case of employment only data on manufacturing production workers and manufacturing man-hours can be assigned, in total, to manufacturing activity; administrative and office employees can seldom be allocated to separate activities.

¹ Most of these adjustments were made when the results of the 1961 Census were being compiled. Since publication of these results in the 1961 reports additional adjustments were made to the 1961 data, as noted earlier, and these are reflected, where applicable, in the revised 1961 statistics contained in this report.

Complete consistency, therefore, can be obtained only at the "all operations" (total activity) level, and for studies or statistical measures requiring accurate co-ordinated data, the "total" statistics should be used.

(d) Additional changes resulted from intensive editing and follow-up consistent with the introduction of the new concept. An example of such changes is the provision for the elimination, in total, of sales taxes and outward transportation charges from value of shipments. Prior to 1961, although the value of shipments for each product was requested excluding taxes and transportation charges, no allowance had been made for the reporting of these items in total when the respondents' records did not permit their deduction from the values of the individual products. Another example is a change in the valuation of shipments where, prior to 1961, a manufacturing company operating warehouses or sales outlets was reporting value of shipments in terms of an estimated manufacturer's price in accordance with the old activity concept, even though his records were not kept on this basis. Since the accounting boundary in such cases extends to distribution operations, the respondent was instructed in 1961 to report shipments at the final selling price in order to obtain more realistic and accurate data.² Adjustments were made to the value of shipments for the period 1957-60 to reflect such changes and maintain continuity of the shipments data. Since no actual data to make these corrections were available for back years, 1961 adjustment ratios were applied to the previous years for each industry affected, on the assumption that the valuation changes in 1961 applied in equal proportions to the preceding period.³

(e) The new concept also demands that inventories held apart from plant be included with plant inventories if establishment boundaries extend to warehouses and sales outlets. Prior to 1961, compilations took into account only the inventories held at plant. In this case, however, most of the missing data were available from supplementary questions in the Annual Census and from the Monthly Inventories and Shipments Survey and actual corrections could be made for previous years.

² Some manufacturing firms operate sales branches or selling warehouses as separate sales establishments for which complete accounting records of receipts, expenses, employment and sales are maintained. In such cases the plants, in effect, "sell" to the sales outlets on much the same basis as they would to independent buyers. The value of plant shipments is based on factory prices and the "boundary" of the manufacturing establishment does not extend beyond the plant. The sales outlets in such cases constitute separate sales establishments and are classified to wholesale or retail trade. Some sales outlets of manufacturing firms, although they physically handle products of the plants, do not maintain separate accounts and are generally treated for statistical purposes as extensions of manufacturing operations. Special arrangements were made for separate reporting in a few cases where the treatment of such outlets as manufacturing extensions would seriously affect the significance of statistics for particular manufacturing and trade industries.

³ See footnote 1.

(f) Prior to 1961 the Census of Manufactures did not have complete coverage of head and administrative offices and had never surveyed separate sales offices, warehouses or laboratories operated by manufacturing firms. Beginning with the 1961 survey, complete coverage of these auxiliary units was effected. In the past the employment and salaries and wages of those head and administrative offices that were surveyed were either coded in total to the industry in which the greatest portion of the company's manufacturing activities was classified or else, in the case of certain large multi-unit firms with establishments in several industries, were pro-rated among the different industries involved. In the original 1961 statistics published in 1961 reports, the same coverage and treatment of head offices was applied to maintain comparability over the 1957-61 period. Beginning with the revised 1961 statistics, all head offices and auxiliary units are covered and are processed according to the methods described below.

1. Single-Establishment Companies

In the great majority of cases central administrative and executive personnel of companies consisting only of one establishment are generally located at the site of the manufacturing plant and are automatically included in the plant reports. Where head offices and auxiliary units are geographically separate from plant locations and employ a sizeable number of workers they are surveyed on special questionnaires.

Separately located head offices, sales offices, administrative offices and other separate auxiliary units (laboratories, warehouses, etc.) do not usually constitute separate establishments⁴ for purposes of industry statistics since they do not normally generate operational revenues but give rise only to costs of operation (mainly salaries and wages) which make up part of the selling price of manufactured products and which are thus included in the value of shipments or sales. Where such units belong to single-establishment companies, they will be considered as extensions of the establishment's boundaries and their operations consolidated with the establishment's total activity.

2. Multi-Establishment Companies

In the case of companies with more than one establishment the following rules are applied:

(i) Where all the establishments of a company are classified to the same (three-digit) industry, the head office and other auxiliary units are coded to that same industry.

