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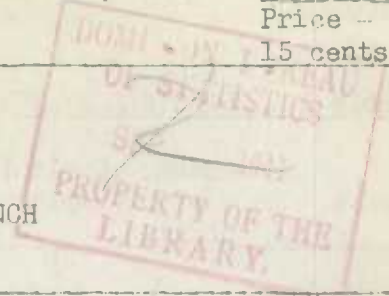
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ANNUAL INDUSTRY REPORT

CHEMICALS AND ALLIED PRODUCTS GROUP

THE ADHESIVES INDUSTRY - 1940

This report on the Adhesives Industry in Canada covers the operations of all factories which made glue, mucilage, paste or special cements as their chief products. In 1940 there were 21 establishments in this group, 11 being located in Ontario, 7 in Quebec, 2 in British Columbia and 1 in Nova Scotia.

Production and employment in this industry rose abruptly during 1940 compared with 1939. The value of production advanced 32.1 per cent to \$2,789,389; the number of employees, 16.4 per cent to 497, and total salaries and wages 19.4 per cent to \$621,451. The cost of fuel and electricity at \$146,661 was greater by 63.7 per cent than in 1939, and the value of materials used directly in manufacturing processes was 23.7 per cent higher at \$1,120,288.

The quantity of bone and hide glue made amounted to 2,982 tons worth \$946,820 against 2,258 tons at \$672,193 in 1939. Output of other glues advanced in value to \$836,940 from \$825,811 and the value of mucilage and paste increased to \$369,837 from \$144,808. Mucilage and paste were also made by concerns in other industries, particularly by ink manufacturers, and the total production from all sources amounted to \$433,689 in 1940 and to \$231,813 in 1939.

Imports of adhesives into Canada during 1940 were as follows: 93 tons of vegetable glue at \$8,792; 571 tons of animal glue at \$124,859; 53 tons of liquid glue at \$29,834 and 230 tons of mucilage and paste at \$46,644.

Exports of glue amounted to 226 tons at \$54,042, and exports of glue stock totalled 1,854 tons appraised at \$37,183.

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Table 1 - PRINCIPAL STATISTICS OF THE ADHESIVES INDUSTRY, 1929 - 1940

Years	Number of plants	Capital employed \$	Average number of employees	Salaries and wages \$	Cost of fuel and electricity at works \$	Cost of materials at works \$	Gross selling value of products at works \$
1929	13	1,850,273	267	321,296	68,157	962,940	1,830,644
1930	12	1,921,406	226	286,825	64,380	882,908	1,650,634
1931	13	2,850,507	297	375,598	75,149	877,802	1,742,553
1932	14	2,501,171	229	263,142	53,300	457,146	1,087,215
1933	16	2,271,071	283	314,005	78,712	463,199	1,141,761
1934	16	2,123,205	332	366,008	77,198	587,535	1,307,393
1935	17	2,066,754	389	423,513	114,604	550,700	1,436,259
1936	19	2,266,199	420	457,170	123,865	813,291	1,799,200
1937	18	2,357,662	416	483,819	116,842	901,194	1,904,137
1938	19	2,580,263	415	496,950	115,972	851,529	1,904,258
1939	19	2,733,476	427	520,662	89,573	905,411	2,110,806
1940	21	2,742,463	497	621,451	146,661	1,120,288	2,789,389
Per cent change— 1940 from 1939 ....	..	+0.3	+16.4	+19.4	+63.7	+23.7	+32.1

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

Table 2 - PRINCIPAL STATISTICS, BY PROVINCES, 1939 and 1940

Years	Number of plants	Capital employed \$	Average number of employees	Salaries and wages \$	Cost of fuel and electricity at works \$	Cost of materials at works \$	Gross selling value of products at works \$
1939							
Quebec	7)						
British Columbia	2)	721,888	142	150,915	30,884	374,977	800,380
Ontario	10	2,011,588	285	369,747	58,689	530,434	1,310,426
CANADA	19	2,733,476	427	520,662	89,573	905,411	2,110,806
1940							
Quebec	7	592,742	132	150,508	35,936	383,601	842,271
Ontario	11	1,986,489	338	431,462	108,583	632,478	1,771,746
Nova Scotia	1)						
British Columbia	2)	163,232	27	39,481	2,142	104,209	175,372
CANADA	21	2,742,463	497	621,451	146,661	1,120,288	2,789,389

