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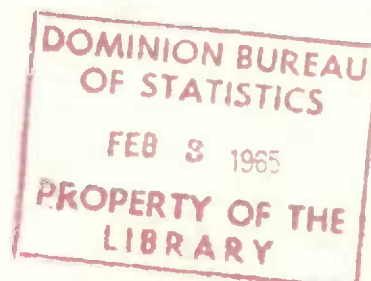
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ANNUAL



WIRE AND WIRE PRODUCTS MANUFACTURERS 1962

ANNUAL CENSUS
OF MANUFACTURES



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DOMINION BUREAU OF STATISTICS
Industry Division

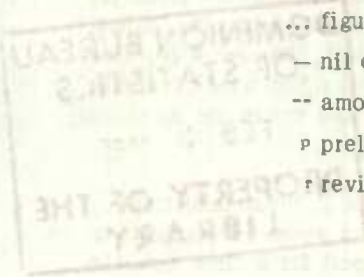
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SYMBOLS

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

- .. figures not available.
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- nil or zero.
- amount too small to be expressed.
- p preliminary figures.
- r revised figures.



WIRE AND WIRE PRODUCTS MANUFACTURERS

1962

Data presented in this report under the heading of Wire and Wire Products Manufacturers 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 Wire and Wire Products Manufacturers in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in drawing wire from rods and in manufacturing nails, spikes, staples, bolts, nuts, rivets, screws, washers, wire fencing, screening, wire cloth, barbed wire, tire chains, uninsulated wire rope and cable, kitchen wire goods and other wire products. Establishments primarily engaged in manufacturing insulated wire and cable are included in Industry No. 338—Manufacturers of Electric Wire and Cable.

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 negligible.

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	179	9,623	36,527	2,969	14,571	12,652	51,098	2,875	108,022	197,938	..
1958	188	8,946	34,495	2,898	14,803	11,844	49,298	2,690	105,145	188,760	79,052
1959	189	9,996	40,998	3,188	16,776	13,184	57,773	3,123	123,839	215,344	92,349
1960	198	9,241	39,355	3,087	16,913	12,328	56,268	2,892	119,044	210,229	88,914
1961	199	9,062	40,106	2,913	16,752	11,995	56,859	3,059	125,326	220,702	91,686

See footnotes following Table 3 A.

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 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													
Newfoundland	1	148	328	689	99	1,879	2,797	806	—	—	173	831	825
Nova Scotia	1												
New Brunswick	2												
Quebec.....	53	2,994	6,549	12,876	988	44,230	76,247	30,456	7	25	3,946	18,583	31,846
Ontario	110	5,489	11,651	24,574	1,829	71,757	129,156	55,319	35	144	7,409	35,781	55,984
Manitoba	3	53	109	182	13	1,015	1,688	639	10	10	69	322	633
Alberta	7												
British Columbia	23	415	833	1,827	134	5,147	11,051	5,977	10	10	630	2,966	6,303
Totals	200	9,099	19,470	40,148	3,062	124,029	220,940	93,197	48	195	12,227	58,484	95,591
1962													
Newfoundland	1	117	277	561	100	1,678	2,537	582	—	—	143	703	580
Nova Scotia	1												
New Brunswick	2												
Quebec.....	52	3,103	6,914	13,351	1,038	47,304	79,995	32,394	10	41	4,058	19,340	34,108
Ontario	121	6,012	12,820	27,976	1,957	83,639	150,199	65,832	33	115	8,098	39,676	66,750
Manitoba	4	83	168	306	19	1,336	2,548	1,218	10	10	106	419	1,213
Alberta	7												
British Columbia	22	436	642	1,916	156	6,431	12,744	6,238	10	10	638	3,249	6,429
Totals	210	9,751	21,020	44,110	3,270	140,388	248,023	106,264	48	175	13,045	63,387	109,080

