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BATTERY MANUFACTURERS 1964

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OF STATISTICS

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BATTERY MANUFACTURERS

1964

For statistical purposes the industry titled Battery Manufacturers covers the operations of establishments primarily engaged in manufacturing storage batteries including wet and dry batteries for automobiles, trucks, tractors and buses as well as storage batteries for farm use, communications systems and railroad equipment.

The total revenue of the establishments in this industry was \$57,597,000 of which \$49,377,000 was derived from products of own manufacture.

Products manufactured by firms in this industry included batteries, natural and synthetic graphite products, anti-freeze, flashlights, capacitors and castings.

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.
- revised figures.
- x confidential to meet secrecy requirements of the Statistics Act.

TABLE 1. Principal Statistics, 1961-64

					ufacturing		8, 1961 - 6	-		Т	otal activ	rity	
Year and	Estab-		duction sated work		Cost of	Cost of	Value of shipments		Working and p	g owners artners	Emp	loyees	
province	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	Value added
	No.		'000			\$'000				\$'000		\$10	000
1961											183		
Totals	27	1,377	3,034	5,390	499	20,385	39, 649	18,742			2,080	9, 368	20,826
1962								į					
Totals	26	1,435	3,071	5, 714	548	23, 418	42,321	19,083		_	2, 132	9, 698	21,549
1963													
Newfoundland	_	_	_		_	_	_	_			_		
Prince Edward Island	_	-	_		_				-	_	_	_	_
Nova Scotia	1	x	x	x	x	x	x	x	_	-	x	x	x
New Brunswick	_	_	_			_			_	_	2017	_	_
Quebec	3	x	x	x	x	x	x	x	_	_	X	x	x
Ontario	11	946	2.0ii	4,088	329	16, 583	30,768	13,597		-	1,438	7,014	15, 18 i
Manitoba	3	x	X	x	x	x	x	x	_	_	x	х	x
Saskatchewan			_	_	_	_	_	-	-	_	_	_	
Alberta	2	х	х	х	х	x	x	x	_		x	x	х
British Columbia	5	48	102	200	21	690	1, 167	467	_		63	280	488
Yukon and Northwest Territories	_	_	no.	_	_	-	_	_	_	_	_		_
Totals	25	1,449	3,046	5,992	522	24,872	46,074	20,042			2, 143	9,902	21,914
1964													
Newfoundland		_	_	_	_		ng.	_	_	-	_	_	_
Prince Edward Island	-	_	Milys	_	_	_			-	_	_	Ada	_
Nova Scotia	1	x	x	x	x	x	x	x			x	x	x
New Brunswick	449	_	Tre.	-				_	-	-		_	_
Quebec	3	x	x	х	х	х	x	x	_	_	x	x	x
Ontario	11	998	2, 105	4, 295	352	16,898	32, 187	15, 440	_		1, 504	7,460	18, 113
Manitoba	3	x	x	х	x	x	x	x	_	-	x	x	x
Saskatchewan	_	_	_	_	- Marie		_		_	_1	_	_	_
Alberta	2	x	х	x	х	x	x	x	_	-	x	x	x
British Columbia	6	x	x	х	x	x	x	x	x	x	x	x	х_
Yukon and Northwest Territories	-	_	-	-	-	-		-	-	-	-		-
Totals	26	1,504	3, 198	6, 225	555	26, 313	49,377	23,522	x	x	2,214	10,463	26, 591
	20	2,504	0, 100	0, 200	333	-0,010	20,011	-0, 540		1	-,~ ==	10, 403	-0,301

TABLE 2. Principal Statistics classified by Size Group based on Value of Shipments of Goods of Own Manufacture, 1963 and 1964

				Man	ufacturing	activity				Т Т	otal activ	vity	
Size group	Estab- lish- ments		duction a ated work		Cost of	Cost of materials	Value of shipments of goods	Value	Working and pa	owners	Empl	oyees	Value
		Number	Man- hours paid	Wages	elec- tricity	and supplies	of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	added
	No.		'000			\$*000				\$'000		\$'(000
1963								1					
10,000 to \$ 24,999	} 4	8	16	29	1	56	115	61	-	_	11	43	9
100,000 " 199,999 200,000 " 499,999 500,000 " 999,999 ,000,000 " 4,999,999	6	101	213	329	31	1,139	2,156	1,038	_	_	132	507	1,0
,000,000 and overead offices, sales offices and auxiliary units	} 15	1,340	2,817	5,634	490	23,677	43,803	18,943	-	-	1,863	8,340 1,013	20,8
	***	***	• • •				* * *	0 0 4	4				
Totals	25	1,449	3,046	5,992	522	24,872	46,074	20,042	_	_	2, 143	9,902	21,9
1964													
nder \$10,000	} 6	7	14	25	3	86	162	70	х	x	12	41	
50,000 ' 99,999	-	_	-	-	-	-	-	-	-	-	_	_	
200,000 " 499,999	1 -	100	004	-	-	1 000	0.015	1 100		_	100		
500,000 '' 999,999	5	109	221	359	30	1,663	2,915	1,177		_	139	544	1,1
000,000 and overad offices and	} 15	1,388	2,963	5,840	522	24,564	46,300	22, 275	_		1,912	8,793	25,3
auxiliary units		• • • •			* * *						151	1,085	(
Totals	26	1,504	3, 198	6, 225	555	26,313	49,377	23,522	X	1	2,214	10,463	26.

