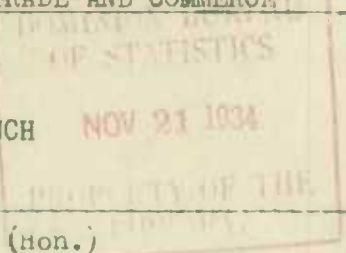


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DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
MINING, METALLURGICAL AND CHEMICAL BRANCH
OTTAWA - CANADA



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CHEMICALS AND ALLIED PRODUCTSTHE ADHESIVES INDUSTRY, 1933.

Production from the 16 factories in Canada which made adhesives as their chief products in 1933 was valued at \$1,141,761 compared with \$1,087,215 from the 14 establishments in this group in 1932. Capital employed was reported at \$2,271,071, the average number of workers was 283 and the cost of materials used in manufacturing was \$463,199.

Eight plants were in Ontario and 8 in Quebec. Output of animal glue totalled 1,181 tons at \$302,013 compared with 1,215 tons at \$361,201 in 1932, and other glues were valued at \$350,848 as against \$382,931 in the previous year. Bone and hide glues were reported by 5 firms in 1933, vegetable glues by 3 companies, fish glue by 1 concern and casein glue by 2 companies. Rubber cement, mucilage, paste, size, sealing wax, linoleum cement and glue factory by-products made up the remainder of the production.

Imports of glue into Canada were as follows in 1933: vegetable glue, 837,106 pounds at \$34,578; animal glue, 1,337,943 pounds at \$97,783; liquid glue, 153,197 pounds at \$30,653; mucilage and adhesive paste, 159,513 pounds at \$22,144. Exports of glue were reported at 57,500 pounds valued at \$6,821.

Table 1 - PRINCIPAL STATISTICS OF THE ADHESIVES INDUSTRY IN CANADA, BY PROVINCES, 1929 - 1933.

Years	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$
1929	13	1,850,273	267	321,296	962,940	1,830,644	867,704
1930	12	1,921,406	226	286,825	882,908	1,650,634	767,726
1931	13	2,850,507	297	375,598	877,802	1,742,553	864,751
1932	14	2,501,171	229	263,142	457,146	1,087,215	630,069
1933 -							
Quebec	8	578,406	89	80,352	138,940	364,722	225,782
Ontario ...	8	1,692,665	194	233,653	324,259	777,039	452,780
CANADA ...	16	2,271,071	283	314,005	463,199	1,141,761	678,562

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Table 2 - CAPITAL EMPLOYED, BY PROVINCES, 1932 and 1933.

Provinces	Present value of lands, buildings and equipment	Inventory value of materials on hand, machinery in process, fuel and other supplies	Inventory value of finished products on hand	Operating capital (cash, bills and accounts receivable, etc.)	TOTAL CAPITAL EMPLOYED
	\$	\$	\$	\$	\$
<u>1932</u>					
Quebec ...	326,963	75,190	13,239	94,393	509,785
Ontario ..	1,166,010	124,653	403,897	296,826	1,991,386
CANADA ..	1,492,973	199,843	417,136	391,219	2,501,171
<u>1933</u>					
Quebec ...	392,892	44,148	26,596	114,770	578,406
Ontario ..	961,618	172,427	353,297	205,323	1,692,665
CANADA ..	1,354,510	216,575	379,893	320,093	2,271,071

Table 3 - SIZE OF ESTABLISHMENTS ACCORDING TO PRODUCTION, NUMBER OF EMPLOYEES AND CAPITAL EMPLOYED, 1933.

	Number of plants	Capital employed	Number of employees	Selling value of products at works
		\$		\$
<u>(a) PRODUCTION</u>				
Under \$10,000	4	17,473	7	14,378
\$10,000 to \$50,000	5	242,083	32	147,502
\$50,001 to \$100,000	3	1,161,448	92	261,524
Over \$100,000	4	850,067	152	718,357
TOTAL	16	2,271,071	283	1,141,761
<u>(b) NUMBER OF EMPLOYEES</u>				
1 or 2	3	10,052	3	6,726
3 to 10	7	397,438	43	363,465
Over 10	6	1,863,581	237	771,570
TOTAL	16	2,271,071	283	1,141,761
<u>(c) CAPITAL EMPLOYED</u>				
Under \$25,000	6	50,327	21	53,545
\$25,000 to \$100,000	4	236,528	28	218,617
Over \$100,000	6	1,984,216	234	869,599
TOTAL	16	2,271,071	283	1,141,761

Table 4 - EMPLOYEES, SALARIES AND WAGES, 1932 and 1933.