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 Concept¹

Size group	Establishments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and electricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manufacture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
1961													
Under \$10,000	6	3	2	3	1	15	35	19	6	11	4	4	18
\$ 10,000 to \$ 24,999	14	12	21	34	5	65	235	160	13	39	19	53	160
25,000 " 49,999	26	99	196	313	14	309	991	667	11	53	122	379	690
50,000 " 99,999	25	128	294	451	27	768	1,864	1,080	10	42	165	607	1,165
100,000 " 199,999	26	271	532	854	55	1,600	3,621	1,932	6	42	350	1,227	1,935
200,000 " 499,999	42	962	2,191	3,269	219	5,861	13,632	7,611	2	8	1,260	4,898	8,099
500,000 " 999,999	19	734	1,641	2,683	168	5,919	13,042	6,842	—	—	956	3,936	6,927
1,000,000 " 4,999,999	29	2,589	5,442	11,372	749	29,247	64,891	35,120	—	—	3,697	17,842	36,550
5,000,000 and over	13	4,281	9,152	21,169	1,825	80,246	122,629	39,767	—	—	5,654	29,539	40,047
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	200	9,099	19,470	40,148	3,062	124,029	220,940	93,197	48	195	12,227	58,484	95,591
1962													
Under \$10,000	8	3	3	5	2	13	46	28	8	17	5	7	30
\$ 10,000 to \$ 24,999	12	12	17	27	5	54	175	116	11	36	15	31	116
25,000 " 49,999	25	73	142	229	17	298	910	596	13	47	94	299	625
50,000 " 99,999	29	161	331	514	35	735	2,042	1,266	11	42	207	710	1,296
100,000 " 199,999	26	254	543	896	48	1,604	3,951	2,312	4	28	324	1,234	2,335
200,000 " 499,999	39	938	2,042	3,170	189	5,138	12,915	7,649	1	5	1,183	4,870	8,105
500,000 " 999,999	27	1,008	2,219	3,659	217	8,914	17,998	9,083	—	—	1,337	5,412	9,127
1,000,000 " 4,999,999	31	2,842	6,083	12,866	924	35,423	73,430	37,540	—	—	4,008	19,560	39,436
5,000,000 and over	13	4,460	9,640	22,743	1,833	88,209	136,557	47,673	—	—	5,872	31,444	48,005
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	210	9,751	21,020	44,110	3,270	140,388	248,023	106,264	48	175	13,045	63,387	109,080

See footnotes following Table 1 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 Concept¹

Size group	Establishments	Manufacturing activity							Total activity				
		Production and related workers ⁴			Cost of fuel and electricity ⁵	Cost of materials and supplies used ⁴	Value of shipments of goods of own manufacture ⁴	Value added ⁴	Working owners and partners ⁶		Total employees ⁷		Total value added ⁸
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
1961													
Under \$10,000	13	10	12	20	3	44	129	77	11	25	13	27	77
\$ 10,000 to \$ 24,999	22	48	89	140	10	378	781	387	10	29	71	204	401
25,000 " 49,999	30	138	298	474	29	683	1,751	1,060	16	79	167	595	1,147
50,000 " 99,999	35	368	765	1,192	75	2,303	4,949	2,519	9	54	483	1,713	2,586
100,000 " 199,999	25	543	1,122	1,770	130	3,483	7,407	3,786	2	8	687	2,610	4,127
200,000 " 499,999	37	1,267	2,882	4,528	307	12,216	23,966	11,444	—	—	1,627	6,713	11,482
500,000 " 999,999	14	988	2,132	4,344	325	10,856	21,428	10,317	—	—	1,322	6,337	11,344
1,000,000 " 4,999,999	24	5,737	12,170	27,679	2,182	94,065	160,529	63,609	—	—	7,857	40,284	64,426
5,000,000 and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	200	9,099	19,470	40,148	3,062	124,029	220,940	93,197	48	195	12,227	58,484	95,591
1962													
Under \$10,000	17	8	10	14	6	53	166	105	17	46	13	19	107
\$ 10,000 to \$ 24,999	21	52	99	158	13	315	719	384	9	30	70	213	398
25,000 " 49,999	27	121	231	383	27	633	1,597	938	13	52	155	516	965
50,000 " 99,999	30	290	618	1,012	80	2,384	4,621	2,180	7	33	368	1,422	2,271
100,000 " 199,999	27	419	890	1,397	77	2,500	6,212	3,651	2	13	544	2,053	3,934
200,000 " 499,999	47	1,706	3,777	6,266	432	14,954	29,992	14,680	—	—	2,182	8,988	14,884
500,000 " 999,999	17	1,097	2,357	4,422	314	13,797	27,532	13,443	—	—	1,569	7,213	14,757
1,000,000 " 4,999,999	24	6,058	13,038	30,457	2,320	105,753	177,184	70,884	—	—	8,144	42,963	71,783
5,000,000 and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	210	9,751	21,020	44,110	3,270	140,388	248,023	106,264	48	175	13,045	63,387	109,080

See footnotes following Table 1 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	13	10	12	20	3	44	129	77	11	25	13	27	77
\$ 10,000 to \$ 24,999	20	40	72	112	9	323	684	346	10	29	61	166	346
25,000 " 49,999	30	132	281	456	28	676	1,709	1,016	16	79	157	559	1,047
50,000 " 99,999	36	371	778	1,200	69	2,232	4,855	2,508	9	54	480	1,681	2,584
100,000 " 199,999	25	519	1,056	1,662	133	3,457	7,358	3,739	2	8	662	2,498	3,932
200,000 " 499,999	38	1,302	2,970	4,675	313	12,376	24,248	11,588	—	—	1,675	6,931	11,836
500,000 " 999,999	13	877	1,901	3,847	291	9,273	19,203	9,702	—	—	1,152	5,568	9,432
1,000,000 " 4,999,999	25	5,848	12,400	28,176	2,216	95,647	162,753	64,223	—	—	8,027	41,054	86,338
5,000,000 and over	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	200	9,099	19,470	40,148	3,062	124,029	220,940	93,197	48	195	12,227	58,484	93,591
1962													
Under \$10,000	17	8	10	14	6	53	166	105	17	46	13	19	107
\$ 10,000 to \$ 24,999	20	49	92	145	12	304	689	366	9	30	66	198	372
25,000 " 49,999	28	124	238	398	28	644	1,627	956	13	52	159	531	991
50,000 " 99,999	29	271	580	955	55	2,108	4,250	2,108	7	33	345	1,341	2,152
100,000 " 199,999	25	406	862	1,331	94	2,484	5,793	3,229	2	13	503	1,823	3,307
200,000 " 499,999	50	1,738	3,844	6,390	441	15,245	30,782	15,174	—	—	2,246	9,298	15,631
500,000 " 999,999	15	988	2,062	3,849	254	11,922	23,654	11,551	—	—	1,290	5,893	11,654
1,000,000 " 4,999,999	23	4,463	9,667	22,067	1,727	76,413	133,648	56,685	—	—	6,159	31,895	58,722
5,000,000 and over	3	1,724	3,666	8,963	653	31,214	47,413	16,091	—	—	2,264	12,589	16,144
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	210	9,751	21,020	44,110	3,270	140,388	248,023	106,264	48	175	13,045	63,387	109,080