TABLE 3. Principal Statistics classified by Size Group based on Manufacturing Value Added, 1963 and 1964

				Mar	ufacturing	activity				7	otal acti	vity	
Size group	Estab- lish- ments		duction a sted work		Cost of	Cost of materials	Value of shipments of goods	Value.		owners artners	Emp	loyees	Value
		Number	Man- hours paid	Wages	elec- tricity	and supplies	of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	added
	No.		2000			\$'000				\$'000		\$'0	00
1963								}					
Under \$10,000	} 4	8	16	29	1	56	115	61	_	-	11	43	98
25,000 * 49,999 50,000 * 99,999	-	-	-	-	-	-	_	-	-	-	_	-	-
100,000 '' 199,999	3	29	57	96	6	259	549	274	-	-	39	163	274
200,000 '' 499,999 5,000,000 '' 999,999 1,000,000 '' 4,999,999 5,000,000 and over	6 4 8	198 203 1,011	423 423 2, 126	772 690 4,406	98 67 350	3,680 3,439 17,438	6,149 7,122 32,140	2,196 3,462 14,049		=	276 302 1,378	1,178 1,231 6,274	2,217 3,482 15,899
Head offices, sales offices and auxiliary units					4 * *						137	1,013	(56
Totals	25	1,449	3,046	5, 992	522	24,872	46,074	20.042	-	-	2, 143	9, 902	21,914
1964													
Under \$10,000 \$ 10,000 to \$ 24,999) 6	7	14	25	3	\$ 86	162	70	x	x	12	41	88
25.000 " 49.999	1			_		_		-	_	_	_		_
50,000 " 99,999	_	-	_	-	-	-	-	_	-	-	-	-	-
100,000 '' 199,999 200,000 '' 499,999	} 6	159	324	575	54	2,739	4,403	1,569	-	-	218	896	1,628
500,000 " 999,999 1,000,000 " 4,999,999 5,000,000 and over	5 9	257 1,081	537 2, 323	904 4,721	108 389	5,031 18,457	8,574 36,237	3,654 18,229	=	=	332 1,501	1,347 7,095	3,683 21,169
Head offices, sales offices and auxiliary units	-	-	-			***					151	1,085	(68
Totals	26	1,504	3, 198	6, 225	555	26,313	49,377	23, 522	x	×	2,214	10, 463	26, 501

TABLE 4. Principal Statistics classified by Size Group based on Total Value Added, 1963 and 1964

				Man	ufacturing	activity				T	otal activ	rity	
Size group	Estab-		duction ated work		Cost of	Cost of	Value of shipments			Working owners and partners		Employees	
	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	Value added
	No.		1000			\$'000				\$'000		\$*0	000
1963													
Under \$10,000	} 4	8	16	29	1	56	115	61	_	_	11	43	98
50,000 " 99,999 100,000 " 199,999	3	29	57	96	6	259	549	274	-	_	39	163	274
200,000 " 499,999 1,000,000 " 999,999 1,000,000 " 4,999,999 5,000,000 and over	6 4 8	198 254 960	423 537 2, 012	772 933 4. 163	98 63 334	3,680 4,145 16,733	6,149 7,807 31,455	2, 196 3, 496 14, 016	=	=	276 336 1,344	1,178 1,334 6,172	2.217 3.459 15.922
Head offices, sales offices and auxiliary units											137	1, 013	(56
rotals	25	1, 449	3, 046	5, 992	522	24, 872	46. 074	20. 042	-	-	2. 143	9. 902	21, 914
1964													
Under \$10,000 \$ 10,000 to \$ 24,999 25,000 " 49,999	} 6	7	14	25	3	86	162	70	х	x	12	41	88
50,000 '' 99,999 100,000 '' 199,999	-	-	-	-	-	-	-	_	-	_			
200,000 ** 499,999	} 8	159	324	575	54	2,739	4, 403	1,569	-	_	218	896	1,628
500,000 ' 999,999 1,000,000 ' 4,999,999	5	257	537	904	108	5, 031	8,574	3,654	-	_	332	1, 347	3,683
5,000,000 and over	} 9	1,081	2.323	4, 721	389	18, 457	36, 237	18, 229	_	_	1,501	7,095	21, 169
auxiliary units						4 * *					151	1.085	(68
Totals	26	1,504	3, 198	6. 225	555	26. 313	49, 377	23, 522	X	x	2, 214	10.463	26, 501

TABLE 5. Principal Statistics classified by Size Group based on Total Employed, 1963 and 1964

			Mar	ufacturing	activity					Cotal acti	VILY	
Estab-				Cost of	Cost of	Value of shipments	37-3			Emp	loyees	Value
ments	Number	Man- hours paid	Wages	elec- tricity	and supplies	of goods of own manu- facture	added	Number	With- drawals	Number	Salarles and wages	add ed
No.		*000			\$'000				\$*000		\$'0	00
						1						
5 7 6 4 3	10 161 326 463 489	20 342 683 977 1,024	36 - 563 1, 253 2, 264 1, 876 	3 76 120 217 106	2,727 5,606 10,488 5,961	5, 226 10, 957 16, 998 12, 689	2, 276 5, 023 6, 138 6, 494	-		15 211 481 584 715 — 137	56 652 2,095 2,871 3,016 1,013	148 2, 296 5, 060 6, 098 6, 367 (56 21, 914
20	11110	5,010	0,004									
6 7 5 4 4 4	7 175 245 399 678	371 483 880 1.451	25 629 984 1,601 2,986	82 110 153 206	3. 933 5. 653 6, 641 10, 000	6, 274 10, 951 12, 471 19, 518	70 2,348 5,349 6,092 9,663	x	x	12 229 369 514 939 —	952 1,809 2,172 4,405	2, 363 5, 496 6, 253 12, 369 (68 26, 501
	No. 5766433	No. rel rel	No. Manhours paid	Number Manhours paid Wages	No. Man-hours paid Wages Cost of fuel and electricity	No. Manhours Wages Cost of fuel and electricity Store	No. Manhour hour hour hour hour hour hour hour	No. Manhours Wages Cost of fuel and electricity Manhours paid No. *000	No. Manhours Wages Cost of fuel and electricity Stoppiles Stoppile	No. Manhours Manhours Paid P	No. Man-hours paid Mages Mages paid Number Number	State State Itsh ments Number Manhours paid Wages paid Wages State S

