

CATALOGUE No. ²⁷

41-228

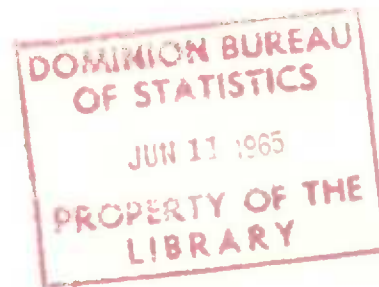
ANNUAL



MISCELLANEOUS METAL FABRICATING INDUSTRIES

1962

ANNUAL CENSUS
OF MANUFACTURES



Published by Authority of
The Minister of Trade and Commerce

DOMINION BUREAU OF STATISTICS
Industry Division

June 1965
6521-816

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.
- p preliminary figures.
- r revised figures.

UNIVERSITY OF
2572
LIBRARY

MISCELLANEOUS METAL FABRICATING INDUSTRIES

1962

Data presented in this report under the heading of Miscellaneous Metal Fabricating Industries 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 Miscellaneous Metal Fabricating Industries in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in manufacturing metal products not elsewhere classified, such as weather stripping, guns, collapsible tubes, machinery fittings, plumber's goods (including enamelled plumbing fixtures), safes and vaults, and forgings such as chains, (except tire chains, see Industry No. 305—Wire and Wire Products Manufacturers), anchors and axles. Also included are establishments primarily engaged in fabricating bars and rods for reinforcing concrete.

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. Refer to the Explanatory Notes section of this report for a more detailed explanation. For the most part the changes in the manufacturing activity of the industry under review resulting from the implementation of the final stage of the establishment concept were of a relatively minor nature as reflected in the comparative series of Statistics included in Tables 1 and 1A.

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	283	14,015	48,487	4,339	19,188	18,354	67,675	4,551	86,354	201,529	...
1958	279	11,677	41,934	3,838	18,077	15,515	60,011	4,099	80,245	166,031	99,724
1959	279	11,575	44,003	3,953	19,568	15,528	63,571	4,101	86,141	208,299	119,281
1960	317	11,256	44,037	3,974	20,307	15,230	64,344	4,137	90,533	209,375	115,479
1961	331	11,025	43,993	3,574	18,575	14,599	82,568	4,006	95,286	218,977	117,508

See footnotes following Table 3 A.

TABLE 1A. 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 ⁶		Total employees ⁷		Total value added ⁴
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000		\$'000				\$'000		\$'000		
1961													
Newfoundland	1	614	1,291	2,241	307	3,613	9,900	5,156	-	-	763	3,051	5,342
Nova Scotia	2												
New Brunswick	2												
Quebec	54	1,972	4,293	7,842	692	14,054	36,154	21,472	15	48	2,984	12,936	22,855
Ontario	211	7,581	15,439	30,524	2,723	68,428	153,419	81,888	60	245	10,328	45,010	84,663
Manitoba	12	347	730	1,441	100	4,274	8,728	4,327	10	41	507	2,374	4,484
Saskatchewan	5	58	119	221	19	809	1,582	749	¹⁰	¹⁰	88	410	839
Alberta	7	110	239	403	25	810	2,249	1,452	¹⁰	¹⁰	145	555	1,497
British Columbia	37	296	569	1,321	140	3,281	6,713	2,979	4	16	434	2,106	3,159
Totals	331	10,978	22,680	43,993	4,006	95,269	218,745	118,023	94	368	15,249	66,442	122,839
1962													
Newfoundland	1	641	1,379	2,468	368	4,730	9,815	5,240	-	-	785	3,243	5,226
Nova Scotia	2												
New Brunswick	2												
Quebec	56	1,947	4,186	8,023	575	14,301	35,841	21,044	15	50	2,868	12,438	21,839
Ontario	215	8,222	17,000	34,220	3,128	78,512	175,916	96,723	55	245	11,278	50,673	99,282
Manitoba	12	350	738	1,490	110	4,735	9,138	4,250	12	47	519	2,428	4,383
Saskatchewan	6	81	127	244	24	785	1,642	825	¹⁰	¹⁰	118	491	883
Alberta	8	157	311	536	29	823	2,274	1,381	¹⁰	¹⁰	190	671	1,435
British Columbia	36	383	671	1,569	154	4,436	8,913	4,213	¹⁰	¹⁰	525	2,433	4,452
Totals	338	11,781	24,413	48,550	4,389	108,320	243,538	133,875	88	362	16,283	72,377	137,479

See Table 2 and footnotes following Table 3 A.

TABLE 1 B. 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 Concept²

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and elec- tricity ¹	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁵		Total employees ⁷		Total value added ⁸
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
No.	'000							'000		'000			
1961													
Under \$10,000	26	5	6	10	5	51	146	95	15	22	19	35	100
\$ 10,000 to \$ 24,999	38	40	62	107	16	252	644	373	27	98	64	168	404
25,000 " 49,999	30	75	134	240	30	362	1,060	661	21	86	102	326	671
50,000 " 99,999	43	202	380	690	77	1,231	3,283	1,974	21	99	286	1,047	2,137
100,000 " 199,999	49	477	973	1,712	136	2,833	7,272	4,089	6	30	645	2,527	4,263
200,000 " 499,999	49	770	1,547	2,768	265	7,752	15,863	7,755	-	-	1,114	4,518	8,247
500,000 " 999,999	36	1,406	2,982	4,931	372	12,253	26,372	13,610	4	34	1,880	7,442	13,564
1,000,000 " 4,999,999	54	5,442	11,203	21,557	2,090	53,067	114,884	58,459	-	-	7,800	32,899	61,603
5,000,000 and over	6	2,561	5,394	11,978	1,015	17,468	49,221	31,006	-	-	3,539	17,479	31,851
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	331	10,978	22,680	43,993	4,006	95,269	218,745	118,023	94	368	15,249	66,442	122,839
1962													
Under \$10,000	15	5	8	13	4	30	105	66	13	36	7	17	79
\$ 10,000 to \$ 24,999	34	28	50	90	15	200	575	361	27	90	44	137	371
25,000 " 49,999	34	72	143	253	24	410	1,197	765	20	84	104	367	774
50,000 " 99,999	42	180	355	665	60	1,193	2,981	1,725	20	98	260	961	1,800
100,000 " 199,999	52	424	880	1,523	153	2,961	7,430	4,464	5	23	626	2,514	4,871
200,000 " 499,999	61	954	1,901	3,566	291	10,322	21,251	10,711	1	5	1,342	5,676	11,380
500,000 " 999,999	35	1,578	3,282	5,658	504	11,695	25,214	13,478	-	-	2,053	8,387	13,810
1,000,000 " 4,999,999	57	5,308	11,185	21,738	1,961	59,998	119,418	58,996	2	25	7,453	32,809	60,917
5,000,000 and over	8	3,232	6,629	15,044	1,377	21,510	65,367	43,108	-	-	4,394	21,511	43,476
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	338	11,781	24,413	48,550	4,389	108,320	243,538	133,675	88	362	16,283	72,377	137,479