(ii) Where the establishments of a company are not all classified to the same (three-digit) industry but are coded to different industries, or industries in different industry groups or even different divisions

⁴ See footnote 2 for exceptions.

of the Standard Industrial Classification, the inclusion of data for head office and auxiliary units in any one of the (three-digit) industries concerned would distort the relationship between items of principal statistics. In such cases, the auxiliary units are coded at the group (two-digit) level in tabulations of industry statistics. Where multi-establishment companies cut across group or major division lines of the Classification, the head office and auxiliary units will be coded to the (two-digit) industry group in which the major part of the company's operations are classified. Although this may result in some distortion of (two-digit) industry group statistics it will eliminate distortion within groups as it will leave statistics at the (three-digit) industry level free of these company-wide data.

Period Covered

Respondents 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 respondents find it impossible to supply calendar year data from accounting records. However, the data on employees, salaries, wages and man-hours are requested on a calendar year basis in all cases.

When establishments are operated for only a portion of a year, a report is required covering the period of operation.

Working Owners or Partners

Beginning with the revised 1961 statistics working owners and partners of unincorporated businesses are shown as a separate category in the principal statistics and are neither included in the number of employees nor in salaries and wages; there is some duplication in numbers when a person owns more than one establishment and is reported as a working owner on each census return. In all previous reports of the Census of Manufactures these workers were included as part of the number of administrative and office employees and their withdrawals were included as part of salaries. Withdrawals are defined as amounts withdrawn by owners or partners for normal living expenses, excluding withdrawals for payment of income tax.

Number of Establishments

The number of establishments represents the number of operating units (accounting entities as per the new definition of the establishment) for which separate reports are submitted. Head offices located apart from establishments and which are surveyed separately and separate sales and administrative auxiliaries that are treated as extensions of manufacturing activities are not included in the establishment count. However, the operational statistics (employment, salaries etc.) of such auxiliary units which are coded at the "three-digit"

level are included in the principal statistics of industries coded at the same level; those units coded at the "two-digit" level are included with the statistics for groups of industries.

Employees

As noted above, the number of working owners and partners are excluded from the number of employees, beginning with the revised 1961 statistics. This change brings the definition of "employees" in the Census of Manufactures in line with that of "employees" in the Bureau's monthly Employment Survey and with that of "paid workers" in the Bureau's Labour Force Survey. For purposes of historical comparisons, the number of working owners and partners should be added to total employees (beginning with the revised 1961 data) in order to correspond with the figure of "total employees" published in previous reports concerned with the Annual Census of Manufactures.

In addition to production and related workers engaged in manufacturing activities, total employees include administrative, office, sales and distribution workers as well as any production workers employed in non-manufacturing activities such as construction undertaken for the use of the establishment by its own employees (when these are treated as a separate work force) or logging (mostly in connection with sawmills or planing mills). Number of employees represents as closely as possible equivalent annual full-time employment. Adjustments are made when reported figures indicate the existence of part-time or seasonal employment.

Administrative and office employees include all executive and supervisory officials such as presidents, vice-presidents, controllers, secretaries, treasurers etc., together with managers, professional, technical and research employees, superintendents and factory supervisors above the working foreman level, and clerical staffs. Also included are employees in activities such as advertising, credit collections, purchasing, personnel, legal, medical etc. Sales and distribution workers include office personnel whose salaries are charged to selling expense, travelling salesmen, driver salesmen, truck drivers and their helpers, etc. They exclude persons working on a commission basis who are not considered regular employees.

Production and related workers in manufacturing activities include, in addition to those engaged in processing and assembling, those employed in storing, inspecting, handling, packing, warehousing, etc. They also include employees in related activities such as maintenance, repair, janitorial and watchman services. Working foremen doing similar work to that of employees they supervise are also included. Production workers employed in non-manufacturing activities such as construction undertaken for the use of the establishment, logging

employees or outside piece-workers employed in certain industries are excluded from the number of production and related workers but are part of the total number of employees in those industries.

Production and related workers are reported as those receiving pay during the last pay period of each month, 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 in order to derive equivalent annual full-time employment. The numbers are somewhat affected by turn over, in that employment is overstated when an employee changes employment within the same industry during a pay period. Other categories of workers are reported in the form of annual averages. Figures on employment and man-hours refer to the calendar year whether or not some establishments report other data on a financial year basis.

Man-hours of production and related workers in manufacturing activities represent total man-hours paid (total hours at work during the calendar year plus hours not worked but nevertheless paid for, such as paid vacations, sick leave, statutory holidays etc.). In reporting overtime hours, respondents are requested to report only hours actually at work. It should be noted that the division of hours paid into production and related workers payrolls results in **average** hourly earnings and does **not** represent hourly wage rates which are collected and published by the Department of Labour and which are based on selected occupations.