TABLE 6. Principal Statistics classified by Type of Organization, 1963 and 1964

				Mar	ufacturing	activity				*	Fotal acti	vity	
Fype of organization	Estab- lish-		oduction ated work		Cost of	Cost of	Value of shipments			ing owners Emp		oyees	
	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	Value added
1963	No.		'000			\$'000)	1		\$'000		\$*0	00
Individual ownerships	-	-	-	_	-	_	_	-	_	_	-	_	_
Partnerships		-	_	-	-	_	_	_	_	_	_		_
Incorporated companies	25	1,449	3,046	5,992	522	24,872	46,074	20,042			2,006	8,890	21,970
Co-operatives	-	-	-	_	_			_			_	_	_
Head offices, sales offices and auxiliary units											137	1,013	(56)
Totals	25	1,449	3,046	5,992	522	24,872	46,074	20,042	-	_	2,143	9,902	21,914
1964													
Individual ownerships)												
Partnerships	> 26	1,504	3,198	6,225	555	26,313	49,377	23,522	x	×	2,063	9,378	26,569
Incorporated companies	J												
Co-operatives	-		= -	-	-	_=	_	_			_	_	
Head offices, sales offices and auxiliary units	# D 9	4 4 4			4 + +						151	1,085	(68)
Totals	26	1,504	3,198	6,225	555	26,313	49,377	23,522	×	x	2,214	10,463	26,501

TABLE 7. Calculation of Output, Input and Value Added, 1963 and 1964

	Manufacti activit		Non-manufa activiti		Tota activi	
	1963	1964	1963	1964	1963	1964
			\$'00)		
Output					1	
1. Shipments and other revenue	46,074	49,377	6,500	8,220	52,574	57,597
Inventories - Goods of own manufacture:						
Add closing - Goods in process	2,503	2,897	4 9 4	0 4 3	2,503	2,897
Finished goods	3,236	3,739			3,238	3,739
Deduct opening - Goods in process	2,510	2,623			2,510	2,623
Finished goods	3,868	2,999			3,868	2,999
2. Net inventory change	(637)	1,014			(637)	1,014
3. Gross output (1+2)	45,437	50,391	6,500	8,220	51,937	58,611
Input	PARTIE !					
. Purchases of goods not of own manufacture	• • •		4,217	5,217	4,217	5,217
Inventories - Goods not of own manufacture:						
Add opening		***	996	880	996	880
Deduct closing		***	880	1,131	880	1,131
. Cost of goods sold (not of own manufacture)		• • •	4,333	4,966	4,333	4,966
. Materials, supplies, etc.	24,872	26,313	296	276	25,168	26,589
7. Fuel and electricity	522	555			522	555
. Gross input (5 + 6 + 7)	25,394	26,868	4,629	5,242	30,023	32,110
Value added (3 - 8)	20,042	23,522	1,872	2,978	21,914	26,501

TABLE 8. Employment and Payroll, 1963 and 1964

					Employ	yees						Salari	es and wa	ges	
Year and		Product related			Admi			les	To	tal	Product	on and	Admin-	Colos	
province	Manufa	cturing	01	ther	and o			bution	10	tar	related v	vorkers	istra- tive and	Sales and distri-	Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufac- turing	Other	office	bution	
					numb	er							\$'000		
1963															
Newfoundland	_	_	_	_	_	_	_	_	-		-	_	_		-
Prince Edward Island						2	_	_	_			-	-	_	_
Nova Scotia	x _	X	X	Х	X	x	х	x	X	X	X	X	X	X	X
New Brunswick	×	x	×	x	x	x	x	x	x	_			_	_	
Quebec	662	284	Å	7	221	112	130			425	4 000	X	X	X	X
Ontario	X	X	x	x	221 X	X X	130	22 x	1,013		4,088	23	1,963	939	
Manitoba					^_			^_	^_	х	X	X_	X	Х	X
Saskatchewan	x	x	x	x	x	x	x	x	x		_	-		_	_
Alberta	39	9	_	Α	10	3	2		51	12	x 200	Х	X 73	x 7	X
British Columbia	23				10	3	4		31	12	200	-	.13	-	280
Yukon and Northwest Terri- tories	_	-	-	-	-	-	-	-	_	_	-	-	_	_	_
Totals	1,056	393	-	7	333	164	168	22	1,557	586	5,992	23	2,705	1, 182	9, 902
1964															
Newfoundland	_	-	-	-	_	-	-	_	_	_	-	-	_	_	_
Prince Edward Island	_		-	-	-	-	-	-	_	_	-	_	_	_	
Nova Scotia	х	х	-	-	х	x	-	_	x	x	x	-	х	_	х
New Brunswick	-	_	-	-	-	-	-	-	-	-	_	-	-	_	-
Queliec	X	х		-	х	x	X	-	х	X	ж		x	x	x
Ontario	675	323	-	7	231	105	142	21	1,048	456	4, 295	30	2,081	1,054	7,460
Manitoba	X	х	-	-	X	x	x	-	x	X	X	-	x	x	x
Saskatchewan	-	-	-	_	-	-	-	-	_	-	_	-	-	_	_
Alberta	X	x	-	-	X	X	×	-	x	x	х	-	x	x	х
British Columbia	х	х	-	-	х	x	x	-	х	x	x	-	x	х	x
Yukon and Northwest Terri- tories	_		-	-	_	_	_	_	_	_	_	_	-	_	_
Totals	1,071	433	_	-7	347	153	182	21	1,600	614	6, 225	30	2,898	1, 310	10, 463

