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THE ADHESIVES INDUSTRY

1956

Canada
Published by Authority of
The Honourable Gordon Churchill, Minister of Trade and Commerce

DOMINION BUREAU OF STATISTICS
Industry and Merchandising Division
Metal and Chemical Products Section

885-34

NOTICE

The annual reports prepared by the Industry and Merchandising Division of the Bureau of Statistics are divided into 3 volumes, as follows: **Volume I** — The Primary Industries, including mining, forestry and fisheries; **Volume II** — Manufacturing; **Volume III** — Merchandising and Services. The volumes are made up of parts, and the parts in turn are subdivided according to the industries or provinces which they comprise.

Volume II consists of the following parts, the first two of which deal with manufacturing as a whole and the balance with the major manufacturing groups.

- I — General Review of the Manufacturing Industries, \$1.50
- II — The Manufacturing Industries of Canada, (7 sections, as follows:)
 - Section A. Summary for Canada, 25¢
 - Section B. Atlantic Provinces, 50¢
 - Section C. Quebec, 25¢
 - Section D. Ontario, 25¢
 - Section E. Prairie Provinces, 40¢
 - Section F. British Columbia, 25¢
 - Section G. The Manufacturing Industries of Canada, Regional Distribution, 75¢
- III — Foods and Beverages
- IV — Tobacco and Tobacco Products
- V — Rubber Products
- VI — Leather Products
- VII — Textile Mills
- VIII — Knitting Mills
- IX — Clothing.
- X — Wood and Paper Products
- XI — Printing Trades
- XII — Iron and Steel Products
- XIII — Transportation Equipment
- XIV — Non-ferrous Metal Products
- XV — Electrical Apparatus and Supplies
- XVI — Non-metallic Mineral Products
- XVII — Products of Petroleum and Coal
- XVIII — Chemicals and Allied Products
- XIX — Miscellaneous Manufactures



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The present report belongs in Part XVIII, Chemicals and Allied Products. It is punched to permit of filing in a ring binder along with others of the group. The reports in this group are:

- A — General Review, 25¢
- B — The Acids, Alkalies and Salts Industry, 25¢
- C — The Fertilizers Industry, 25¢
- D — The Fertilizer Trade in Canada, 25¢
- E — The Medicinal and Pharmaceutical Preparations Industry, 25¢
- F — The Paints, Varnishes and Lacquers Industry, 25¢
- G — The Primary Plastics Industry, 25¢
- H — The Soaps, Washing Compounds and Cleaning Preparations Industry, 25¢
- I — The Toilet Preparations Industry, 25¢
- J — The Vegetable Oils Industry, 25¢
- K — The Inks Industry, 25¢
- L — The Adhesives Industry, 25¢
- M — The Polishes and Dressings Industry, 25¢
- N — The Compressed Gases Industry, 25¢
- O — The Coal Tar Distillation Industry, 25¢
- P — The Miscellaneous Chemical Products Industry, 25¢

THE ADHESIVES INDUSTRY

1956

This report on the Adhesives Industry in Canada covers the operations of all factories which made glue, mucilage, paste or special adhesives cements as their chief products. In 1956 there were 29 establishments in this group, 15 being located in Ontario, 10 in Quebec, 3 in British Columbia and 1 in Manitoba.

Factory shipments by firms in the Adhesives Industry were valued at \$12,329,512 in 1956, an increase of 13 per cent over the \$10,908,938 reported in 1955. The number of employees increased from 576 to 611, with a corresponding increase in salaries and wages from \$1,934,597 in 1955 to \$2,152,918 in 1956. The cost of fuel and electricity at \$412,238 was up over the \$369,578 reported in 1955 and the value of materials used directly in manufacturing processes was 7.8 per cent higher at \$5,423,688.

Output of adhesives during 1956, including small amounts from other industries, was as follows: linoleum cement, 15,755,000 pounds at \$1,260,000; rubber cement, 1,310,000 gallons at \$2,675,000;

bone and hide glue, 9,240,000 pounds at \$2,262,000; casein glue, 688,000 pounds at \$200,000; flexible glue, 2,716,000 pounds at \$631,000; synthetic resin glue, 37,666,000 pounds at \$5,149,000; vegetable glues, 23,227,000 pounds at \$2,498,000; mucilage and paste valued at \$650,000; fish glue valued at \$310,000 and miscellaneous adhesives at \$1,131,000. The total value of all adhesives, including mucilage and paste, was \$17,392,000 in 1956 compared with \$15,208,000 in 1955 and \$13,409,000 in 1954.