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				
		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	34	46	81	130	16	455	997	515	24	68	65	189	515
5- 14 employees	56	327	736	1,161	69	2,242	5,382	3,048	20	105	432	1,631	3,168
15- 49 "	59	1,301	2,777	4,464	329	11,441	23,297	11,588	4	23	1,635	6,524	12,071
50- 99 "	21	1,091	2,393	4,166	252	11,496	24,970	13,170	—	—	1,454	6,343	13,374
100-199 "	12	1,097	2,486	4,744	346	13,727	26,753	12,900	—	—	1,579	7,339	14,073
200-499 "	18	5,237	10,997	25,482	2,050	84,668	139,541	51,977	—	—	7,062	36,459	52,390
500 employees and over .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	200	9,099	19,470	40,148	3,062	124,029	220,940	93,197	48	195	12,227	58,484	93,591
1962													
Under 5 employees	39	53	97	161	20	410	1,003	567	27	82	72	221	584
5- 14 employees	56	338	685	1,147	84	2,534	6,158	3,554	18	75	456	1,727	3,676
15- 49 "	60	1,375	3,007	5,101	348	12,992	26,788	13,588	2	13	1,742	7,343	14,038
50- 99 "	23	1,227	2,677	4,630	278	13,916	27,901	14,066	1	5	1,604	6,921	14,537
100-199 "	14	1,306	2,938	5,323	415	16,361	32,002	15,281	—	—	1,885	8,484	16,630
200-499 "	15	3,718	7,903	18,311	1,314	60,426	105,618	44,677	—	—	5,009	25,664	45,031
500 employees and over	3	1,734	3,714	9,437	782	33,748	48,553	14,531	—	—	2,277	13,025	14,585
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	210	9,751	21,020	44,110	3,270	140,388	248,023	106,264	48	175	13,045	63,387	109,080

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 Concept¹

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	Withdrawals	Number	Salaries and wages	
	No.		'000			'000				'000		'000	
1961													
Individual ownerships	31	119	255	393	24	547	1,503	936	26	105	134	422	943
Partnerships	12	61	112	174	11	219	695	466	22	91	69	190	466
Incorporated companies	157	8,919	19,104	39,580	3,027	123,263	218,741	91,796	—	—	12,024	57,872	94,183
Cooperatives	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	200	9,099	19,470	40,148	3,062	124,029	220,940	93,197	48	185	12,227	58,484	95,591
1962													
Individual ownerships	31	155	318	406	23	434	1,391	932	32	110	165	425	941
Partnerships	8	18	27	50	6	93	315	217	16	65	18	50	217
Incorporated companies	171	9,578	20,676	43,654	3,241	139,861	246,317	105,115	—	—	12,862	62,911	107,922
Cooperatives	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	210	9,751	21,020	44,110	3,270	140,388	248,023	106,264	48	175	13,045	63,387	109,080

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	220,940	248,023
Add: Closing inventory—Goods in process	4,042	3,525
Finished goods	24,659	26,668
Deduct: Opening inventory—Goods in process	3,196	3,218
Finished goods	26,157	25,076
Gross output—Manufacturing activity	220,289	249,922
Deduct: Cost of materials and supplies used in manufacturing activity	124,029	140,388
Cost of fuel and electricity used	3,062	3,270
Value added—Manufacturing activity	93,197	106,264
Non-manufacturing activities:		
Value of shipments—Goods not of own manufacture .....	..	16,357
Add: All other revenue .....	..	319
Closing inventory—Goods purchased for resale	2,643	3,060
Deduct: Purchases of goods for resale as such .....	..	15,360
Opening inventory—Goods not of own manufacture	2,494	2,798
Cost of all other materials and supplies used .....	..	743
Value added—Non-manufacturing activities	2,394	2,815
Total value added	95,591	109,080

See footnotes following Table 3 A.