Table 3 - CAPITAL EMPLOYED, BY PROVINCES, 1939 and 1940

Provinces	Present value	Inventory value of	Operating	TOTAL
	of lands, build- ings, machinery and equipment	materials, finished products, fuel and other supplies on hand, and stocks in process	capital (cash, bills and accounts re- ceivable	CAPITAL EMPLOYED
	\$	\$	\$	\$
<u>1939</u>				
Quebec	334,219	210,099	177,570	721,888
British Columbia)				
Ontario	1,001,574	516,805	493,209	2,011,588
CANADA	1,335,793	726,904	670,779	2,733,476
<u>1940</u>				
Quebec	270,517	186,660	135,565	592,742
Ontario	902,170	583,386	500,933	1,986,489
Other provinces.	39,946	95,743	27,543	163,232
CANADA	1,212,633	865,789	664,041	2,742,463

Table 4 - EMPLOYEES, SALARIES AND WAGES, 1939 and 1940

Provinces	AVERAGE NUMBER OF EMPLOYEES					Salaries	Wages	TOTAL SALARIES and WAGES
	On Salaries		On Wages		TOTAL			
	Male	Female	Male	Female				
					\$	\$	\$	
<u>1939</u>								
Quebec	36	6	89	11	142	60,123	90,792	150,915
British Columbia)								
Ontario	47	16	218	4	285	143,829	225,918	369,747
CANADA	83	22	307	15	427	203,952	316,710	520,662
<u>1940</u>								
Quebec	26	9	89	8	132	64,948	85,560	150,508
Ontario	47	17	267	7	338	132,989	298,473	431,462
Other provinces.	12	3	12	..	27	26,531	12,950	39,481
CANADA	85	29	368	15	497	224,468	396,983	621,451

Table 5 - WAGE-EARNERS, BY MONTHS, 1939 and 1940 (On the last work day of each month)

Months	1939			1940		
	Male	Female	TOTAL	Male	Female	TOTAL
January	310	14	324	366	11	377
February	309	15	324	363	11	374
March	315	15	330	367	12	379
April	328	15	343	371	22	393
May	324	17	341	367	13	380
June	308	15	323	355	13	368
July	263	14	277	348	12	360
August	278	14	292	361	18	379
September	281	14	295	368	18	386
October	288	16	304	375	17	392
November	340	16	356	392	18	410
December	350	15	365	390	14	404
AVERAGE	307	15	322	368	15	383

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Table 6 - REGULAR HOURS WORKED PER WEEK BY WAGE-EARNERS, 1940 (In one week of normal employment; overtime not included)

Regular hours worked per week	Number of wage-earners	Per cent of wage-earners	Regular hours worked per week	Number of wage-earners	Per cent of wage-earners
30 hours or less	15	3.6	55 hours	18	4.5
31 - 43 hours ..	5	1.2	56 - 64 hours ...	40	9.6
44 hours	34	8.2	65 hours and over	22	5.3
45 - 47 hours ..	54	13.0	Total	415	100.0
48 hours	77	18.6	Total wages paid		
49 - 50 hours ..	6	1.5	in selected week		\$ 8,365
51 - 54 hours ..	144	34.7			

Table 7 - FUEL AND ELECTRICITY USED, 1939 and 1940

Kinds	Unit of measure	1 9 3 9		1 9 4 0	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Anthracite coal	short tons	4	49	404	2,661
Bituminous coal - Canadian	short tons	2,426	14,969	3,699	21,697
Foreign.	short tons	7,103	40,924	14,907	85,111
Coke	short tons	67	604	103	1,038
Gasoline	Imp. gal.	753	182	15,816	3,215
Fuel oil	Imp. gal.	281,901	12,065	265,409	13,666
Wood	cords	7	54	10	93
Gas - Manufactured	M cu. ft.	284	263	336	323
Electricity purchased	K. W. H.	1,331,201	20,463	1,422,841	18,857
TOTAL .....	\$	...	89,573	...	146,661
Electricity generated for own use	K. W. H.	...	...	558,000	...