Note: Figures for value added by manufacture, shown in Table 1, prior to 1952 were obtained by subtracting the cost of materials used, including fuel and electricity, from the value of production. In 1952 the gross value of production was replaced by value of factory shipments, f.o.b. plant. As no information on inventory change is available for 1952 and 1953, value added figures for these years were obtained by subtracting from the value of shipments the cost of materials, fuel and electricity. In 1954 and later years information on the value of year-end inventory holdings at plant and plant warehouses was collected as part of the annual Census of Industry and information thus made available was taken into account in calculating the value added figures.

TABLE 1. Principal Statistics of the Adhesives Industry, Significant Years 1929-1956, and by Provinces, 1955 and 1956

Year and province	Estab-	Em-	Salaries	Cost of	Cost of	Value	Gross
	lish-		wages	fuel and	materials	added by	selling
	No.	No.	\$	\$	\$	\$	\$
1929.....	13	267	321,296	68,157	962,940	799,547	1,830,644
1932.....	14	229	263,142	53,300	457,146	576,769	1,087,215
1937.....	18	416	483,819	116,842	901,194	886,101	1,904,137
1939.....	19	427	520,662	89,573	905,411	1,115,822	2,110,806
1943.....	22	651	1,091,721	211,889	3,037,649	2,486,613	5,736,151
1946.....	22	674	1,223,032	222,384	3,749,579	2,812,350	6,784,313
1949.....	25	749	1,727,848	339,839	4,218,359	3,266,366	7,824,564
1952.....	30	706	2,128,897	367,382	6,106,121	4,365,376	10,838,879
1953.....	29	707	2,144,997	403,118	6,490,797	5,188,200	12,082,115
1954.....	28	621	1,987,142	367,922	6,213,522	5,946,176	12,772,801
1955							
Quebec	10	134	369,186	50,734	1,480,297	1,130,913	2,760,042
Ontario	15	429	1,526,122	315,751	3,396,668	3,934,864	7,704,657
British Columbia	3	}	39,289	3,093	753,893	302,486	444,239
Manitoba	1						
Canada	29	576	1,934,597	369,578	5,030,858	5,368,263	10,908,938
1956							
Quebec	10	133	441,293	43,947	1,570,023	1,531,944	3,109,967
Ontario	15	463	1,665,659	365,400	3,691,104	4,615,101	8,736,178
British Columbia	3	}	45,966	2,891	162,561	309,485	483,367
Manitoba	1						
Canada	29	611	2,132,918	412,238	5,423,688	6,456,530	12,329,512

Note. Profits or losses cannot be calculated from the above figures as data are not available for general expense items, such as interest, rent, depreciation, taxes, insurance, advertising, etc.

1. See footnote to Text.

CHEMICALS AND ALLIED PRODUCTS

TABLE 2. Inventories¹, 1956

	Raw materials and supplies	Goods in process	Finished goods of own manufacture	Total
	\$	\$	\$	\$
Opening:				
Quebec	215,331	8,863	110,863	335,057
Ontario	611,118	75,676	981,369	1,668,163
Other provinces	39,916	—	32,327	72,243
Canada	866,365	84,539	1,124,559	2,075,463
Closing:				
Quebec	259,754	2,794	152,379	415,427
Ontario	718,092	79,460	913,012	1,710,564
Other provinces	37,249	—	23,897	61,146
Canada	1,015,095	82,254	1,089,788	2,187,137

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

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

(c) The opening inventory for 1956 does not necessarily agree with the closing inventory for 1955, because of the addition of new plants, the transfer of plants to other industries and plants going out of business, etc. However, the value added figures for the previous year have not been recalculated to allow for the changes mentioned above.