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 ^{4,5}		Sales, and distribution ⁶		Total employees ^{7,8}		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	Male	Female	Male	Female	Manufac- turing	Other				
1961	number										\$'000					
Newfoundland	}															
Nova Scotia		148	—	..	..	..	..	..	..	171	2	689	..	..	..	831
New Brunswick																
Quebec		2,824	170	..	..	..	..	..	..	3,575	371	12,876	..	..	..	18,583
Ontario		4,847	642	..	..	..	..	..	..	6,239	1,170	24,574	..	..	..	35,781
Manitoba		17	—	..	..	..	..	..	..	18	—	62	..	..	..	63
Alberta		35	1	..	..	..	..	..	46	5	119	..	..	..	259	
British Columbia		384	31	..	..	..	..	..	548	82	1,827	..	..	..	2,966	
Totals		8,255	844	..	..	..	..	..	10,597	1,630	40,148	..	..	..	58,484	
1962																
Newfoundland	}															
Nova Scotia		117	—	—	—	24	2	—	—	141	2	561	—	142	—	703
New Brunswick																
Quebec		2,902	201	7	—	567	168	197	16	3,673	385	13,351	32	4,606	1,351	19,340
Ontario		5,270	742	1	—	1,218	511	281	75	6,770	1,328	27,976	25	9,881	1,794	39,676
Manitoba		24	2	—	—	3	—	—	—	27	2	72	—	10	—	82
Alberta		57	—	—	17	4	1	—	75	4	234	—	100	3	337	
British Columbia		395	41	—	—	90	49	57	6	542	96	1,916	—	885	448	3,249
Totals		8,765	986	8	—	1,919	734	536	97	11,228	1,817	44,110	57	15,624	3,596	63,387

See footnotes following Table 3 A.

TABLE 3 A. 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	7,583	785
February	7,641	793
March	7,707	820
April	7,801	851
May	8,091	863
June	8,237	850
July	8,092	879
August	7,882	798
September	8,121	852
October	8,070	894
November	8,016	936
December	8,019	904
Average for establishments reporting monthly detail (collected only for large establishments)	7,950	858
Average for small establishments (only annual averages collected)	815	128
Average for all establishments	8,765	986

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 Confidential.

¹¹ Includes paid employees, 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 28,463	3,873
Wire rods	" 394,353	52,967
Wire:		
Plain	" 116,338	22,402
Galvanized	" 33,929	7,479
Sheets	" 7,005	1,572
Strips	" 7,358	1,732
Pipe and tubing	" ..	1,068
Nail and tack plate	lb. 2,131,178	158
Other iron and steel	" ..	13,449
Stainless Steel:		
Wire	lb. 1,764,526	1,501
Other forms	" 758,884	465
Non-ferrous metals:		
Aluminum:		
Castings	" 1,353	1
Sheet	" 70,613	36
Other forms	" 2,117,713	1,058
Brass and bronze	" 10,528,247	6,163
Copper:		
Sheet	" 48,400	27
Wire	" 297,905	151
Other forms	" 351,384	119
Lead	" 1,477,685	155
Tin	" 12,210	16
Zinc	" 8,497,099	1,076
All other non-ferrous metals	" ..	654
Acid, muriatic	lb. 3,078,717	66
Acid, sulphuric, 100%	" 17,441,279	266
All other materials and components used ² .....	...	12,464
2. Containers and other packaging materials and supplies used		3,016
3. Operating, maintenance and repair supplies used (excluding fuel)		6,684
4. Amount paid out to others for work done on materials owned by establishments		1,770
Total		140,388

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 \$4,485,210.

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 7,388	81
(b) Imported	" 4,781	61
Sub-bituminous coal (from Alberta mines only) .....	...	...
Anthracite coal	ton 559	8
Lignite coal .....	...	...
Coke	ton 79	1
Gasoline (including gasoline used in cars and trucks)	Imp. gal. 375,613	140
Fuel oil including kerosene or coal oil	" 2,673,271	304
Wood	cord 381	3
Gas:		
(a) Liquefied petroleum gases	Imp. gal. 348,599	73
(b) Other manufactured gas	M cu. ft. 135,737	27
(c) Natural gas	" 1,655,381	888
Other fuel .....	...	2
Electricity purchased	kwh. 166,272,362	1,426
Steam purchased .....	...	81
2. Estimate for small establishments for which no data were collected:		
Fuel and electricity .....	...	174
3. All establishments:		
Total fuel and electricity used .....	...	3,270