See footnotes following Table 3 A.

TABLE 1 C. Principal Statistics classified by Size Groups based on Manufacturing 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 ¹	Cost of materials and supplies used ⁴	Value of shipments of goods of own manu- facture ⁴	Value added ⁴	Working owners and partners ⁵		Total employees ⁷		Total value added ⁸
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
No.	'000							'000		'000			
1961													
Under \$10,000	48	17	25	40	12	266	509	230	29	67	48	106	240
\$ 10,000 to \$ 24,999	45	106	182	328	31	881	1,834	765	33	128	149	485	839
25,000 " 49,999	34	147	272	500	52	1,006	2,413	1,294	13	60	207	727	1,366
50,000 " 99,999	58	463	921	1,614	163	3,892	8,446	4,321	11	64	676	2,576	4,795
100,000 " 199,999	41	637	1,314	2,458	222	8,015	14,135	5,792	6	29	921	4,065	6,145
200,000 " 499,999	47	1,465	3,102	5,359	488	16,419	32,552	15,237	2	20	2,039	8,230	15,293
500,000 " 999,999	34	2,278	4,773	8,947	1,076	27,500	53,176	24,023	-	-	3,073	13,467	24,789
1,000,000 " 4,999,999	22	5,865	12,091	24,750	1,962	37,290	105,680	86,363	-	-	8,136	36,768	69,372
5,000,000 and over	2												
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	331	11,978	22,680	43,993	4,006	95,269	218,745	118,023	94	368	15,249	66,442	122,839
1962													
Under \$10,000	32	12	19	35	11	140	351	188	26	74	19	56	208
\$ 10,000 to \$ 24,999	44	75	148	265	25	606	1,387	759	28	116	111	361	760
25,000 " 49,999	39	152	285	554	54	1,052	2,546	1,354	19	68	227	870	1,852
50,000 " 99,999	60	459	954	1,629	183	4,873	9,435	4,484	12	53	696	2,761	4,940
100,000 " 199,999	47	643	1,284	2,377	156	6,585	13,581	6,959	1	5	898	3,721	7,261
200,000 " 499,999	51	1,681	3,448	6,405	592	22,047	38,188	16,108	2	25	2,268	9,853	16,546
500,000 " 999,999	37	2,405	5,065	9,478	888	29,366	55,923	28,353	-	-	3,301	14,530	27,736
1,000,000 " 4,999,999	25	4,675	9,675	20,020	1,897	38,588	90,413	52,863	-	-	6,500	29,764	53,467
5,000,000 and over	3	1,699	3,535	7,788	584	7,042	31,715	24,607	-	-	2,263	10,441	24,908
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	338	11,781	24,413	48,550	4,389	108,320	243,538	133,675	88	362	16,283	72,377	137,479

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				Total value added ⁸
		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		
		Number	Man-hours paid	Wages					Number	With-drawals	Number	Salaries and wages	
	No.	'000			'000			'000		'000			
1961													
Under \$10,000	47	20	30	53	16	289	527	223	28	63	51	120	220
\$ 10,000 to \$ 24,999	43	94	161	282	25	783	1,587	718	31	116	130	419	757
25,000 " 49,999	35	137	252	459	49	1,080	2,518	1,258	16	76	202	689	1,317
50,000 " 99,999	53	415	812	1,439	144	3,185	7,227	3,778	11	64	573	2,180	3,922
100,000 " 199,999	46	676	1,391	2,582	252	6,937	13,482	6,220	6	29	949	4,092	6,543
200,000 " 499,999	49	1,493	3,170	5,482	482	18,206	34,549	15,441	2	20	2,135	8,690	15,918
500,000 " 999,999	31	2,073	4,352	8,098	1,010	24,523	46,948	21,261	-	-	2,733	11,976	21,557
1,000,000 " 4,999,999	24	4,440	9,070	18,083	1,501	31,189	81,285	48,622	-	-	6,187	27,433	51,482
5,000,000 and over	3	1,630	3,442	7,515	526	9,078	30,623	20,503	-	-	2,289	10,844	21,123
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	331	10,978	22,680	43,993	4,006	95,269	218,745	118,023	94	368	15,249	66,442	122,839
1962													
Under \$10,000	29	10	16	28	9	126	314	167	23	62	17	46	169
\$ 10,000 to \$ 24,999	47	77	151	271	27	620	1,424	780	31	129	113	393	800
25,000 " 49,999	37	131	247	462	43	854	2,170	1,272	19	88	189	666	1,311
50,000 " 99,999	54	399	837	1,440	168	4,063	8,114	3,912	12	53	563	2,186	3,973
100,000 " 199,999	53	714	1,410	2,604	187	7,436	14,941	7,477	1	5	1,036	4,255	8,003
200,000 " 499,999	52	1,614	3,376	6,289	576	21,144	36,968	15,766	2	25	2,226	9,716	16,611
500,000 " 999,999	36	2,270	4,770	8,858	837	28,926	53,899	25,078	-	-	2,966	12,953	25,526
1,000,000 " 4,999,999	27	4,867	10,071	20,810	1,959	38,109	93,993	54,615	-	-	6,910	31,722	56,179
5,000,000 and over	3	1,699	3,535	7,788	584	7,042	31,715	24,607	-	-	2,263	10,441	24,908
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	338	11,781	24,413	48,550	4,389	108,320	243,538	133,675	88	362	16,283	72,377	137,479

See footnotes following Table 3 A.