TABLE 3. Products Made in the Adhesives Industry, 1955 and 1956

Product	1955		1956	
	Quantity	Value of factory shipments	Quantity	Value of factory shipments
	\$			\$
Cement:				
Linoleum..... lb.	9,211,380	459,993 ²	9,638,580	467,802
Other (rubber, etc.) .. gal.	571,600	488,391	663,044	684,813
Glue:				
Bone and hide .. lb.	8,847,746	2,173,614	9,239,593	2,261,877
Casein..... lb.	392,976	112,763	302,231	79,973
Flexible	2,383,193	583,759	2,716,358	630,861
Synthetic resin..... lb.	7,525,815	1,672,376	9,453,819	2,237,016
Vegetable:				
Dry..... lb.	2,433,260	306,184	2,859,341	353,641
Liquid	18,638,962	2,147,512	20,367,789	2,144,228
Other	—	419,268	—	555,255
Mucilage and paste	lb.	4,678,728	532,078	4,598,257
All other products ¹		—	2,013,000	—
Total		—	10,908,938	—
				12,329,512

1. Includes sealing wax, grease, tallow, tankage, blended starches, dextrines, steamed bone and other such products which were reported by only one or two firms in this industry.

2. Revised.

TABLE 4. Materials Used in the Adhesives Industry, 1955 and 1956

Material	1955		1956		
	Quantity	Cost at works	Quantity	Cost at works	
		\$		\$	
Acid, hydrochloric (muriatic)	lb.	12,350	548	9,936	453
Acid, sulphuric (as 100%)	lb.	329,260	4,679	715,890	9,940
Alcohol, ethyl, denatured or not (including tax) .. Imp. gal.		21,962	21,469	39,862	37,860
Alcohol, isopropyl	lb.	111,001	9,035	5,371	565
Alcohol, methyl	Imp. gal.	20,409	17,671	10,141	6,427
Bones	tons	12,273	360,665	14,185	457,866
Borax	lb.	827,395	34,898	906,304	38,448
Hides and hide trimmings	tons	14,857	240,056	15,159	193,568
Casein	lb.	290,356	63,855	385,172	91,216
China-clay	lb.	4,597,209	54,687	4,374,903	61,401
Dextrine	lb.	9,070,195	820,661	8,650,918	760,129
Flour:					
Potato	lb.	306,601	22,740	316,765	25,145
Soyabean	"	170	13	6,464	502
Tapioca	"	629,970	61,202	806,231	74,311
Wheat	"	4,667,412	184,289	3,865,770	151,543
Other	"	87,870	8,375	52,740	3,525
Formaldehyde	"	92,390	10,149	103,708	10,242
Glucose	"	667,948	49,134	689,386	50,692
Glue:					
Bone and hide	"	886,225	235,512	956,640	234,104
Fish	"	964,170	179,808	653,397	137,970
Glycerine	"	91,024	31,290	153,359	48,315
Gums and resins, natural:					
Arabic	lb.	160,932	33,955	285,793	69,867
Other	"	147,032	27,292		
Lignin liquor	Imp. gal.	454,903	54,734	464,576	59,667
Lime	tons	208	3,653	424	7,088
Phenol	lb.	12,006	2,396	9,485	2,537
Resins, synthetic	"	2,243,041	475,562	3,381,280	600,479
Rubber or latex	"	563,946	186,466	878,476	265,882
Sodium carbonate (soda ash)	"	61,034	1,915	66,884	2,309
Sodium fluoride	"	27,529	3,657	40,779	5,218
Sodium hydroxide (caustic soda)	"	164,828	8,771	145,327	7,992
Solvents (benzol, naphtha, etc.)	Imp. gal.	169,562	103,810	198,973	116,307
Starch, corn	lb.	1,426,454	116,367	2,067,492	155,085
Sulphur	"	58,505	747	82,750	1,474
Tallow and fat	"	86,807	9,775	79,260	8,252
Urea, crystal	"	391,143	35,552	348,926	37,113
Whiting	"	324,440	8,304	247,692	7,559
Zinc sulphate	"	81,117	4,285	94,105	5,793
Containers and packing materials	—	—	684,571	—	687,491
All other materials	—	—	858,310	—	989,353
Total	—	—	5,030,858	—	5,423,688