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

Products	Quantity made	Quantity shipped	Value \$'000
Wires			
(Total production, whether for sale or for further manufacture)			
Iron and steel wires:			
Plain wire (including welding wire but not welding rods)	net ton	351,432	164,746
Galvanized wire	"	62,768	49,111
Other coated wire	"	5,365	4,422
Barbed wire	"	5,595	5,278
Cold-rolled flat wire of all sizes, qualities and finishes, including nut steel	"	...	2,895
Nails, staples and tacks			
Wire nails, iron and steel (all wire nails, including shoe rivets and other small sizes of wire nails)	keg	1,422,230	1,435,787
Wire staples, iron and steel, of all kinds	"	19,515	21,776
Tacks, all kinds (all cut and wire tacks, including hob nails, clout nails, trunk nails and other small cut nails, but not cut shingle nails) .....	}	...	...
Miscellaneous, including thumb tacks, upholstery nails, brass and cooper nails, cut nails, aluminum nails and staples for paper stitching .....		...	3,163
Wire fencing and wire netting			
Woven wire farm fence, steel	ton	...	14,059
Woven wire chain link fabric, steel (including tonnage for industrial fences)	"	...	6,208
Steel fence posts	"	...	4,618
Gates	No.	...	27,163
Snow fence .....	...	...	...
Welded or woven wire mesh, steel for concrete reinforcement, or purposes other than fencing	ton	...	57,068
Wire cloth:			
Fourdrinier wire cloth .....	...	...	10,869
Other wire cloth, including insect wire screening—steel, including stainless steel .....	...	...	3,254
Non-ferrous metal .....	...	...	828
Miscellaneous fencing and netting .....	...	...	832
Wire goods			
Steel wire rope or cable (multiple strand—all types)	ton	...	25,574
Twisted strand wire (including galvanized guy wire, wire clothes-lines, twisted bed strand)	"	...	7,984
Steel wire upholstery springs and constructions .....	...	...	15,492
Other steel wire springs (except bed springs) .....	...	...	6,433
Miscellaneous wire goods (including wire lacing, halroins, tire braids, wire paper clips, wire guards, welding rods, etc.) .....	...	...	25,614
Fasteners and miscellaneous			
Automatic screw machine products .....	...	...	7,344
Fasteners (bolts, nuts, rivets, washers, screws, etc.) .....	...	...	42,994
All other products .....	...	...	33,224
Amount received in payment for work done on materials and products owned by others			1,025
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above			(457)
Net adjustment for establishments receiving progress payments ² .....			...
Total adjusted value of shipments and work done			248,825

¹ See Explanatory Notes.

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	215	182	496	893	23	916
Nova Scotia						
New Brunswick						
Quebec	8,331	641	8,808	17,780	1,214	18,994
Ontario	12,269	2,190	14,280	28,739	1,379	30,118
Manitoba	21	2	4	27	—	27
Alberta	64	—	37	101	—	101
British Columbia	1,763	203	1,450	3,417	182	3,599
Totals ⁴	22,663	3,218	25,076	50,957	2,798	53,755
Closing:						
Newfoundland	198	105	397	700	24	724
Nova Scotia						
New Brunswick						
Quebec	9,239	668	9,522	19,429	1,548	20,976
Ontario	12,971	2,511	15,189	30,671	1,330	32,001
Manitoba	30	4	2	36	—	36
Alberta	78	—	62	140	—	140
British Columbia	1,492	239	1,495	3,226	159	3,385
Totals ⁴	24,068	3,525	26,668	54,202	3,060	57,262

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. Steel Wire, 1958 - 62

Year		Plain wire	Galvanized wire	Barbed wire	Wire, other coated
1958					
Quantity made	ton	305,733	56,328	4,649	2,397
Quantity shipped	"	114,843	28,210	4,586	2,148
Value	\$'000	21,741	6,898	854	642
1959					
Quantity made	ton	360,874	62,269	3,755	4,450
Quantity shipped	"	146,271	31,695	3,393	4,336
Value	\$'000	27,557	7,587	632	1,278
1960					
Quantity made	ton	301,140	52,706	2,916	4,606
Quantity shipped	"	150,371	39,960	2,971	4,238
Value	\$'000	29,354	9,239	550	1,334
1961					
Quantity made	ton	315,316	56,289	4,244	4,722
Quantity shipped	"	152,913	43,100	4,000	4,044
Value	\$'000	28,507	9,393	732	1,274
1962					
Quantity made	ton	355,786	64,688	5,740	5,374
Quantity shipped	"	162,336	49,818	5,391	4,422
Value	\$'000	30,448	11,026	943	1,445

Note: Figures on quantity made include the amounts made and used in subsequent processes in the same plants such as, in the manufacture of nails, galvanized wire, etc.

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

B. Steel Wire Fencing, 1958-62

Year	Quantity shipped	Value
	net ton	\$'000
1958		
Farm fence	13,390	2,933
Lawn fence	1,546	405
Chain link fabric	7,135	1,863
Totals	22,071	5,202
1959		
Farm fence	15,522	3,248
Lawn fence	1,327	371
Chain link fabric	7,458	1,953
Totals	24,307	5,573
1960		
Farm fence	12,353	2,768
Lawn fence	1,392	414
Chain link fabric	7,639	1,689
Totals	21,384	5,072
1961		
Farm fence	13,906	3,074
Lawn fence	1,298	369
Chain link fabric	6,725	2,133
Totals	23,929	5,576
1962		
Farm fence	14,059	3,062
Lawn fence	1,640	441
Chain link fabric	9,069	2,488
Totals	24,768	5,932

C. Nails, Tacks and Staples, 1958-62

Year	Iron and steel wire staples	Iron and steel wire nails and spikes	Wire and cut tacks of all kinds
	kegs		lbs.
1958			
Quantity shipped	25,861	1,658,129	2,356,440
Value	300	16,364	880
1959			
Quantity shipped	27,042	1,481,101	2,042,335
Value	318	15,230	742
1960			
Quantity shipped	24,670	1,238,072	2,102,035
Value	298	12,912	690
1961			
Quantity shipped	20,106	1,431,874	1,866,000
Value	247	14,960	730
1962			
Quantity shipped	21,776	1,515,047	1,708,000
Value	268	15,437	684

Note: 1 keg = 100 pounds.