TABLE 9. Production and Related Workers, - Manufacturing Activity, 1963 and 1964

Month	196	33	196	4
MOUTH	Male	Female	Male	Female
		numb	ег	
Establishments reporting monthly detail (large establishments only):	1		1	
January	995	328	1, 138	460
February	992	320	1, 126	46
March	960	330	1,095	493
April	982	350	1,026	46
May	1,001	383	1,022	47
June	1,055	416	1,049	43'
July	1,007	413	1,053	38
August	1,098	420	1,060	43
September	1,125	427	1,049	42
October	t, 144	432	1,071	396
November	1, 161	477	1,079	38
December .	1, 138	426	1,075	39
Averages	1,056	393	1,071	43
Talablahments reporting annual averages (small establishments only)				
Average for all establishments	1,056	393	1,071	43

TABLE 10. Inventories, 1964

		Manufa	cturing		Non- manufacturing	
Province	Materials, supplies, etc.	Goods in process	Finished goods of own manufacture	Total	Products or materials purchased for resale	Total inventories
Chantage			book value	\$'000		
Opening:						
Newfoundland	_			-	_	
Prince Edward Island	-	_		_	_	_
Nova Scotia	x	x	X	X		X
New Brunswick	_		_	_	_	
Quebec	x	X	X	X	х	X
Ontario	2,213	1,819	2,027	6,058	713	6,771
Manitoba	x	x	X	х	x	X
Saskatchewan	-	_	-	_	_	_
Alberta	Х	х	х	Х	X	X
British Columbia	х	х	х	x	x	X
Yukon and Northwest Territories	-	_	_	_	-	-
Totals	4,033	2,623	2,999	9, 654	880	10,534
Closing:						
Newfoundland	-	-	_	_	_	-
Prince Edward Island	_	_	_	_	_	_
Nova Scotia	x	x	x	x	_	x
New Brunswick	-	_	_	_	_	_
Quebec	x	х	x	x	x	x
Ontario	2,114	1,955	2,394	6,463	933	7,396
Manitoba	x	х	х	x	x	x
Saskatchewan	_	-	_	-	_	**
Alberta	х	x	x	x	х	Х
British Columbia	x	x	х	x	x	X
Yukon and Northwest Territories	-		-	_	_	-
Totals	3, 881	2.897	3, 739	10, 518	1.131	11,648

TABLE 11. Purchased Fuel and Electricity Used in Manufacturing Activity, 1963 and 1964

	1963		1964	
Description	Quantity	Cost	Quantity	Cost
		\$'000		\$'000
1. Large establishments reporting commodity detail:				
Bituminous coal:				
(a) From Canadian mineston	250	3	314	4
(b) Imported	_	_	_	_
Sub-bituminous coal (from Alberta mines only)	_		-	_
Anthracite coal	350	4	_	_
Lignite coal	482	3	423	2
Coke	_		-	_
Gasoline (including gasoline used in cars and trucks) Imp. gal.	21, 180	9	14,140	6
Fuel oil including kerosene or coal oil	750, 829	76	678, 480	66
Wood cord	_		_	_
Gas:				
(a) Liquefied petroleum gases Imp. gal.	27,070	4	115, 926	20
(b) Other manufactured gas			_	_
(c) Natural gas	111,437	87	115,202	96
Other fuel		11		
Electricity purchased kwh.	34,155,647	326	37, 252, 431	348
Steam purchased		-		_
. Small establishments not reporting commodity detail:				
Estimate for fuel and electricity				14
3. All establishments:				
Total fuel and electricity used		522		555

TABLE 12. Materials and Supplies - Manufacturing Activity, 1963 and 1964

		1963		1964	
Description		Quantity	Cost	Quantity	Cost
			\$'000		\$'000
1. Materials used:				100000	
Ammonium chloride (sal ammoniac)		1, 274, 044	80	1, 381, 600	88
Battery boxes and containers			3,629		2, 962
Carbon plates, blanks, etc		2 0 9	340	***	362
Carbon electrodes.			209		216
Graphite	lb.	316,039	16	217, 696	10
Insulating waxes			19		21
Lead oxide:					
Litharge	lb.	10,761,950	1,293	11,078,151	1,503
Red lead	4.4	225, 771	30	255, 778	40
Manganese dioxide	44	4.037,317	434	4,697,573	530
Sulphuric acid, 100%	44	8, 302, 620	131	8, 786, 306	156
Battery separators:					
Wood	0.44.4		1	***	79
Other			1,573	4 + 0	1,547
Zinc chloride		712, 225	54	755, 258	61
iron and steel:					
Stampings	ton	27	12	36	30
Other forms			263		116
Non-ferrous metals (all forms);	****				
Brass and bronze	1h	8, 336	6	16, 216	12
Copper:		0,000		204 11120	
Wire, bare	44	4, 353	3	3,973	3
			8	0,000	6
Wire, insulated		50.366	20	52, 920	21
Other forms	10.	30, 300	20	32, 540	~ 1
Lead:		25 120 000	2, 521	23, 633, 278	3,070
Pig (pure)		25, 129, 808			
Antimonial	*****	31, 944, 220	3, 645	31, 356, 947	4, 562
Other forms		296, 438	39	536, 276	77
Mercury	1	4, 242	12	4, 699	18
Zinc (all forms)		0 0 0	750		928
Other non-ferrous metals		***	43		6
Asphalt and pitch		***	92	* * *	112
Paint, stains, lacquers, etc.			5		5
All other materials and components used	1,014		7,798		7, 724
2. Containers and other packaging materials and supplies used	****	- 6 9	802		713
3. Operating, maintenance and repair supplies used (excluding fuel)	94879	***	787	***	937
4. Amount paid out to others for work done on materials owned by establishments			258		380
Totals			24, 872		26,313

¹ No detailed information on materials used was collected from small establishments, the estimated costs for which are included here. The estimated cost was \$333,768.