TABLE 1 E. Principal Statistics classified by Size Groups based on Total Employed,¹¹ 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Size group	Estab-lish-ments	Manufacturing activity							Total activity				Total value added ⁸
		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		
		Number	Man-hours paid	Wages					Number	With-drawals	Number	Salaries and wages	
	No.	'000			'000			'000		'000			
1961													
Under 5 employees	92	89	158	285	42	1,026	2,478	1,383	54	174	151	504	1,446
5 - 14 employees	83	441	891	1,611	170	4,608	10,193	5,337	31	138	658	2,624	5,564
15 - 49 "	87	1,608	3,304	6,096	571	21,429	40,505	18,314	9	56	2,258	9,458	18,971
50 - 99 "	31	1,600	3,384	6,211	522	19,802	37,917	17,403	-	-	2,176	9,664	17,857
100 - 199 "	19	1,834	3,828	6,859	860	15,322	33,670	16,379	-	-	2,531	10,235	16,765
200 - 499 "	16	3,776	7,673	15,415	1,315	24,005	63,359	38,705	-	-	5,186	23,113	41,113
500 employees and over	3	1,630	3,442	7,515	526	9,078	30,623	20,503	-	-	2,289	10,844	21,123
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	331	10,978	22,680	43,993	4,006	95,269	218,745	118,023	94	368	15,249	66,442	122,839
1962													
Under 5 employees	82	81	156	276	38	965	2,260	1,242	60	217	120	419	1,283
5 - 14 employees	94	545	1,114	2,027	231	5,448	12,319	6,768	25	115	789	3,238	6,954
15 - 49 "	86	1,690	3,458	6,584	538	23,207	42,903	19,527	1	5	2,364	10,240	20,779
50 - 99 "	33	1,610	3,353	6,110	493	24,604	43,558	18,974	2	25	2,214	9,631	19,482
100 - 199 "	24	2,377	4,990	9,554	1,062	20,828	43,641	23,091	-	-	3,209	13,644	23,469
200 - 499 "	15	3,303	6,934	13,914	1,035	19,617	55,391	34,580	-	-	4,781	21,918	35,736
500 employees and over	4	2,175	4,408	10,085	992	13,653	43,465	29,494	-	-	2,806	13,287	29,776
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	338	11,781	24,413	48,550	4,389	108,320	243,538	133,675	88	362	16,283	72,377	137,479

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 partners and partners ⁴		Total employees ⁷		Total value added ⁸
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
No.		'000			'000				'000		'000		
1961													
Individual ownerships	53	109	202	351	30	566	1,497	683	52	179	119	384	919
Partnerships	22	132	282	448	40	1,367	2,647	1,253	42	189	154	524	1,284
Incorporated companies	256	10,737	22,194	43,194	3,936	93,336	214,600	115,888	—	—	14,976	65,554	120,635
Cooperatives													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	331	10,978	22,680	43,993	4,006	93,269	218,745	118,023	94	368	15,249	66,442	122,839
1962													
Individual ownerships	46	97	199	344	28	601	1,553	935	48	184	107	384	976
Partnerships	21	97	196	312	35	972	1,988	978	40	177	109	363	989
Incorporated companies	271	11,587	24,017	47,893	4,326	106,747	239,997	131,763	—	—	16,067	71,630	135,515
Cooperatives	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	338	11,781	24,413	48,550	4,389	108,320	243,538	133,675	88	362	16,283	72,377	137,479

See footnotes following Table 3A.

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	218,745	243,538
Add: Closing inventory — Goods in process	15,405	16,774
Finished goods	18,153	19,092
Deduct: Opening inventory — Goods in process	15,861	15,386
Finished goods	19,142	(33,003)
Gross output — Manufacturing activity	217,300	246,384
Deduct: Cost of materials and supplies used in manufacturing activity	95,269	108,320
Cost of fuel and electricity used	4,006	(99,275)
Value added — Manufacturing activity	118,023	133,675
Non-manufacturing activities:		
Value of shipments — Goods not of own manufacture .....	..	24,789
Add: All other revenue .....	..	552
Closing inventory — Goods purchased for resale	3,503	4,731
Deduct: Purchases of goods for resale as such .....	..	20,878
Opening inventory — Goods not of own manufacture	3,405	4,277
Cost of all other materials and supplies used .....	..	(..)
Value added — Non-manufacturing activities	4,816	3,604
Total value added	122,839	137,479

See footnote following Table 3A.