TABLE 5. Factory Shipments of Adhesives, From All Industries, 1955 and 1956

Item	1955		1956		
	Quantity	Value of factory shipments	Quantity	Value of factory shipments	
		\$		\$	
Cement:					
Linoleum	lb.	15,402,000	1,108,000 ¹	15,755,000	1,260,000
Rubber	gal.	1,061,000	2,185,000	1,310,000	2,675,000
Other	—	—	130,000	—	71,000
Glue:					
Bone and hide	lb.	8,848,000	2,174,000	9,240,000	2,262,000
Casein	lb.	792,000	230,000	688,000	200,000
Flexible	lb.	2,383,000	584,000	2,716,000	631,000
Fish	—	—	316,000	836,000	310,000
Synthetic resin	lb.	31,493,000	4,083,000	37,666,000	5,149,000
Vegetable:					
Dry	lb.	2,881,000	382,000	2,859,000	354,000
Liquid	lb.	19,081,000	2,207,000	20,368,000	2,144,000
Other	—	—	419,000 ¹	—	555,000
Mucilage and paste	—	—	651,000	—	650,000
Adhesives, other	—	—	719,000	—	1,131,000
Total	—	—	15,208,000¹	—	17,392,000

1. Revised.

TABLE 6. Principal Statistics of the Adhesives Industry, Classified According to Type of Ownership, 1955 and 1956

Type	Establishments	Employees	Salaries and wages	Cost at plant of materials used	Selling value of factory shipments
	No.	No.	\$	\$	\$
1955					
Individual ownership	2	13	29,515	66,729	139,373
Partnerships	3	563	1,905,082	4,964,129	10,769,565
Incorporated companies	24	576	1,934,597	5,030,858	10,908,938
Total	29				
1956					
Individual ownership	3	10	28,845	65,799	142,194
Partnerships	1	601	2,124,073	5,357,889	12,187,318
Incorporated companies	25	611	2,152,918	5,423,688	12,329,512
Total	29				

TABLE 7. Principal Statistics of the Adhesives Industry in Canada, Grouped According to Size of Establishment, 1955 and 1956

Establishments reporting value of factory shipments	Establishments	Employees	Salaries and wages	Cost at plant of materials used	Selling value of factory shipments
	No.	No.	\$	\$	\$
1955					
Under \$10,000	3	4	5,000	4,045	9,857
\$10,000 to \$24,999	2	10	24,500	31,645	79,022
\$25,000 to \$49,999	1				
\$50,000 to \$99,999	3	10	25,198	90,616	209,426
\$100,000 to \$199,999	5	28	86,303	402,854	540,785
\$200,000 to \$499,999	6	67	198,485	877,364	1,918,478
\$500,000 to \$999,999	6	248	927,964	2,080,164	4,307,236
\$1,000,000 to \$4,999,999	3	209	667,147	1,544,170	3,844,134
Total	29	576	1,934,597	5,030,858	10,908,938
1956					
Under \$10,000	2	8	17,035	14,836	45,059
\$10,000 to \$24,999	2				
\$25,000 to \$49,999	2	13	35,707	81,344	215,267
\$50,000 to \$99,999	2				
\$100,000 to \$199,999	5	27	111,589	419,111	703,797
\$200,000 to \$499,999	7	86	268,646	1,071,930	2,093,342
\$500,000 to \$999,999	6	256	1,027,670	2,173,827	5,063,386
\$1,000,000 to \$4,999,999	3	221	692,271	1,662,640	4,208,661
Total	29	611	2,152,918	5,423,688	12,329,512

TABLE 8. Capital and Repair Expenditures in the Adhesives Industry, 1951-1956

Year	Total capital and repair expenditures	Year		Total capital and repair expenditures
		\$'000	\$'000	
1951	763	1954		598
1952	789	1955		445
1953	578	1956 ¹		869