TABLE 13 Shipments of Goods of Own Manufacture, 1963 and 1964

Paradistan	Value		
Description	1963	1964	
	\$'000		
1. Ali products shipped (see Table 14)	48, 419	49,783	
Amount received in payment for work done on materials and products owned by others Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not	16	24	
be deducted from individual commodity items described above	(361)	(431)	
Net adjustment for establishments receiving progress payments	-	-	
Total adjusted value of shipments and work done	46, 074	49, 377	

TABLE 14. Shipments of Selected Goods of Own Manufacture - All Industries, 1963 and 1964 (Includes shipments from other industries which manufacture, as a secondary activity, the commodities listed)

Туре		1963		1964	
		Quantity	Value	Quantity	Value
			\$'000		\$'000
Dry cell batteries:					
6-inch batteries	No. of cells	1,795,806	1,332	1,568,228	1,092
Radio batteries for non-portable sets	44	43,104,106 5,460,545	3,183 465	49,167,467 3,922,631	3,567 330
Flashlight batteries	#4	41,479,826	5,250	45, 189, 494	5,582
Hearing-aid batteries; "A" batteries "B" batteries		}	1,756	* * *	2,235
All other dry batteries)			
Totals			11,986	9 0 a	12,800
. Electric storage batteries:					
Automotive type (all types primarily designed to fit passenger cars): For initial installation For replacement purposes	batteries	626,445 2,282,785	5,538 19,055	762,846 2,181,230	6,952 19,634
Heavy-duty transport, motor coach and diesel starting batteries:	44	54,526	745	43.292	572
For replacement purposes	44	98,795	1,716	107,539	1,981
Marine	44	5,522	240	5,471	25"
For farm lighting	cell	6,762	132	x	х
For railway service (excluding railroad signalling but including diesel	44	00.000		00 500	
starting, air conditioning, car lighting)	24	26,177 35,968	1,050 2,345	20,755	891
For all other purposes (aircraft, motorcycle, communication, etc.)					2,998
For all other purposes (alrerait, motorcycle, communication, etc.)		***	2,059	***	∠, 95;
Totals			32,880		36,24

List of Establishments classified to This Industry, 1964

(Does not include establishments classified to other industries, which as a secondary activity, manufacture products evident of this tangenty

Name	Location		
Nova Scotia:			
Surette Battery Co. Ltd.	Springhill		
Québec:			
Cipel (Canada) Ltd. Electric Storage Battery Co. (Canada) Ltd., The Prest O Lite Ltd. (Battery Division)	Valleyfield 170 St. Georges St., St. Johns Drummondville		
Ontario:			
Burgess Battery Company Div. of Servel (Canada) Limited Electric Storage Battery Co. (Canada) Ltd., The Electric Storage Battery Co. (Canada) Ltd., The Globelite Batteries Limited Gould-National Batteries of Canada Ltd. Hay Battery Co., Ltd. Mallory Battery Company of Canada Limited Prest O Lite Ltd. (Battery Div.) Silvercel of Canada Ltd. Union Carbide Canada Limited Union Carbide Canada Limited	Fort Erie		
Manitoba:			
Allan Batterles Ltd. Globelite Batterles Ltd. Ray-O-Vac (Canada) Limited	1376 Winnipeg Ave., Winnipeg 3 1717 Wellington Ave., Winnipeg 21 1800 Sargent Ave., St. James		
Alberta:			
Electric Storage Battery Co. (Canada) Ltd., The Prest O Lite Ltd. (Battery Division)	104-58th Avenue S.E., Calgary 58th Ave & 4th St. S.E., Calgary		
British Columbia:			
Dollina Enterprises Ltd. Francis Battery & Tires Ltd. Giant Battery Co. Ltd. Globelite Batteries Ltd. (Pacific Division) Kamloops Battery Mfg. Co. Major Batteries Ltd.	2150 Blanshard St., Victoria 1280 Howe St., Vancouver 202 No. 6 Rd., Rick of the Kamloop		

CONCEPTS AND DEFINITIONS

Census of Manufactures

General

The Census of Manufactures is an annual mail survey covering Canada's Manufacturing Industries. It is based on the Standard Classification of Industries and full details concerning the system may be found in the Standard Industrial Classification manual. Catalogue No. 12-501 which is available from the Queen's Printer or the Dominion Bureau of Statistics. In summary, the Classification as it relates to the manufacturing industries provides for a breakdown into 140 industries arranged in 20 major industry groups. Of the 140 (3 digit) industries, 18 are further broken down into 56 (4 digit) sub classes. At the Canada level, principal statistics are collected and compiled for 176 separate industries. They cannot all be published separately by province, however, because of the confidential nature of the data in certain provinces.

The reporting unit for the Census is designated as the establishment (see definition of "Establishment" in following section) and a return is requested from every establishment classified to a manufacturing industry. Although respondents are required to submit reports covering the calendar year, financial year reports other than the calendar year are accepted in instances where respondents find it impossible to supply calendar year data from accounting records. When an establishment is operated for only part of a year a report is required covering the period of operation.