Table 8 - POWER EQUIPMENT, 1939 and 1940

	Ordinarily in use		In reserve or idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
<u>1 9 3 9</u>				
Steam engines and steam turbines..	7	528	1	180
Hydraulic turbines and waterwheels	1	35	...	...
Electric motors run by purchased power	182	1,597	6	211
TOTAL	190	2,160	7	391
Stationary boilers	14	1,236	1	80
<u>1 9 4 0</u>				
Steam engines and steam turbines..	10	837	1	15
Diesel engines	1	10	...	...
Electric motors run by purchased power	178	1,483	4	6
TOTAL	189	2,330	5	21
Electric motors run by power generated in establishment	19	258	5	61
Stationary boilers	18	2,156	...	...

Table 9 - MATERIALS USED IN MANUFACTURING, 1939 and 1940

Materials	Unit of measure	1 9 3 9		1 9 4 0	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bones	ton	6,193	68,373	9,566	109,572
Hides and hide trimmings	ton	14,736	211,975	19,233	225,708
Casein	lb.	175,193	15,533	292,752	38,190
Dextrine	lb.	2,848,194	133,904	3,174,102	172,306
Flour, tapioca	lb.	321,847	16,394	378,313	18,023
Flour, soya bean	lb.	1,440,000	37,993	2,154,739	66,649
Flour, other	lb.	2,380,344	47,466	2,514,267	50,978
Glycerine	lb.	145,359	20,152	141,512	19,830
Gums	lb.	105,019	15,849	124,251	14,557
Lime	ton	612	6,817	1,102	13,887
Resin	lb.	62,567	3,422	88,896	5,556
Rubber	lb.	75,902	15,979	96,237	24,370
Solvents (benzol, naphtha, etc.)	gal.	74,468	12,825	85,841	21,389
Starch	lb.	500,688	19,696	474,410	19,715
Sulphur	lb.	131,900	1,904	140,893	2,429
Sulphuric acid, 66° Be	lb.	625,105	5,911	1,082,474	10,156
Tallow and fat	lb.	2,578,877	28,006	694,905	11,481
Containers and packing materials	...	...	69,662	...	67,951
All other materials .....	...	...	173,550	...	227,541
TOTAL			905,411		1,120,288

Table 10 - PRODUCTS MADE, 1939 and 1940

Products	Unit of measure	1 9 3 9		1 9 4 0	
		Quantity	Selling value at works	Quantity	Selling value at works
			\$		\$
Bone and hide glue	lb.	4,515,629	672,193	5,964,845	946,840
Vegetable glue, dry and liquid	lb.	9,918,525	597,188	8,614,383	528,392
Other glues (casein, soya bean, fish, flexible, etc.) .....	...	...	228,623	...	308,548
Grease	lb.	3,470,424	113,057	1,056,877	36,189
Mucilage and paste (xx) .....	...	...	144,808	...	369,837
All other products (x) .....	...	...	354,937	...	599,583
TOTAL	\$		2,110,806		2,789,389

(xx) In addition to the output here reported, there was some mucilage and paste made in other industries. The total output of mucilage and paste from all industries was about \$433,689 in 1940 compared with \$231,813 in 1939.

(x) Includes sealing wax, mixed fertilizers, buttermilk powder, rubber and linoleum cements, poultry food, fox food, raw bone, steamed bone, and other such products which were reported by only one or two firms in this industry.