TABLE 3. Employment and Payroll, 1961 and 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Year and province	Employees										Salaries and wages				
	Production and related workers				Adminis- trative and office ^{6,9}		Sales, and distribution ⁹		Total employees ^{7,9}		Production and related workers		Adminis- trative and office	Sales, and distri- bution	Total salaries and wages
	Manufacturing ⁴		Other ⁹		Male	Female	Male	Female	Male	Female	Manufacturing	Other			
	Male	Female	Male	Female											
	number										\$'000				
1961															
Newfoundland															
Nova Scotia															
New Brunswick															
Quebec	584	30	..	..	..	..	..	..	694	69	2,241	..	..	..	3,051
Ontario	1,848	124	..	..	..	..	..	..	2,589	395	7,842	..	..	..	12,936
Manitoba	6,657	924	..	..	..	..	..	..	8,697	1,631	30,524	..	..	..	45,010
Saskatchewan	343	4	..	..	..	..	..	..	474	33	1,441	..	..	..	2,374
Alberta	58	—	..	..	..	..	..	..	82	6	221	..	..	..	410
British Columbia	110	—	..	..	..	..	..	..	138	7	403	..	..	..	555
Totals	9,892	1,086	..	..	..	..	..	..	13,073	2,176	43,993	..	..	..	66,442
1962															
Newfoundland															
Nova Scotia															
New Brunswick															
Quebec	622	19	—	—	84	30	19	11	725	60	2,468	—	595	180	3,243
Ontario	1,833	114	3	—	489	199	184	46	2,509	359	8,023	15	3,456	944	12,438
Manitoba	7,272	950	15	1	1,682	668	572	118	9,541	1,737	34,220	36	12,530	3,888	50,673
Saskatchewan	344	6	1	—	129	28	11	—	485	34	1,490	1	850	87	2,428
Alberta	76	5	3	—	25	8	1	—	105	13	244	8	234	4	491
British Columbia	157	—	1	—	27	5	—	—	185	5	536	4	132	—	671
Totals	10,680	1,101	23	1	2,533	972	798	175	14,034	2,249	48,550	64	18,571	5,192	72,377

See footnotes following Table 3 A.

TABLE 3A. Production and Related Workers,⁴ - Manufacturing Activity, by Months, 1962
Basis: Revised Standard Industrial Classification and New Establishment Concept²

Month	Establishments reporting monthly detail	
	Male	Female
	number	
January	9,205	1,022
February	9,399	987
March	9,460	1,015
April	9,549	1,052
May	9,822	1,062
June	9,975	1,088
July	9,819	1,069
August	10,002	1,127
September	9,926	1,123
October	9,845	1,071
November	9,610	1,058
December	9,274	1,013
Average for establishments reporting monthly detail (collected only for large establishments)	9,702	1,059
Average for small establishments (only annual averages collected)	978	42
Average for all establishments	10,680	1,101

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), administrative 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 Confidential data.

¹¹ 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:		
Castings (rough and semi-finished received from foundry):		
Iron (gray and malleable)	ton 6,159	2,248
Steel	" 4,618	2,547
Iron:		
Pig iron	" 10,310	785
Steel:		
Bars and rods	" 128,459	16,255
Pipe and fittings	"	6,162
Plates	ton 30,957	4,099
Sheets:		
Black	" 11,435	2,368
Galvanized	" 739	143
Strip	" 2,852	684
Structural shapes	" 6,830	1,270
Wire	" 6,061	1,001
Alloy steel in all forms:		
Stainless:		
Billets, bars and rods	"	356
Other	"	4,286
Other alloy and tool steel (including carbon, alloy and high speed steels):		
Billets, bars and rods	"	3,537
Other	"	990
Scrap iron and steel:		
Purchased	ton 30,012	1,100
Own make (tonnage only)	" 7,453	...
Other iron and steel	"	3,014
Ferro-alloys	"	110
Non-ferrous metals:		
Aluminum:		
Castings	lb. 719,296	498
Sheet	" 824,645	428
Other forms	" 5,364,577	2,581
Brass and bronze	" 45,331,765	14,565
Copper:		
Sheet	" 776,413	401
Wire	" 370,900	167
Other forms	" 1,458,614	704
Lead	" 3,477,841	380
Nickel	" 112,665	112
Tin	" 265,693	201
Zinc	" 2,215,152	464
Babbitt metals and solders	" 152,965	115
Other non-ferrous metals	"	589
Paints, oils and varnishes	"	341
Foundry coke	ton 8,226	303
Foundry sands	" 27,318	312
Plumbago and graphite	lb. 733,807	30
Lumber	M bd. ft. 1,324	149
Firebrick and cupola blocks	"	131
Fireclay	ton 1,692	77
Core oil	Imp. gal. 41,515	45
All other materials and components used ²	"	22,163
2. Containers and other packaging materials and supplies used		1,744
3. Operating, maintenance and repair supplies used (excluding fuel)		7,040
4. Amount paid out to others for work done on materials owned by establishments		3,805
Total		108,320

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 \$7,029,711.

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 2,790	47
(b) Imported	" 21,400	238
Sub-bituminous coal (from Alberta mines only)	ton -	-
Anthracite coal	" 59	1
Lignite coal	" 367	4
Coke	" 227	10
Gasoline (including gasoline used in cars and trucks)	Imp. gal. 534,033	199
Fuel oil including kerosene or coal oil	" 8,754,684	985
Wood	cord 68	1
Gas:		
(a) Liquefied petroleum gases	Imp. gal. 93,993	24
(b) Other manufactured gas	M cu. ft. 3,704	5
(c) Natural gas	" 1,275,387	861
Other fuel	-	-
Electricity purchased	kwh. 136,940,960	1,654
Steam purchased .....	...	72
2. Estimate for small establishments for which no data were collected:		
Fuel and electricity .....	...	289
3. All establishments:		
Total fuel and electricity used .....	...	4,389

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:		
Agricultural implements	1,053
Castings, forgings and related products (including plumbers' brass and valves):		
Cast iron plumbing fixtures	730
Gas stops and gas curb stops	1,194
Hydrants	No. 9,100	1,643
Meters, gas	" 116,282	3,788
Plumbers' brass fittings (excluding solder fittings—See below)	17,311
Valves (excluding penstock valves)	25,727
Grey iron castings, including alloy and malleable	3,531
Non-ferrous castings, n.e.s.	3,146
Forgings, n.e.s.:		
Steel	21,297
Other forgings (non-ferrous, stainless steel, etc.)	4,633
Castings, forgings and related products, other	15,231
Architectural and ornamental metal work.		
Aluminium	383
Brass and bronze	9
Iron and steel	1,080
Stainless steel	69
Fabricated bar joists	ton 110	53
Fabricated concrete reinforcing bar	" 75,192	11,094
Piping, fabricated	4,653
Platwork, fabricated, n.e.s.	1,418
Tanks	3,025
Fabricated and structural products, other	5,345

¹ See Explanatory Notes.