There are four different questionnaires used in the Census of Manufactures; (a) short form (b) long form (c) head office questionnaire and (d) commodity questionnaire. The short and long forms are used to obtain principal statistics and commodities shipped from establishments classified to manufacturing industries and differ only in the amount of detail requested. The short form is a single-sheet questionnaire sent to small manufacturers generally reporting shipments of less than \$100,000; this cut-off, however, varies somewhat between industries. The head office questionnaire is generally used for company head offices and/or auxiliary units separately located from the manufacturing establishment(s), (see following notes on Head offices and auxiliary units). The Commodity questionnaire is used to survey certain establishments which are coded (on the basis of their principal activity) to industries other than manufacturing in the Standard Industrial Classification system, but which undertake some manufacturing as a subsidiary activity. This single-sheet questionnaire is designed to collect information on the quantity and value of goods of own manufacture shipped by such establishments in order to achieve full coverage of domestically manufactured commodities (see the following note under Shipments).

The results of the Census are presented in some 140 publications. In addition to these annual industry publications there are annual summary reports for Canada and the provinces and special reports giving principal statistics by detailed geographic areas, by type of ownership and size of establishment. A special annual report covering the shipments of all manufactured commodities arranged in alphabetical order is also published.

Since 1960 the following major changes have been implemented in the Census of Manufactures: (a) a revised Standard Industrial Classification (b) a new establishment definition and (c) an extension of the establishment definition to cover the non-manufacturing activities of manufacturing establishments. The statistics presented in the various 1963 reports reflect the complete implementation of these changes and enable comparisons to be made with the years 1961 and 1962. For a complete description of the procedures followed in establishing the revised series, reference should be made to the Explanatory Notes included in the 1960, 1961 and 1962 industry publications. The statistical framework within which the Census of Manufactures is now carried out is based on the following concepts and definitions which have been developed as part of a general programme to achieve a fully integrated system of economic statistics.

Establishment

A manufacturing establishment is typically a factory, mill or plant principally engaged in manufacturing activities. The majority of such establishments are firms but many firms have more than one establishment. Such firms are requested to submit a separate Census of Manufactures report for each manufacturing establishment which can meet the reporting requirements embodied in the following definition of the "establishment":

"The smallest unit which is a separate operating entity capable of reporting 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
Man-hours worked and paid
Inventories
Shipments or sales."

Each establishment is required to report on all the activities carried out within it's accounting boundaries (except income from investments such as rent, interest and dividends) and data on the different activities (manufacturing, trading in goods not of own manufacture, construction by own labour force, revenue from services, etc.) are requested to be reported separately. It should be noted that the statistics for separate activities are not completely consistent since some respondents cannot distinguish, in their records, materials, shipments and inventories relating solely to their own manufacturing activities. For example, inventory of goods purchased for re-sale may not be distinguishable from inventory of own manufactured goods. Complete consistency, therefore, can be obtained only at the "all operations" (total activity) level and for studies or statistical measures requiring accurate coordinated data, the "total" statistics should be used.

The number of establishments represents the number of operating units that are principally engaged in the activities of the manufacturing industries to which they have been classified. These units do not necessarily represent the total number engaged in the production of a commodity mainly produced in a certain industry. Some commodities are produced as secondary products in other manufacturing and non-manufacturing industries. It should be noted that head offices and auxiliary units which are surveyed separately are not included in the establishment count, (see following notes on head offices and auxiliary units).

Head Offices and Auxiliary Units

All head offices and auxiliary units of companies classified to the manufacturing industries such as sales offices, administrative offices, warehouses, laboratories, etc. are now surveyed as part of the Census of Manufactures.

These head offices and auxiliary units are either included in an establishment report or are surveyed by means of the head office questionnaire. The former is the most common case where a single establishment firm has its executive personnel, sales office, etc. located at the site of the manufacturing plant (establishment). The special head office questionnaire is generally used where a firm, regardless of the number of establishments, has separately located offices or auxiliary units. Such offices or units do not constitute establishments within the Census of Manufactures as they do not normally generate operational revenues, but give rise only to costs of operations (mainly salaries and wages) which are automatically included in the value of shipments or sales. Although not considered as establishments, and hence, not included in the "establishment" count for an industry, the operational costs are reflected in either the "Industry" statistics (3 or 4 digit level) or the "Major group" statistics (2 digit level) according to the following rules:

- (a) In the case of single establishment firms, statistics for separately located offices and units are classified to the same industry (3 or 4 digit) as the establishment;
- (b) In the case of multi-establishment firms, the statistics for such offices and units are coded to the same industry as the establishments of the firm, when all establishments are in the same industry (3 or 4 digit). When establishments of

such firms are coded (1) to different industries within a major group, (2) to industries in different major groups or (3) to industries in different divisions of the Standard Industrial Classification, then the statistics are included in the major group totals (2 digit level) in which the major part of the company's operations are classified. Although this may result in some distortion of major group statistics in the case of (2) and (3) the statistics at the industry (3 or 4 digit) level in all cases will be left free of these company-wide data.

Employees

(a) Production and related workers — Manufacturing activities

In addition to those engaged in production and assembling activities, they include those employed in storing, inspecting, handling, packing, warehousing, etc. They also include employees engaged in maintenance, repair, janitorial and watchman services and line supervisors (working foremen) engaged in similar work to that of the employees they supervise. For those establishments reporting on the "long" form, production and related workers engaged in manufacturing activity 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 12. This procedure is followed even though the establishment did not operate in all months in order to arrive at equivalent annual full-time employment. The numbers are somewhat affected by turnover, in that employment is overstated when an employee changes employment during a pay period. In the case of those establishments reporting on the "short" form, respondents are requested to report average annual figures. The man-hours of production and related workers in manufacturing activity 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.). Data on man-hours are not collected from establishments reporting on the short form. Man-hours for these establishments are estimated on the basis of ratios derived from the 1958 census. During this census all establishments reported on the long form. 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.