TABLE 8. Shipments of Goods of Own Manufacture - All Industries - Concluded
D. Steel Wire Rope and Cable, 1953-62

Year	Wire rope and cable ¹ (multiple strand all types)		Twisted strand wire (single strand all types inc. plastic coated)		Total Value
	Quantity shipped	Value	Quantity shipped	Value	
	tons	\$'000	tons	\$'000	
1953	20,460	13,883	8,911	2,959	16,842
1954	20,337	12,804	7,938	2,665	15,469
1955	23,658	14,599	8,018	2,684	17,283
1956	30,006	18,537	10,582	3,952	22,489
1957	28,304	18,906	7,745	2,758	21,664
1958	24,182	16,655	7,536	2,828	19,483
1959	26,109	17,841	8,511	3,084	20,925
1960	25,746	17,423	9,517	3,427	20,850
1961	23,459	15,782	7,773	2,988	18,771
1962	26,518	17,608	9,267	3,150	20,758

¹ Totals shown under this heading for earlier years (prior to 1961) excluded some tonnages of multiple strand wire not classed as "wire rope" which were reported separately. As of 1961, this category is being interpreted to include all types of multiple strand wire. Totals shown under this heading prior to 1961 have been adjusted to reflect this change in interpretation.

E. Welded Wire Mesh, 1958-62

Year	Quantity shipped	Value
	tons	\$'000
1958	32,840	6,899
1959	44,979	9,423
1960	39,676	8,126
1961	44,568	8,946
1962	58,876	11,816

F. Welding Rods,¹ 1958-62

Year	Quantity	Value
	tons	\$'000
1958	18,474	7,436
1959	21,777	8,460
1960	19,490	7,342
1961	21,236	9,054
1962	26,039	11,073

¹ Includes only ferrous type gas and electric welding rod.

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	2,353	7,015	9,368	1,231	6,682	7,913	3,584	13,697	17,281
1961	873	3,924	4,797	1,103	6,301	7,404	1,976	10,225	12,201
1962	1,093	6,754	7,847	1,137	7,372	8,509	2,230	14,126	16,356

Source: Business Finance Division. - DBS.

Directory of Firms: Wire and Wire Products Manufacturers, 1962

Note: This is not intended to be a complete list of concerns which manufacture wire and wire goods in Canada, but is merely a list of the firms which the Bureau has classified to the Wire and Wire Goods Industry. This industry includes only plants that manufacture wire of iron or steel or wire goods as their chief products. Producers of copper wire and cable for electrical purposes have been classified elsewhere.