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Table 11 - IMPORTS INTO CANADA AND EXPORTS OF GLUE, MUCILAGE AND PASTE, 1939 - 1940

	1939		1940	
	Quantity lb.	Value \$	Quantity lb.	Value \$
(a) <u>IMPORTS</u>				
Glue, vegetable	1,337,544	47,937	185,488	8,792
Glue, animal or powdered sheet	1,491,104	143,607	1,142,222	124,859
Glue, liquid	123,008	28,355	105,543	29,834
Mucilage and adhesive paste	371,457	37,926	459,349	46,644
(b) <u>EXPORTS</u>				
Glue	465,800	57,113	451,800	54,042
Glue stock	6,754,200	35,726	3,708,300	37,183

DIRECTORY OF FIRMS IN THE ADHESIVES INDUSTRY, 1940

NOTE: The Adhesives Industry includes only the concerns which made adhesives as their main products. Some concerns in other industrial groups made paste, mucilage, etc., as minor products but these works are not listed in this directory.

Name of Firm and Location of Plant	Main Products, 1940
B. & B. Chemical Co. of Canada, Limited 1505 Cabot St., Cote St. Paul, Montreal, P.Q.	Rubber cement; coated duck.
Bulldog Grip Cement Co. Inc., 2101 Bennett Ave., Montreal, P.Q.	Casein; casein glue; buttermilk powder; dry and liquid paste; dry vegetable glue.
Butterworth, A. & Son, Butterworth Ave., Scarboro, Ont.	Nitro cellulose cement and solvent.
Canada Glue Co. Ltd., Mohawk Road, Brantford, Ont.	Bone and hide glue; grease; steamed bone; raw bone meal.
Cape Sable Sea Products Ltd. Stoney Island, N.S.	Fish glue.
Dominion Flour Paste Co., 2135 Maisonneuve St., Montreal, P.Q.	Size and liquid glue and paste.
Gypsum, Lime & Alabastine, Canada, Ltd., 1 Strange St., Kitchener, Ont.	Hide glue; grease.
Harris, W., & Co. Limited, 200 Keating St., Toronto 2, Ont.	Bone and hide glue; fox food, poultry food, hides; tallow; fertilizers.
Hasco Products Limited, 131 .. 8th St., New Westminster, B.C.	Marine glue.
Hercules Laux-Merritt Co. Ltd., Stanbridge, P.Q.	Casein glue; soya bean glue, synthetic resin glue.

DIRECTORY OF FIRMS IN THE ADHESIVES INDUSTRY, 1940
(Concluded)

Name of Firm and Location of Plant	Main Products, 1940
Laucks, I. F., Ltd., Granville Island, Vancouver, B.C.	Casein and dry vegetable glues; liquid paste; blood glue.
LePage's, Inc., 1910 St. Antoine St., Montreal, P.Q.	Fish glue and mucilage.
Machon Sealing Wax Co., 678 Parliament St., Toronto, Ont.	Sealing wax.
Marquis, F. Canada, Reg'd., 3 Courcellette St., Quebec, P.Q.	Bone and hide glue; grease and tallow; fertilizers.
Meredith, Simmons & Co. Ltd., Cote St. Paul, Montreal, P.Q. and 371 Wallace Ave., Toronto, Ont.	Dry and liquid vegetable glue; dry and liquid paste; bone and hide glue; casein glue; flexible glue; animal glue mixtures; size.
Reanite Corp. Ltd., Hilton Ave., Eastview, Ont.	Rubber cement; latexed goods; paints.
Stein-Hall Limited, 250 Van Horne St., Toronto, Ont.	Liquid vegetable glue; blended starches and dextrans; flexible hide glue.
Stuart & Foster Ltd., 361 King St. E., Toronto, Ont.	Dry and liquid vegetable glue; dry paste; binders; casein glue; mucilage; size.
Toronto Adhesive Co., 27 Jarvis St., Toronto, Ont.	Liquid paste; flexible glue; laminated board.
Wolverine Cement Co., Grand River Ave., Brantford, Ont.	Linoleum cements.



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