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

Description	Quantity	Value
		\$'000
1. Products - Concluded:		
Hardware:		
Automatic screw machine products	113
Products other than automatic screw machine (bolts, nuts, rivets, screws)	4,144
Hardware, other	1,396
Heating equipment	1,629
Machinery	7,496
Miscellaneous products:		
Chains	2,000
Collapsible tubes, metal	3,663
Electro-plating racks	490
Fire extinguishers, hand-type	2,767
Lightning rods and supplies	307
Pipe fittings	8,368
Metal sponges or pads, not impregnated	849
Powder metallurgy products	942
Sanitary ware	16,763
Solder-type fittings	8,112
Spinnings, all metals	1,085
All other products	57,908
2. Amount received in payment for work done on materials and products owned by others		820
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above		(1,721)
Net adjustment for establishments receiving progress payments ²		(5)
Total adjusted value of shipments and work done		243,538

² See footnote 1, Table 7.

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	}	1,094	943	618	2,655	136	2,791						
Nova Scotia													
New Brunswick													
Quebec								2,960	3,924	3,860	10,744	869	11,613
Ontario								14,698	8,925	12,715	36,338	2,686	39,024
Manitoba								2,078	1,228	58	3,364	52	3,416
Saskatchewan								179	13	34	225	98	323
Alberta								142	84	64	290	6	296
British Columbia	559	272	286	1,116	430	1,546							
Totals⁴	21,710	15,386	17,634	54,731	4,277	59,008							
Closing:													
Newfoundland	}	1,102	1,332	749	3,183	45	3,228						
Nova Scotia													
New Brunswick													
Quebec								2,736	4,130	3,732	10,598	1,124	11,722
Ontario								15,687	9,836	14,251	39,774	2,902	42,676
Manitoba								2,180	1,163	81	3,424	55	3,479
Saskatchewan								161	13	26	200	106	306
Alberta								71	67	38	176	11	187
British Columbia	608	233	215	1,056	489	1,545							
Totals⁴	22,546	16,774	19,092	58,412	4,731	63,143							

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. Plumbers' Brass Fittings, 1961 and 1962

Product	Value	
	1961	1962
	\$'000	
Bath waste and overflows	915	854
Faucets, sink, lavatory and bath, and their combinations	4,600	5,742
Plumbing fixture trim	2,373	2,051
Stops	1,113	1,045
Traps	901	1,057
Tub-fillers, showers and combinations of same	1,961	1,995
Toilet tank fittings	2,318	1,848
Other brass plumbing fixtures ¹	1,940	1,478
Totals	16,121	16,070

¹Does not include "Solder-type fittings".

B. Hand-type Fire Extinguishers, 1953 - 62

Year	Value	Year	Value
	\$'000		\$'000
1953	1,767	1958	2,386
1954	2,140	1959	2,234
1955	2,890	1960	2,876
1956	2,912	1961	2,782
1957	2,649	1962	2,767

C. Hydrants, 1956 - 62

Year	Number	Value
		\$'000
1956	11,863	2,051
1957	10,193	1,814
1958	12,095	2,153
1959	13,949	2,427
1960	11,298	1,913
1961	14,478	2,446
1962	13,967	2,516

D. Valves, 1961 and 1962

Type	Value	
	1961	1962
	\$'000	
Iron body (gate, globe, check, etc.)	9,225	10,744
Steel, including alloy steel (gate, globe, check, etc.)	8,006	7,672
Brass or bronze (gate, globe, check, etc.)	6,842	7,372
Automatic regulating valves	988	1,072
Radiator valves (all types)	371	332
Corporation brass (main and curb stops, etc.)	1,928	2,023
Valves, other	1,584	1,095

TABLE 9. Capital and Repair Expenditures, 1960 - 62

Year	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	1,695	4,408	6,103	647	3,989	4,636	2,342	8,397	10,739
1961	1,800	4,562	6,362	737	4,773	5,510	2,537	9,335	11,875
1962	2,550	5,254	7,804	835	5,459	6,294	3,385	10,713	14,098

Source: Business Finance Division. - DBS.