Name	Address
Newfoundland:	
Dawes' Nail and Hardware, Ltd.	Bay Roberts
Nova Scotia:	
Dominion Steel & Coal Corp. Ltd. (Sydney works).....	Sydney
New Brunswick:	
New Brunswick Wire Fence Co. Ltd.	Moncton
Grand Falls Industries, Ltd.	Grand Falls
Quebec:	
Air Reduction Canada, Ltd.	Montreal 9
Anglo-Canadian Wire Rope Co. Ltd.	Lachine
Argo Machine Tools, Inc.	Montreal 10
Artistic Wire Works, Limited	Montreal
Beaver Wire Mfg. Co.	Montreal
Bélanger, J.A.	Rivière Bleue
Canadian Blank Book Company	Montreal 14
Canadian Staples, Limited	Montreal 28
Champion Tire Chain Co. Ltd.	Montreal 24
Christie, George, Canada, Limited	Three Rivers
City Wire & Iron Products Co.	Montreal
Cogan Wire and Metal Products, Limited	Montreal 4
Dominion Steel & Coal Corporation, Limited.....	Montreal
Dominion Wire Rope, Limited	Lachine
Eutectic Welding Alloys Co. of Canada, Ltd.	Montreal
Ferro Products Co.	Montreal
Foster Springs, Limited	Granby
General Spring Co. Ltd.	Montreal
Gertard Co. Limited	St-Laurent
Heiplex Springs, Ltd.	Montreal 31
Industrial Fasteners, Ltd.	Marieville
Industrial Screw Machine Works, Ltd.	Montreal 9
Johnson Wire Works, Ltd., The	Montreal 30
Jones Lamp Frame Co.	Montreal
L'Air Liquide	Montreal
Laramée Wire Works	Montreal
Lautentian Wire Products, Reg'd.	Montreal
London Zig Zag Spring, Ltd.	Montreal 5
Machineries Pont-Rouge, Ltée	Pont-Rouge
Manhattan Wire Works Co. Ltd.	Montreal 24
Maxwell Wire Products, Ltd.	Montreal
Mercury Wire & Nail Co. Ltd.	St. Hyacinthe
Montfield Metal Products, Ltd.	Montreal
New York Wire Works, Ltd.	Montreal
No-Sag Spring Co. Ltd.	Montreal
Nucleonic-Electric Equipment & Development Company	Montreal
Ontario Wire Works Mfg. Limited	Montreal 24
Pan-American Screw, Corp.	Montreal
Pennsylvania Wire Products	Montreal 24
Precision Automatic Machines Screws Prods. Reg'd.	Montreal 5
Sido Limitée	Granby
Slvaco Wire and Nail Co.	Marieville
Steel Company of Canada, Ltd.	Montreal
Steel Company of Canada, Ltd.	Lachine
Steel Heddle Co. of Canada, Limited	Granby
Superior Wire & Paper Products, Ltd.	Montreal
Triplex Engineering Co. Ltd.	Montreal
Variétés Industrielles, Enrg.	Sherbrooke
Wallace Barnes, The, Co. Limited	Valois
Webster & Horsfall (Canada), Ltd.	Three Rivers
Whitehouse Fastenings, Limited	Montreal
World Wide Staple Co. Inc.	Montreal 11
Ontario:	
Accumatic Mfg. Co. Ltd.	Toronto 19
Acorn Manufacturing, Ltd.	Port Erie
Andrews Wire Works of Canada, Ltd.	Watford
Armour Art Craft	Toronto 2
Artcraft Shoppe	Toronto 2
Argos Mfg. Co.	Stoney Creek
Atlas Nail & Wire Company	Kitchener
Automatic Screw Machine Products, Ltd.	Toronto 3
Automatic Staples Mfg. Ltd.	North York
Beaverton Specialties, Limited	Beaverton
Bennett Wire Products Co.	Toronto 5
Bohne Industries, Ltd.	Toronto 3
Bostitch (Toronto), Ltd.	Toronto
Breen Wire Products, Ltd.	Toronto 8
Bull Dog Lacer Co. of Canada, Ltd.	Hamilton
Burke-Thumm, Ltd.	Toronto 5
Cameron Products	Toronto

Directory of Firms: Wire and Wire Products Manufacturers, 1962 - Continued

Name	Address
Ontario - Continued:	
Canada Wire & Cable Co. Ltd.	Smiths Falls
Canadian Rockwell Co.	Toronto 16
Canadian Spring Co.	Toronto 9
Canadian Wire Specialties Co.	Toronto 19
Capital Metal Industries, Limited	Toronto
Capital Wire Cloth and Mfg. Co. Ltd.	Ottawa 3
Central Electric Wire, Ltd.	Perth
Charlton, J.J., Co.	Willowdale
City Wire Works Co.	Toronto 3
Collison-Goll, Ltd.	Toronto 9
Cooper Bros & Wilson	Toronto
Diamond Hard Company	Toronto
Doherty Industries, Ltd.	Toronto
Dominion Chain Company, Limited	Niagara Falls
Dominion Fasteners, Limited	Hamilton
Dominion Fence & Wire Products, Ltd.	Toronto
Dominion Screw Co. Ltd.	Toronto 9
Dominion Steel & Coal Corp. Limited	Etobicoke
Dominion Tack & Nail Company, Limited	Galt
Domora Jobbers	Belleville
Donald Ropes & Wire Cloth, Limited	Hamilton
Elgin Springs & Steel Products	Cayuga
Federal Bolt & Nut, Corp.	Toronto
Ferrier Wire Goods Company	Toronto 9
Fitzgerald-McAvoy Wire Goods	Rexdale
Florists' Wire Works	Toronto 8
Frost Steel & Wire Company, Limited	Hamilton
G.W. Wire Specialties	Hamilton
Garden City Wire Works Co.	St. Catharines
General Spring Products, Ltd.	Kitchener
Gerrard Company, Ltd.	Hamilton
Gibb Manufacturing Co. Ltd.	Port Credit
Globe Spring and Cushion Co. Limited	Toronto 3
Greening Industries, Ltd.	Hamilton
Greening Industries, Ltd.	Midland
Greening Industries, Ltd.	Orangeville
Griplock of Canada, Limited	Scarborough
Haca Supplies, Ltd.	Hamilton
Hamilton Wire Products Company, Ltd.	Hamilton
Hamond Industries, Ltd.	Toronto
H-B Beck Precision Spring Co.	Hamilton
Hollup Corporation, Limited	Toronto
Hoskins Alloys of Canada, Ltd.	Rexdale
Hvde Spring & Wire (Canada), Ltd.	Brantford
Imperial Wire Specialty	Toronto 4
Interlake Steel Products Co. Ltd.	Thorold
Isard-Lefevre Mfg. Co. Ltd.	Toronto 8
Kelson Spring Products	Toronto 4
Kitchener Spring Co. Limited	Waterloo
Largo Manufacturing Co.	Toronto 2
Lewis Screw & Fittings, Ltd.	Galt
Linread Canada, Ltd.	Guelph
Lundy Steel Products, Limited	Dunnville
Marcus Spring Co. Ltd.	Toronto 3
Marshall Specialty Co. Ltd.	Toronto
May, Bruce, Manufacturing	Belleville
Mercury Welding Machine Shop	Oshawa
Mills Steel Products, Ltd.	Hamilton
Morrow Screw & Nut Company, Limited	Ingersoll
Myers Wire Products	Dixie
National Socket Screw Mfg. Co. Ltd.	Beamsville
National-Standard Company Canada, Ltd.	Guelph
Neat Clip Manufacturers	Ottawa 3
Niagara Wire Weaving Co. Ltd.	Niagara Falls
No-Sag Spring Company, Limited	London
Otomarc Manufactures, Ltd.	Toronto 3
Oxford Precision Products, Ltd.	Woodstock
Parmenter & Bulloch Mfg. Co. Ltd.	Gananoque
Perrin Industries, Limited	Toronto
Point Display, Limited	Toronto
Poplar Screw Mach. Prods. Ltd.	Toronto
Premier Spring & Mfg. Co.	Ayr
Prestole Corp. of Canada	Rexdale
Power Fastener Co. Ltd.	Toronto 4
Pritchard, E.W., and Sons	Toronto 6
Rice Wire Products	Scarboro
Robertson, P.L. Mfg. Co. Ltd.	Milton
Rollit Products, Limited	Brockville
Sample, J.R.	Toronto
Senco Products (Canada), Ltd.	Toronto
Servos & Bateman	Hamilton
Small, Y.W., Parts, Ltd.	Willowdale
Steel Co. of Canada, Ltd.	Swansea
Steel Co. of Canada, Ltd.	Brantford
Steel Company of Canada, Limited	Hamilton
Steel Company of Canada, Limited	Hamilton
Steele Bros. (Guelph), Ltd.	Guelph
Steele's Wire Springs, Limited	Guelph
Tamco, Limited	La Salle
Thomson (Canada) Rivet Co. Ltd.	Gananoque
Toronto Wire Works Co.	Toronto 3