Salaries and Wages

Salaries and Wages refer to gross earnings of the employees described above, **before** deductions for income tax and employees' contributions to social services such as sickness, accident and unemployment insurance, pensions etc. They include all salaries, wages, bonuses, profits shared with employees, the value of room and board where provided, commissions (paid to regular employees only), as well as any other allowance forming part of the workers' earnings. Payments for overtime are included.

Wages refer to amounts paid to production and related workers engaged in manufacturing operations as defined above. Salaries refer to amounts paid to all other categories of employees including relatively small numbers of production workers engaged in construction and extractive operations or who are employed as outside piece-workers. Figures on salaries and wages refer to the calendar year whether or not some establishments reported other data on a financial year basis.

Fuel and Electricity

Figures for fuel refer to amounts actually used (including fuel used in cars, trucks, locomotives etc.) not to purchases unless the quantities are

substantially the same. **Any fuel and electricity produced by establishments for internal consumption are not included in the total cost.** Values represent laid-down cost at the establishment including freight, duty etc.

Materials and Supplies

(a) Used in manufacturing activities. Figures represent quantities and laid-down cost values, at the establishment, of materials, supplies and purchased components owned and used during the year in manufacturing activities and related processes. The statistics represent only commodity items or physical goods (costs of services or overhead charges such as advertising, insurance, depreciation etc. are not included) whether purchased from others or received as transfers (in the form of materials, components or semi-processed goods) from other establishments of the reporting company. Respondents are required to report materials and supplies **used** not **purchased**. Included are maintenance and repair supplies not chargeable to fixed assets accounts and any amounts charged by other establishments for work done on materials owned by the reporting establishment. Cost of repairs or maintenance done by outside contractors and cost of returnable containers are not included.

(b) Purchases for resale as such. Figures represent the cost of materials or products purchased from others by the reporting establishment (or received as transfers from other establishments of the reporting company) for re-sale as such in the same condition as purchased. Included are any finished products received on consignment from other countries.

(c) Other materials and supplies used. Figures represent the cost of materials and supplies, if any, used in new construction and in the production of machinery and equipment (for the use of the reporting establishment) by the establishment's own employees. Included are materials used for any capital repairs and alterations carried out by the establishment's employees. Value of construction and repair work done by outside contractors is not included nor is the cost of purchased machinery and equipment. Also included is the cost of office supplies not chargeable to fixed assets accounts and the cost of such other items of materials and supplies used as food, beverages and supplies for establishment-operated cafeterias and lunch counters, first aid medical supplies, laboratory supplies etc.

Shipments

In general the figures represent revenue from all production, sales, services and related activities of reporting establishments. Non-operating revenues such as rent, interest and dividends and the sale of used fixed assets are excluded.

(a) Shipments of goods of own manufacture

These figures represent shipments of goods made from own materials either in the reporting establishments or by other manufacturers on the basis of a charge to the reporting establishments for work done. Included are revenue from repair and custom work, amounts received in payment for work done on materials owned by other establishments and the cost of any goods shipped on a rental basis.

All products and by-products of own manufacture shipped from the establishment are covered, including transfer shipments to sales outlets, distributing warehouses or to other manufacturing plants of the reporting firm when such units are treated as separate establishments. (See notes on "Establishment").

Such shipments are net of returned goods, and value figures at the establishment exclude discounts, returns, allowances, sales taxes and excise duties, returnable containers, and charges for outward transportation by common or contract carriers. Transportation or delivery expenses incurred by the reporting establishments' own carriers are not deducted.

The unsold portion, at year-end, of consignment shipments in Canada, is treated as inventory and not as shipments, but all shipments to foreign countries, for which form B.13 "Customs Canada, Export Entry" has been completed, are treated as shipments.

In four industries, viz. Fabricated Structural Metal Industry, Aircraft and Parts Manufacturers, Railroad Rolling Stock Industry and Shipbuilding and Repair, where work on principal products extends over a relatively long period, the value of production, rather than the value of shipments, is recorded. For these industries value of 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 units delivered in the year under review. Adjustments to the value of shipments are also made for firms in these industries and in some other industries which operate on the basis of progress payments. The latter are treated as sales and not as inventory, so that for firms which use a progress payments account, an adjustment to the value of shipments is made for the net change in this account during the year.