1. Preliminary.

TABLE 9. Employees and Their Earnings in the Adhesives Industry, 1955 and 1956

Province	Number of employees				Earnings			
	Supervisory and office		Production workers		Total	Supervisory and office	Production workers	
	Male	Female	Male	Female			Total	
1955								
Quebec	34	30	68	2	134	189,407	179,779	369,186
Ontario	101	50	253	25	429	655,420	870,702	1,526,122
Manitoba and British Columbia	4	2	7	—	13	19,131	20,158	39,289
Canada	139	82	328	27	576	863,958	1,070,639	1,934,597
1956								
Quebec	29	33	68	3	133	204,737	236,556	441,293
Ontario	100	52	283	28	463	646,697	1,018,962	1,665,659
Manitoba and British Columbia	5	2	8	—	15	21,121	24,845	45,966
Canada	134	87	359	31	611	872,555	1,280,363	2,152,918

TABLE 10. Production Workers in the Adhesives Industry, by Months, 1955 and 1956

Month	1955			1956		
	Male	Female	Total	Male	Female	Total
Number						
January	309	25	334	354	31	385
February	313	25	338	351	31	382
March	318	32	350	349	34	383
April	322	31	353	356	41	397
May	327	31	358	354	36	390
June	331	28	359	349	34	383
July	334	25	359	351	33	384
August	334	27	361	361	31	392
September	337	24	361	366	26	392
October	335	30	365	362	29	391
November	341	24	365	385	26	411
December	341	24	365	382	25	407
Average	328	27	355	359	31	390

TABLE 11. Imports of Adhesives, 1955 and 1956

Item	1955		1956	
	Pounds	\$	Pounds	\$
Glue:				
Animal	2,162,609	352,967	2,621,056	463,145
Synthetic resin	1,487,315	483,326	1,836,294	569,835
Vegetable	30,488	4,287	40,055	6,426
Other	103,120	43,453	248,809	83,601
Mucilage and adhesive paste	324,277	74,386	323,983	83,524
Rubber cement	—	1,308,914	—	1,263,408

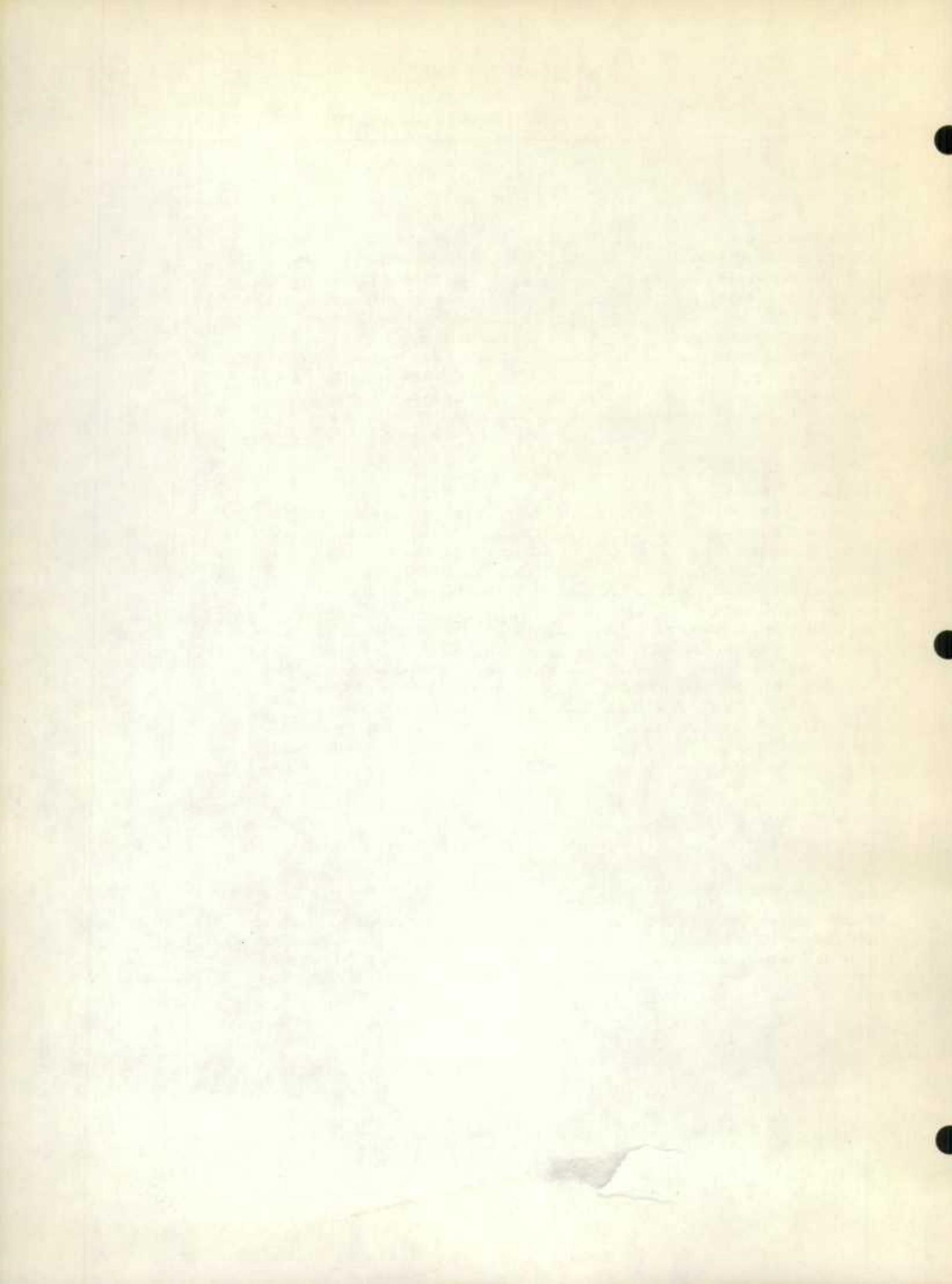
TABLE 12. Fuel and Electricity Used in the Adhesives Industry, 1956¹