List of Establishments, 1962

Name	Location
Newfoundland:	
McNamara Industries Ltd.	St. John's
Nova Scotia:	
Dominion Steel & Coal Corp. Ltd., Trenton Steel Division	Trenton
Maritime Steel & Foundries, Limited	New Glasgow
New Brunswick:	
McAvity T. & Sons Ltd.	Saint John
St. Stephen Steel Company Ltd. (Maritime Steel & Foundry Ltd.)	St. Stephen
Québec:	
Acton Nipple Inc.	Actonvale
American Metals Spinning Ltd.	Montreal N. Que.
Argo Co., The	Montreal 1
Band T1 Corp.	Montreal N. 39
Booth-Coulter Coppersmithing Co. Ltd.	Montreal
Canadian Bronze Co. Limited	Montreal 24
Canadian "Cinch" Anchoring Systems Ltd.	Montreal 28
Canavan Explosion Venting Systems Ltd.	Montreal 28
Crane Limited	Montreal
Croname (Canada) Ltd.	Waterloo
Crown Welding Co.	Greenfield Park
Cuthbert, W.R., Limited	Montreal
Dominion Hat Block & Die Co.	Montreal 10
Dominion Joints	Ville St. Michel
Dominion Welding Engineering Co. Ltd.	Montreal 5
Domtar Chemicals Ltd.	Lachine
Domtar Chemicals Ltd.	Iberville
Economic Weatherstrip	Ville St. Michel
Fayle Coppersmith Works Ltd.	Montreal
Farris Industries Canada Ltd.	Longueuil
Federal Weatherstrip Inc.	Montreal
Freeman Corporation	Cap-de-la-Madeleine
Fonderie National Foundry	Montreal
Gaulin, Athanase	Montmagny
G. D. Engineering Reg'd.	Ville St. Michel
Golden Gate Mfg. Co. Ltd.	Montreal
Guard-X Reg'd.	Montreal
Hard & Soft Metal Works	Montreal
Harris Steel Corporation	Lachine
Horizon Metal Products Ltd.	Montreal
International Sign Erection Hdwe. Reg'd.	Cap Santé
Jenkins Bros. Ltd.	Lachine
Kiddie Walter & Co. of Canada Ltd.	Montreal 9.
Les Industries Couture Ltée.	Chicoutimi
L'Islet Metal Inc.	L'Isletville
Machineries Mercier Ltée	Levis
Manufacture J.L. Ltée	Quebec 3
Marcel Houle Enr.	Chomedey
Marois, Aurel	Montmagny
Metelweld Limited	Ville St. Michel
Modern Metal Spinning Reg'd.	Montreal 34
Montebello Metal Ltd.	Montebello
Munico Ltd.	Montreal N. 12
Ouellette Messrs. O.J. Inc.	Montreal
Peacock Bros. Ltd.	Ville De La Salle
Piper, Hiram L., Co. Ltd.	Montreal
Regent Brass Ltd.	Montreal 10
Roy, Irene, Ltée	Theftford Mines
Safety Equipment Co. Ltd.	Montreal
Security Safes Ltd.	Montreal 39
Spinning Craft Co. Ltd.	Montreal
Tritton Enterprises Ltd.	Montreal N.
Universa Ltd.	Limouilou
Universal Metal Works Inc.	Quebec 8
Ville Emard Metal Spinning Reg'd.	Montreal 20
Ontario:	
Ace Alloys	Toronto 3
Aerometal Products & Design Ltd.	Toronto
Aljon Products Ltd.	Scarborough
Allied Heat Treat Ltd.	Toronto 18
Allsteel Rolled Products Ltd.	Scarborough
Alward, R., & Son	Straffordville
American Standard Prod. (Canada) Ltd.	Toronto
AMF Atomics (Canada) Ltd.	Port Hope
Apex Bolt Products of Canada	Toronto 15
Armson Iron Works Ltd.	Windsor
Astlett, H.A., & Co. (Canada) Ltd.	St. Thomas
Automated Bldg. Comp'n's Inc.	Scarboro 4
Barco Manufacturing Co. of Canada Ltd.	Walkerville
Bernstein, K.	Toronto
Best Weather Strip Co. Ltd.	Brantford
Beverly Steel & Fabricating	Galt

List of Establishments, 1962 - Continued

Name	Location
Ontario - Continued:	
B & L Metal Products	Elmira
B & W Heat Treating Ltd.	Kitchener
Bowling Metals	Hamilton
Brass Craft Canada Ltd.	Windsor
Brem Enterprises	Toronto
Brighton Valve Company Limited	Brighton
Brooks Mfg. Co. Ltd.	Toronto 10
Bryan Chrome Products	Weston
Budd Machine Tool Co. Ltd.	Windsor
Canada Block Co. Ltd.	St. Catharines
Canada Valve & Hydrant Co. Ltd.	Brantford
Canadian Advance Car Mover Co. Ltd.	Welland
Canadian Arsenals Ltd.	Lindsay
Canadian Arsenals Ltd.	Long Branch
Canadian Brass Ltd.	Galt
Canadian Coupling & Fittings Ltd.	Simcoe
Canadian Foundries & Forgings Ltd.	Welland
Canadian Foundries & Forgings Ltd.	Welland
Canadian General Filters Ltd.	Scarborough
Canadian Meter Co. Ltd.	Milton
Canadian Name Plate Co. Ltd.	Midland
Canadian Pipe & Steel Fabricators	Toronto 2
Canadian Steel Improvement Ltd.	Toronto 14
Canadian Vac-Hyd. Processing Ltd.	Oakville
Cello Products Ltd.	Galt
Chamberlin Metal Weatherstrip Co. Ltd.	London
Chemical Valley Fabricating Co. Ltd.	Sarnia
Chesley - Sames Ltd.	Essex
Chubb Mosler & Taylor Safes Ltd.	Brampton
Columbus McKinnon Ltd.	St. Catharines
Con-A-Vap Limited	Toronto 6
Crane Canada Ltd.	Port Hope
Crane Canada Ltd.	Stratford
Crane Piping Limited	Hamilton
Crawford Fittings (Canada) Ltd.	Niagara Falls
C. & R. Metal Products Ltd.	Sudbury
Coulter Cooper & Brass Co. Ltd.	Toronto 3
Coupeo Limited	Toronto
Crowley Steel Fabricating & Stamping Co.	Dundas
Dart Union Co. of Canada Ltd.	Toronto 22
Delhi Ornamental Iron Works	Delhi
DeZurik of Canada Ltd.	Galt
Diamond Tool & Horse Shoe Co.	Toronto 11
Diebold of Canada Ltd.	Toronto 9
Dillon Mfg. Co.	Toronto 2
Dodd & Struthers Ltd.	Windsor
Dominion Brake Shoe Co. Ltd.	Niagara Falls
Dominion Forge Ltd.	Windsor
Dominion Lightening Rod Co. Ltd.	Dundas
Dominion Sink Ltd.	Petrolia
Dominion Welding Engineering Co. Ltd.	Toronto 19
Domus Engineering Co.	Toronto 4
Durham Pure Copper Lightning Conductor	Durham
Dur-O-Wall Limited	Hamilton
East York Metals	Scarborough
Emberley Enterprises Ltd.	Scarborough
Emco Ltd.	London
Express Metal Spinning	Toronto
Ferguson Tools Ltd.	Swansea
Ferrari Ornamental Co.	Toronto 15
Flag Fire Equipment Ltd.	Kitchener
Flaherty Mfg. Co. Ltd.	Hamilton
Flexconics Corp. of Canada Ltd.	Brampton
Foley Foundry & Machine Co. Ltd.	Belleville
Franklin Metal Products	St. Catharines
Fyr Fyter Co. of Canada	Toronto
Galt Brass Co. Ltd.	Galt
Galt British Forge Ltd.	Galt
Genbearco Limited	Toronto
General Die & Machine Co. Ltd.	Welland
General Fire Extinguisher Corp. (Canada) Ltd.	Windsor
General Impact Extrusions Ltd.	Toronto 18
Gilbert Steel Ltd.	Malton
Glitsch, Fritz W. & Sons (Canada) Ltd.	Uxbridge
Goddard Machine & Stamping Co.	Scarborough
Great Lakes Forgings Ltd.	Riverside
Gregory Fasteners Ltd.	Rexdale
Grinnell Co. of Canada Ltd.	Toronto 2B
Guardian Mfg. Ltd.	Brockville
Guelph Engineering Co. Ltd.	Guelph
Harjohn Industries Ltd.	St. Catharines
Harris, J. & Son Ltd.	Hamilton
Hercules Shaft Splice Co.	Stratford
High Precision Brass Ltd.	Toronto 2
Hillman, W. H. & Sons	Rexdale
Hills McConna Co. (Canada) Ltd.	Summerville
Hose Couplings Ltd.	Simcoe
H. & S. Commercial Heat Treat	Welland
Imperial Plating Rack Co. Ltd.	London
Industrial Fabricators	Sarnia