(b) Shipments of goods not of own manufacture

These figures represent the net selling value at the establishment (less discounts, returns, allowances, sales taxes and excise duties and transportation charges by common or contract carriers) of all products or materials (including products transferred from other establishments of the reporting firm) sold as such in the same condition as purchased or received as transfers. For those industries which ship goods on a rental basis value of shipments represents the book value of such goods. All sales of consignment goods from other countries are included.

(c) Other revenue

Figures represent the book value of fixed assets, if any, (new construction and machinery and equipment including major repairs and alterations, additions, modifications, installation and assembly work) produced during the year for the use of reporting establishments by the establishments' own employees and for which depreciation accounts are maintained. Included also are any revenues from the sale of electricity and from any operations performed by the establishments' own employees, such as revenue from goods produced for rental (the book value of such goods are included as part of factory shipments), servicing revenues, commissions on sales (when not included in value of sales), revenue from company-operated cafeterias and lunch counters and revenue from outside installation or construction work not related to the establishments' own products, sale of used materials (excluding sale of used fixed assets), research and development work etc. As mentioned previously the figures do not include non-operating revenue such as rent, dividends, interest, etc.

Inventories

(a) Manufacturing inventory

Values represent the book value of manufacturing inventory owned in Canada. The value of inventory held for which progress payments have been received is treated as shipments and is not included in inventory owned. Figures consist of inventory owned at the plant and at warehouses or selling outlets which are treated as extensions of establishments for the purpose of reporting shipments. Inventory owned in transit in Canada or on consignment in Canada is included. Inventory owned abroad has already been reported as shipments and is excluded.

(b) Inventory of goods purchased for re-sale

Figures represent the book value of inventory of goods purchased for re-sale as such without further processing, owned by reporting establishments and held at the plants and at any warehouses or selling outlets which are treated as extensions of establishments. Inventory owned in transit in Canada or on consignment in Canada is included.

Because of changes in classification, the receipt of revised data, the inclusion of new establishments or the removal of old establishments which did not operate during the latest year, the opening inventory for the latest year does not necessarily coincide with the closing inventory of the preceding year.

Value Added

(a) By manufacturing activities

Figures are compiled by deducting the cost of materials and fuel and electricity consumed from the value of production (value of shipments adjusted for changes in the value of inventories of finished goods and goods in process).



1010698462

(b) By total activities

Figures consist of value added by manufacturing activities plus value added by non-manufacturing activities and is compiled by deducting the cost of goods purchased for re-sale and the cost of other materials and supplies used from the value of shipments of goods not of own manufacture plus other revenue, adjusted for changes in the value of inventories of goods purchased for re-sale.

"Value added" is sometimes referred to as net production. However, to arrive at the National Accounts concept of net production, or "Gross domestic product at factor cost", it would be necessary to subtract also the cost of advertising, insurance and other business expenses which are not collected in the annual Census of Manufactures. "Value added" figures for the primary industries, manufacturing and construction are published in DBS publication Catalogue No. 61-202, Survey of Production.

Short Forms

Since 1949, in order to ease the reporting burden for smaller firms, a one-page short form has been used asking for only a limited amount of detail. For purposes of publication, missing data were estimated on the basis of appropriate ratios. Beginning with the 1959 census, the general limit for short forms was raised from \$50,000 (the limit used since 1949) to \$100,000 value of shipments and a new medium form was used. This form is a shortened version of the long form in that some 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 medium forms there are lower cut-offs for a number of industries in which the smaller firms account for a larger share of total shipments.

Prior to 1961, the short form was limited to a question on the principal items of factory shipments. In the 1961 and 1962 censuses, in addition to the question on shipments of goods of own manufacture, general questions on employment and payroll and on total revenue were added on all short forms. The other elements of principal statistics, viz. value of materials, fuel and electricity and inventories, were estimated by using ratios based on the change in the value of shipments reported in 1961 and 1962. This was done to permit the complete compilation of basic industry statistics by industry and by geographic location. The proportions of the estimated data was generally less than 5 per cent of the total in each category of principal statistics.

Beginning with the 1963 census, general questions on total purchases of materials, fuel and electricity and on total inventory were added on the short forms. The two questions, however, were designed so that the data can be easily derived from respondents' regular accounting records. This will permit a complete tabulation of principal statistics without the necessity of estimating missing items and will result in increased accuracy for rural area statistics where small firms account for a relatively important part of industrial output.

The addition of extra questions on the short form in recent years has also permitted an increase in the cut-off limits for short forms in many industries. This has meant that many more firms are now receiving the short form instead of the long or medium form. It has also resulted in the withdrawal of the medium form in a number of industries, thus further simplifying collection and tabulation procedures.