(b) Production and related workers — Non-manufacturing activities

Such employees include those on manufacturing establishments' payrolls engaged in activities such as construction undertaken for the use of these establishments, some outside piece-workers employed in certain industries, logging employees who are reported as part of a sawmilling establishment and any other production workers who are not engaged in manufacturing-type operations.

(c) Administrative and office employees

This category includes all executive and supervisory officials such as presidents, vicepresidents, comptrollers, secretaries, treasurers, etc., together with managers, professional, technical and research employees, superintendents and factory supervisors above the line supervisor or working foreman level, and clerical staffs. Also included are employees in activities such as advertising, credit collections, purchasing, personnel, legal, medical, etc. It should be noted that prior to 1961 this category also included working owners and partners. Also included in this category are employees located at head offices or auxiliary units separately located from the establishment; these are generally included in the figures for the province in which they are located according to the rules outlined under "Head offices and auxiliary units" above.

(d) Sales and distribution workers

This category includes office personnel whose salaries are charged to selling expense, travelling salesmen, driver salesmen, truckdrivers and their helpers, etc. It may also include some sales employees who are reported as part of a manufacturing establishment but are not working at the establishment's location. These are generally broken down by province in cases where more than 15 employees are involved in any one province. The figures exclude persons working on a commission basis who are not considered regular employees of the establishment.

(e) Total Employees

This total comprises the foregoing categories including employees located at separately located head offices and auxiliary units. The numbers of employees included under categories (b), (c) and (d) are reported in the form of annual averages and represent as closely as possible full time employment; adjustments are made when reported figures indicate the existence of part time or seasonal employment. In all the above categories, figures on employment refer to the calendar year whether or not other establishment statistics can only be reported on a fiscal year other than the calendar year.

Working Owners or Partners

These are not now included in the statistics of employees and 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. Withdrawals of working owners are defined as amounts withdrawn by owners or partners for normal living expenses excluding withdrawals for payment of income tax.

Salaries and Wages

Salaries and wages refer to gross earnings of employees 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 worker's earnings. Payments for over-time are included. Figures on salaries and wages refer to the calendar year.

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. Although fuel and electricity used is considered part of manufacturing activity it should be noted that it also includes relatively small amounts used in non-manufacturing activities since these cannot be reported separately.

Materials and Supplies

(a) 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. These statistics represent only commodity items or physical goods (cost 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. 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) Non-manufacturing activities

1. Purchases for re-sale as such

Figures represent 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.

2. 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. Amounts paid to outside contractors for construction and repair work are 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 and medical supplies, laboratory supplies, etc.

Shipments

(a) General

The figures represent revenue from all production, sales, services and related activities of reporting establishments with shipments valued in Canadian dollars at the point at which the establishment relinquishes control. 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 the form B13 "Customs Canada Export Entry" has been completed, are treated as shipments.

In those industries where work on principal products extends over a relatively long period, (Fabricated Structural Metal Industry, Aircraft and Parts Manufacturers, Railroad Rolling Stock Industry and Shipbuilding and Repair Industry) the value of production rather than the value of shipments is recorded. There are certain establishments in other industries which also operate on a basis of progress payments. For these establishments, shipments are also adjusted to work put in place on the basis of the net change in progress payments over the year.

(b) 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 (book value) 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. The value of shipments are net of returned goods, discounts, returns, allowances, sales tax and excise taxes and duties, returnable containers and charges for outward transportation by common or contract carriers. Transportation or delivery expense incurred by the reporting establishment's own carriers are included.

Shipments of goods of own manufacture of establishments which are coded to some other division of the Standard Industrial Classification (on the basis of principal activity) but which are engaged in manufacturing as a subsidiary activity

are collected by means of the Commodity questionnaire referred to earlier. Such shipments together with shipments of goods of own manufacture of establishments forming the universe of manufacturing industries are compiled and recorded in the various industry publications.

(c) Shipments of goods not of own manufacture

These figures represent the net selling value at establishment (net of discounts, returns, allowances, sales taxes and excise duties and taxes 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 such goods on a rental basis, the value of shipments represents the book value of these goods. All sales of consignment goods from other countries are included.

(d) Other revenue

Figures represent the book value of fixed assets, if any, (new construction and machinery and equipment including major repairs, alterations, additions, modifications, installation and assembly work) produced during the year for the use of reporting establishments by the establishment's 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 establishment's own employees. such as revenue from goods produced or purchased for rental (the book value of such goods are included as part of shipments of goods of own manufacture or shipments of goods not of own manufacture). servicing revenues, commissions on sales (when not included in value of sales), revenue for companyoperated cafeterias and lunch counters and revenue from outside installation or construction work not related to the establishment's 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 activities

Values represent the book values of manufacturing inventory 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. 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. Goods shipped abroad and held in inventory are included in shipments. Opening inventories may differ from the closing inventories of the previous 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.

(b) Non-manufacturing activities

Figures represent the book value of inventory of goods purchased for re-sale as such without further processing, owned by the reporting establishments and held at plants and at any warehouses or selling outlets which are treated as extensions of establishments. Other characteristics are the same as in (a) above.

Value Added

(a) By manufacturing activities

Figures are compiled by deducting the cost of manufacturing materials, supplies, etc. and fuel and electricity consumed from the (value of shipments of goods of own manufacture adjusted for changes in the value of inventories of finished goods and goods in process).