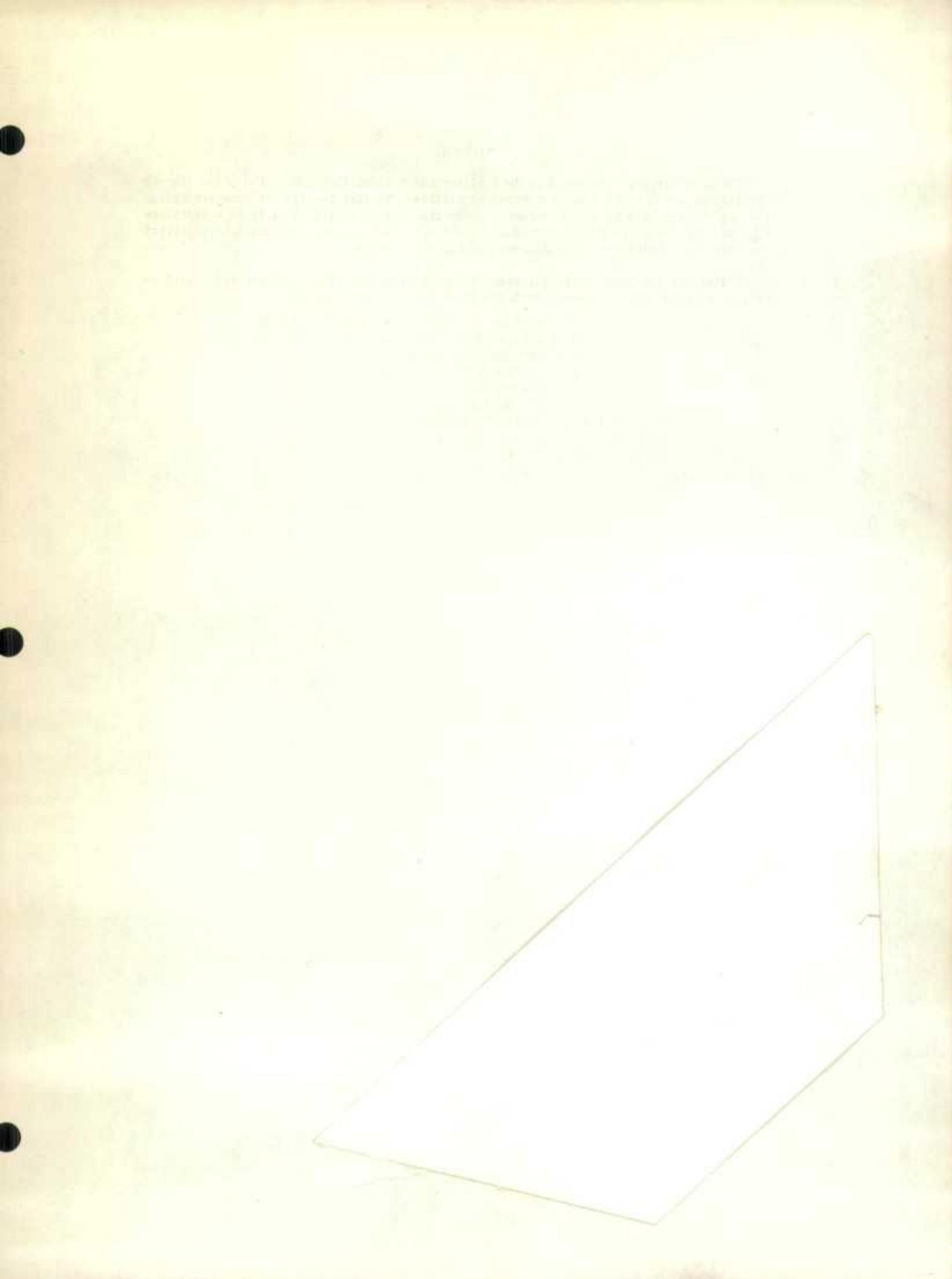
Kind		Quantity	Cost at works
			\$
Bituminous coal:			
(a) From Canadian mines	ton	7,779	81,712
(b) Imported	"	17,328	185,146
Coke	"	23	545
Gasoline (including gasoline used in cars and trucks)	imp. gal.	85,290	29,891
Fuel oil	" "	362,849	48,480
Wood	cord	20	454
Manufactured gas	1,000 cu. ft.	1,679	1,986
Other fuel	—	—	11,241
Electricity	k.w.h.	4,466,830	52,783
Total	—	—	412,238
Electricity generated for own use	k.w.h.	1,440,000	—