List of Establishments, 1962 - Continued

Name	Location
Ontario - Continued:	
Jamaica Manufacturing (Canada) Co. Ltd.	Prescott
Jardine, A.B. & Co. Limited	Hespeler
Jensen Fitting Mfg. Ltd.	Summerville
Josam Products Ltd.	Toronto 16
Kaiser, F.B., Co. (Canada) Ltd.	Oshawa
Kee Klamp North America Ltd.	Toronto 19
Kerr Piping Limited	Midland
Keystone Valve (Canada) Ltd.	Toronto 18
Killian Mfg. Corp. (Canada) Ltd.	Toronto 18
Kitchen Installations Ltd.	Ajax
Klassen Bronze	New Hamburg
K.S.M. of Canada Limited	Rexdale
Kurly Kate (Canada) Ltd.	Toronto 3
Ladish Co. of Canada Ltd.	Brantford
Lakes Controls Limited	Toronto 7
Lauder Brass Ltd.	Weston
Lewis & Co.	Toronto
Linde Air Products Co.	Toronto 4
Lofthouse Brass Mfg. Co.	Whitby
Lok Form Ltd.	Scarborough
Luckock, Richard C.	Toronto 4
Magcoa Ltd.	Weston
Magline of Canada Ltd.	Renfrew
Manning Maxwell & Moore of Canada Ltd.	Galt
Matthews, Jas. H. & Co. (Canada) 1959 Ltd.	Milton
Mellen, T.C., Mfg. Co.	Rexdale
Metal Bendings & Furniture Ltd.	Toronto 3
Metal Textile Corp. of Canada Ltd.	Hamilton
Midland Equipment Co.	Scarborough
Millard & Lumb Ltd.	Kingston
Millman, Messrs. W.H. & Sons	Rexdale
Misco Fabricators of Canada Ltd.	Welland
Modern Containers Ltd.	Scarborough
Modern Hamdling Methods Ltd.	Dundas
Moeller Mfg. Co. (Canada) Ltd.	Niagara Falls
Morrison, James Brass Mfg. Co. Ltd.	Toronto 2B
Mosler-Taylor Safes Ltd.	Brampton
Mount Dennis Welding Limited	Toronto 9
Mueller Ltd.	Sarnia
Myatt, E., Co. Ltd.	Toronto 8
Neosid (Canada) Ltd.	Toronto 18
Neptune Meters Ltd.	Long Branch
New England Valve Corp. of Canada Ltd.	Cooksville
Niagara Terrazzo Supplies Ltd.	Niagara Falls
Nicol Manufacturing Co.	Rexdale
Northcott Instruments Ltd.	Guelph
Oliver-Woods Metal Spinning Co.	Toronto 3
Otaco Limited	Orillia
Parcoli Products Ltd.	Ottawa
Parkinson Cowan (Canada) Ltd.	Chatham
Par-Met Industries Ltd.	Richmond Hill
Peerless Plating Rack Co.	Toronto 5
Peninsula Fittings (St. Catharines) Ltd.	St. Catharines
Perth Metal Industries Ltd.	Stratford
Phillips, G.E., Ltd.	Toronto 10
Phillips Lightning Rod Co. Ltd.	Toronto 13
Phoenix Mfg. Co.	Milton
Pinder Bros. Ltd.	Willowdale
Pipe Coll Fabricators Ltd.	Don Mills
Powco Steel Products Ltd.	Toronto 15
Preston Heat Treating Corp. Ltd.	Preston
Process Equipment Mfrs. Ltd.	London
Pyrene Mfg. Co. of Canada Ltd.	Toronto 6
Reinforcing Steel Products Co.	New Toronto
Reliance Steel Fabricators Ltd.	Windsor
Ric-Wil Co. of Canada Ltd.	St. Thomas
Roberts Art. & Son	Hamilton
Rockiron Company Limited	Sudbury
Rockwell Mfg. Co. of Canada Ltd.	Guelph
Roper Steel Construction Co.	Scarborough
St. Lawrence Steel & Wire Co. Ltd.	Gananoque
Samuel Steel Strapping Limited	Cooksville
Seeley, J.W. Industries Ltd.	Dundalk
Selck, Walter E. & Co. Canada	Toronto 19
Service Products	Windsor
Shaw Flexible Tubes Ltd.	Rexdale
Sheepbridge Engineering (Canada) Ltd.	Guelph
Stanley Manufacturing Co. Ltd.	Toronto
Star Expansion Industries Ltd.	Toronto 14
Steel Co. of Canada Ltd.	Gananoque
Sterling Faucet Canada Ltd.	Oakville
Sun Tube of Canada Ltd.	Ottawa
Taylor Forge & Pipe Works of Canada Ltd.	Hamilton
Thamesville Metal Products Ltd.	Thamesville
Thermalite, S.D.M., Ltd.	Toronto 17
Tonner, Gordon	Elgin Mills
Toronto Coppersmithing Co. Ltd.	Toronto 8
Toronto Fitting & Foundry	Etobicoke
Triangle Metal Spng. & Stpg. Co.	Toronto 10
Tubco Lamp Parts Ltd.	Toronto 17