Directory of Firms: Wire and Wire Products Manufacturers, 1962 - Concluded

Name	Address
Ontario - Concluded:	
Tyler, W.S., Co. of Canada Ltd.	St. Catharines
Vanstone, E.G. & Son, Ltd.	Toronto 3
Wallace Barnes Company, Limited	Hamilton
Wallbank, P.J. Mfg. Co.	Plattsville
Warren Automatics	Peterborough
Wlens Screw Products, Ltd.	Burlington
Willow Mfg. Co. Ltd.	Toronto 15
Wiresmith Manufacturing Co.	Toronto
Wittick, J.R. & Co. Ltd.	Toronto
Yonge Hanger & Wire Products, Ltd.	Toronto 9
Young, G.R. Screw Machine Prod. Ltd.	Toronto 18
Young Spring & Wire Corp. of Canada, Ltd.	Windsor
Zenith Screw Company, Ltd.	Toronto
Manitoba:	
Damascus Steel Products, Ltd.	Winnipeg
Nolin-Hunter Mfg. Co.	St. Boniface
Regional Products Company	St. Boniface
Wire & Metal Specialty Co. Ltd.	Winnipeg
Alberta:	
Alberta Wire Works	Edmonton
Atlas Ty and Supply Co. Ltd.	Calgary
Drader Manufacturing, Ltd.	Edmonton
Gates Forming Accessories, Ltd.	Calgary
Irving Wire Products, Ltd.	Calgary
Soldan Fence Products	Edmonton
Soroy Upholstery Springs	Edmonton
British Columbia:	
Advance Wire Products, Ltd.	Vancouver 9
B.C. Anchor Fence Co. Ltd.	Vancouver 1
B.C. Diesel Service Engineers, Ltd.	Vancouver 9
British Reinforced Concrete, Ltd.	Vancouver
British Ropes Canadian Factory, Limited	Vancouver 12
Butler, E.A., Mfg. & Eng. Limited	Abbotsford
Capital Wire Cloth Western, Limited	New Westminster
Chamberlain Spring Co. Ltd.	Vancouver 10
Columbia Mfg. Co. Ltd.	Vancouver
Gerrard Co. Limited	Vancouver
Hardfacing Alloys (Canada), Ltd.	Burnaby
Industrial Wire & Iron Works	Vancouver
Justesen, E.P. Mfg. Co.	North Burnaby
Morrison Steel & Wire Co. Ltd.	Vancouver 9
No-Sag Spring Co. Ltd.	Vancouver
Pacific Bolt Manufacturing Co. Ltd.	Vancouver 14
Staymet Alloys, Limited	Haney
West Coast Wire Works, Limited	Vancouver 15
Western Metal Products, Ltd.	Vancouver 6
Western Wire Products, Ltd.	Vancouver 5
Western Wirecraft Co.	Vancouver 6
Wright's Canadian Ropes, Limited	Vancouver

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

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.

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