¹. Last collected in this detail in 1953.

List of Firms in the Adhesives Industry, 1956

Name	Address
Quebec:	
Arol Chemical Co. Ltd.	2115 Old Orchard, Montreal
B.B. Chemical Co. of Canada	2610 Bennett Ave., Montreal
Canadian Adhesives Ltd.	420 Marier Ave., Montreal
Dominion Flour Paste Co., The	2619 Charlemagne, Montreal
Dural Products Ltd.	41 Dollard Ave., Dorval
General Adhesives	St. Janvier
Industrial Adhesives Ltd.	121 Bois Franc Rd., Ville St. Laurent
National Adhesives (Canada) Limited	2125 Remembrance Road, Lachine
Swift Canadian Co. Ltd.	215 Maguire St., Montreal
Wolverine Products & Sales Limited	1501 Bercy St., Montreal
Ontario:	
Allen-Stevenson Products Ltd.	916 Erie E., Windsor
Canada Glue Co. Limited	Mohawk Road, Brantford
Continental Chemical Company	8 Bansley Ave., Toronto
Deplex Adhesives Ltd.	120 Atlantic Ave., Toronto
Harris, W., & Co. Limited	200 Keating St., Toronto
Industrial Adhesives Ltd.	90 Tycos Drive, Toronto
Le Page's Inc.	404 Kipling Ave., Toronto
Machon Sealing Wax Company, The	678 Parliament St., Toronto
McCormick & Co. (Canada) Limited	18 Holly St. W., Toronto
National Adhesives (Canada) Limited	363-379 Wallace Ave., Toronto
Perkins Glue Company of Canada, Limited	629 Queen St. S., Kitchener
Stadex-Pirie Ltd.	119 Water St., Brockville
Stein-Hall Limited	1130 Dupont St., Toronto
Swift Canadian Co. Ltd.	1960 St. Clair Ave. W., Toronto
Wolverine Cement Company Limited	200 Grand River Ave., Brantford
Manitoba:	
Swift Canadian Co. Ltd.	Archibald St., St. Boniface
British Columbia:	
McKenzie Linoleum Cement Co. Ltd.	505 East Georgia St., Vancouver
Swift Canadian Co. Ltd.	Brunette St., New Westminster
Universal Enterprises Ltd.	236 Esplanade E., N. Vancouver





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