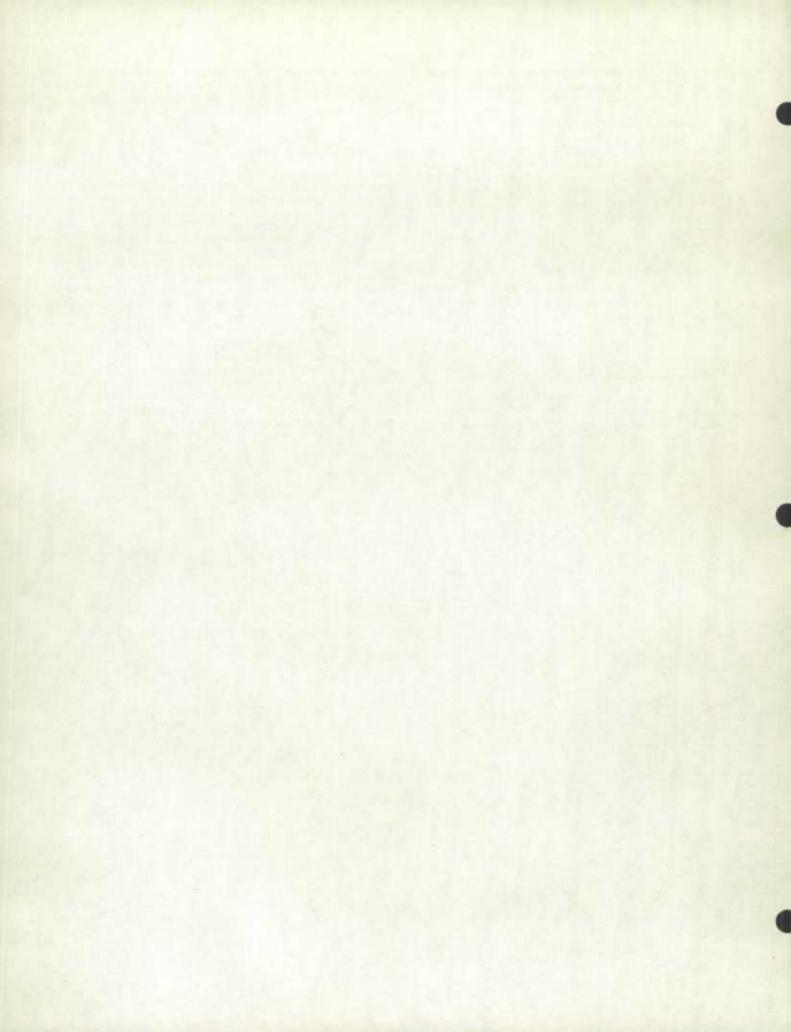
(b) By non-manufacturing activities

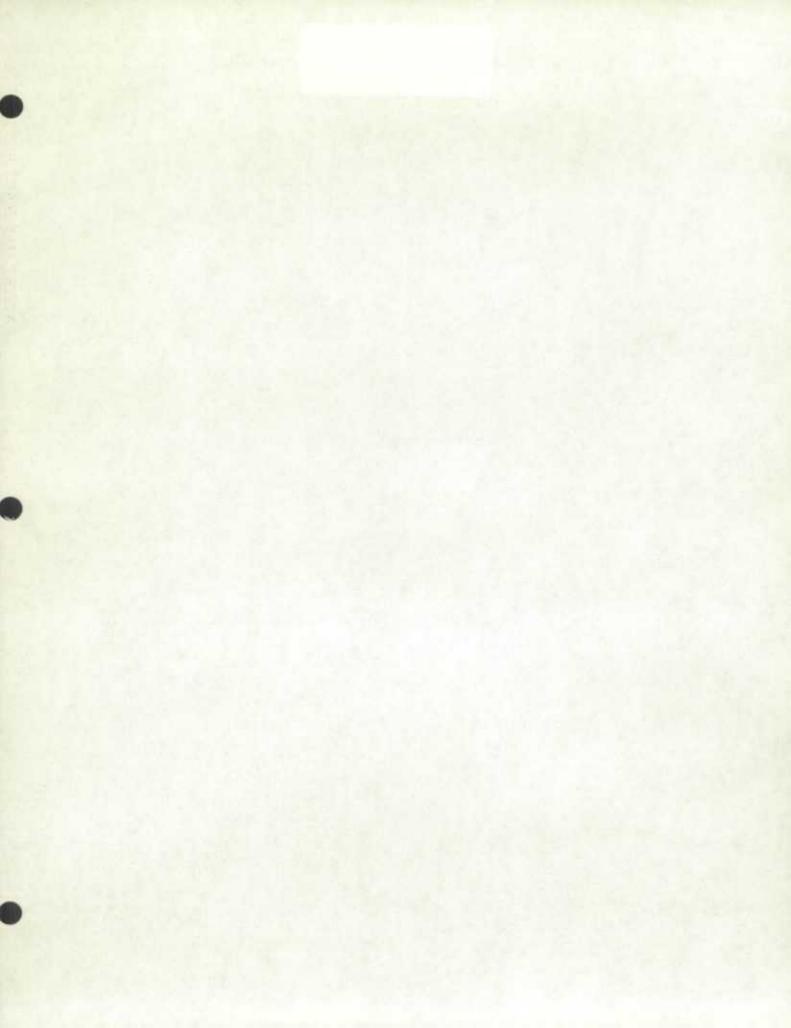
The figures are compiled by deducting the cost of goods purchased for re-sale (adjusted for changes in the value of inventories of goods pur-

chased for re-sale) and the cost of non-manufacturing materials and supplies used from the value of shipments of goods not of own manufacture, plus other revenue.

(c) By Total activities

The figures consist of value added by manufacturing activities plus value added by non-manufacturing activities. This total value added figure may, in some cases, be less than value added by manufacturing activities as a result of expenditures associated with non-manufacturing exceeding revenues from such activities or because of a decrease in inventory of goods not of own manufacture exceeding the mark-up on the sale of such goods. "Value added" is sometimes referred to as net output or 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 as part of 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".





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