List of Establishments, 1962 - Continued

Name	Location
Ontario—Concluded:	
Tube Turns of Canada Ltd.	Ridgetown
Union Metal Mfg. Co. of Canada Ltd.	Brampton
United Flexible Metallic Tubing (Canada) Ltd.	Richmond Hill
Universal Metal Spinning Products	Toronto
Up-Right Scaffolds Ltd.	Oshawa
Valve & Primer (Canada) Ltd.	Dundas
Victoria Steel Products Ltd.	Riverside
Victory Metal Works	Toronto
Wallaceburg Bail Chain Mfg. Co.	Wallaceburg
Wallaceburg Brass Limited	Wallaceburg
Wallaceburg-Singer Ltd.	Wallaceburg
Waterloo Spring Co. Ltd.	Kitchener
Welco Precision Weights	Hamilton
Welland Vale Mfg. Co. Ltd.	St. Catharines
West Brant Apiary Supplies	W. Brantford
Williamson T.D., Canada Ltd.	Brampton
Wilson & Cousins Co. Ltd.	New Toronto
Winchester Western (Canada) Limited	Cobourg
Wolverine Brass Co. Ltd.	Toronto 4
Yarmouth Fabricators	St. Thomas
Yarnell-Waring Co. of Canada Ltd.	Guelph
York Metal Spinning & Specialties Ltd.	Richmond Hill
Zowie Products	Toronto 8
Manitoba:	
Alco Equipment Ltd.	Winnipeg 3
Cowin Steel Co. Ltd.	Winnipeg 3
Klassen Bros.	Winnipeg 5
Kruschel L. & Sons	Morden
Made-Well Mfg. Co.	Sifton
Manitoba Bridge & Engineering Works Ltd.	Winnipeg
Mercury Metal Products	Winnipeg 1
Northwestern Brass Ltd.	Winnipeg
Peterson, D.R. & Co.	Winnipeg
Red River Chain	Winnipeg 16
Rosedale Mfg.	Winnipeg 4
Swan Manufacturing Company	Winnipeg
Saskatchewan:	
Acme Industries Ltd.	Saskatoon
Bridge City Steel Ltd.	Saskatoon
East, John, Iron Works Ltd.	Saskatoon
Fudge's Industries	Moosomin
Regina Iron Works Ltd.	Regina
Westcon Forming Products Ltd.	Saskatoon
Alberta:	
Alta. Bend Ltd.	Edmonton
Canadian Bronze Co. Ltd.	Edmonton
Jacobs Welding Engineering Ltd.	Edmonton
Lethbridge Iron Works Co. Ltd.	Lethbridge
McAvity T. & Sons (Western) Ltd.	Medicine Hat
Scott, S.F. Mfg. Co. Ltd.	Medicine Hat
Winspun Copper & Brass Ltd.	Forest Lawn
Wittke Iron Works	Medicine Hat
British Columbia:	
Advance Industries Ltd.	Vancouver 9
Alumaloc	Vancouver
Art Metal Spinning Co.	Vancouver
Art's Aluminum & Brass Foundry Ltd.	Vancouver
Basco Mfg. Co. Ltd.	Campbell River
Bobbie Equipment & Welding Co. Ltd.	Vancouver
Brittain Steel Fabs. Ltd.	New Westminster
C. & B. Heat Treating Ltd.	Vancouver
Canada Chain & Forge Co. Ltd.	Vancouver 9
Canadian Norwegian Chain Co. Ltd.	Granville Island
Canadian Valve Engineering Co.	Vancouver 6
Capilano Metal Products Ltd.	North Vancouver
Crane Canada Limited	Vancouver
Ellett Copper & Brass Co. Ltd.	Vancouver 10
Esco Limited	Vancouver 15
Hastings Brass Foundry Ltd.	Vancouver 6
Kamloops Steel Fabricators Ltd.	Kamloops
Leigh's Weatherstrips	Victoria
Lister Bolt & Chain Works Ltd.	Vancouver 10
McBain, A.J., Ltd.	Vancouver 5
McLeod & Norquay Ltd.	Vancouver 9

List of Establishments, 1962 - Concluded

Name	Location
British Columbia - Concluded:	
McQuat Industries Ltd.	North Vancouver
Metal Distributors Ltd.	North Burnaby
Micon Products Ltd.	Vancouver 9
Motor Specialty Manufacturers Ltd.	Vancouver 6
National Shield Weld Limited	Vancouver 10
Paceantic Products Ltd.	North Vancouver
Pacific Aluminum House Ltd.	Vancouver 3
Premier Engineering & Iron Works	Burnaby 1
Rain Bird Sprinkler Mfg. Co. (Canada) Ltd.	Vancouver 4
Ross & Howard Iron Works Co. Ltd.	Vancouver
Samco Engineering Ltd.	Richmond
Spin Craft Mfg. Co.	Vancouver 6
West Coast Metal Products	Vancouver 6
Western Corrosion Engineering Ltd.	Vancouver
Wilfro Mfg. Co. Ltd.	Vancouver 6

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

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.

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.

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).

**(b) By total activities**

1010698399

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.