Provinces	Average number of employees				TOTAL	Salaries	Wages	TOTAL SALARIES AND WAGES
	On salaries		On wages					
	Male	Female	Male	Female				
<u>1932</u>								
Quebec	13	...	46	4	63	23,683	37,414	61,097
Ontario	21	10	129	6	166	80,069	121,976	202,045
CANADA ...	34	10	175	10	229	103,752	159,390	263,142
<u>1933</u>								
Quebec	22	1	59	7	89	36,926	43,426	80,352
Ontario	25	9	153	7	194	84,769	148,884	233,653
CANADA ...	47	10	212	14	283	121,695	192,310	314,005

Table 5 - WAGE-EARNERS, BY MONTHS, 1932 and 1933. (On 15th or nearest representative date)

Months	1932			1933		
	Male	Female	TOTAL	Male	Female	TOTAL
January	209	10	219	229	12	241
February	205	13	218	237	15	252
March	198	10	208	235	15	250
April	178	10	188	236	15	251
May	156	8	164	235	16	251
June	155	7	162	199	12	211
July	150	12	162	171	14	185
August	152	10	162	157	13	170
September	153	10	163	166	11	177
October	157	8	165	218	13	231
November	163	7	170	227	14	241
December	210	9	219	212	14	226
AVERAGE	175	10	185	212	14	226

Table 6 - TOTAL OF WAGE-EARNERS IN MONTH OF HIGHEST EMPLOYEMENT ACCORDING TO REGULAR HOURS WORKED PER WEEK, 1932 and 1933. (Overtime not included)

Regular hours per week	Number of wage-earners		Regular hours per week	Number of wage-earners	
	1932	1933		1932	1933
40 hours or less	25	7	51 - 53 hours	4	136
41 - 43 hours	5	8	54 hours	104	1
44 hours	17	20	55 hours	6	9
45 - 47 hours .....	...	2	56 - 59 hours .....	...	11
48 hours	20	22	60 hours	31	45
49 - 50 hours	9	17	Over 60 hours	7	15

Table 7 - FUEL AND ELECTRICITY USED, 1932 and 1933.

Kinds	Unit of measure	1932		1933	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Anthracite coal	short tons	111	600	163	943
Bituminous coal - Canadian ..	short tons	801	6,166	2,125	14,590
Foreign ...	short tons	7,038	36,493	7,264	38,883
Coke	short tons	41	396	35	300
Gasoline	Imp. gal.	...	...	20	5
Fuel oil	Imp. gal.	...	...	192,833	9,556
Wood	cords	3	22	6	36
Gas - Manufactured	M cu.ft.	63	60	58	46
Electricity purchased	K.W.H.	486,015	9,563	507,494	14,353
TOTAL	xxx	...	53,300	...	78,712

Table 8 - POWER EQUIPMENT, 1932 and 1933.

	1932		1933	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Steam engines and steam turbines	6	477	7	432
Gasoline, gas and oil engines .....	...	...	1	5
Total Primary Equipment	6	477	8	437
Electric motors run by purchased power.	109	953	108	827
TOTAL	115	1,430	116	1,264
Boilers	17	1,975	19	2,185

Table 9 - MATERIALS USED IN MANUFACTURING, 1932 and 1933.

Materials	Unit of measure	1932		1933	
		Quantity	Cost at works	Quantity	Cost at works
Bones, hides and glue stock	-	...	\$ 125,695	...	\$ 83,487
Dextrine and glucose	lb.	2,049,214	100,953	1,716,654	71,451
Flour, tapioca and other	lb.	1,907,952	21,215	1,378,037	28,651
Glycerine	lb.	6,000	612	31,043	3,105
Gums	lb.	19,927	2,186	13,263	1,249
Lime	ton	313	2,899	245	3,519
Resin	lb.	4,095,124	60,881	4,732,981	73,448
Rubber	lb.	21,435	2,031	24,013	2,395
Shellac	lb.	8,200	1,905	7,400	1,660
Soda ash	lb.	525,400	8,251	528,750	8,556
Solvents (benzol, naphtha, etc.)	gal.	41,273	9,534	42,043	8,934
Starch	lb.	234,964	7,528	566,295	25,466
Sulphur	lb.	97,700	1,669	117,345	1,992
Sulphuric acid, 66° Be.	lb.	127,590	2,417	363,677	5,285
All other materials (x)	xx	...	81,918	...	116,495
Bottles, tops, brushes, boxes, etc.	xx	...	27,452	...	27,506
TOTAL	xx	...	457,146	...	463,199

(x) Includes horses, tallow, miscellaneous chemicals, milk, etc.

Table 10 - PRODUCTS MADE, 1932 and 1933.

Products	1932		1933	
	Quantity	Selling value at works	Quantity	Selling value at works
Bone and hide glue	lb. 2,430,951	\$ 361,201	2,361,599	\$ 302,013
Fish, casein and vegetable glues(xx)	xx	382,931	...	350,848
Mucilage and paste (xx)	xx	52,722	...	101,613
All other products (x)	xx	290,361	...	387,287
TOTAL	xx	1,087,215	...	1,141,761

(xx) In addition to the output here reported there was some fish glue, mucilage and paste made in other industries. The total output of mucilage and paste from all industries was about \$141,613 in 1933 compared with \$87,459 in 1932.

(x) Includes resin size, rubber cement, liquid solder, sealing wax, mixed fertilizers, poultry food, fox food and other such products which were reported by only one or two firms in this industry.

Table 11 - IMPORTS INTO CANADA AND EXPORTS OF GLUE, MUCILAGE AND PASTE, 1932 and 1933.

	1932		1933	
	Quantity lb.	Value \$	Quantity lb.	Value \$
(a) IMPORTS				
Glue, vegetable -				
TOTAL IMPORTS	738,695	35,533	837,106	34,578
From United Kingdom	19,023	2,426	19,754	1,267
United States	746,323	32,294	688,866	28,473
Mucilage and adhesive paste -				
TOTAL IMPORTS	263,059	26,984	159,513	22,144
From United Kingdom	41,003	7,249	33,320	7,894
United States	215,736	18,967	125,448	14,166

Table 11 - IMPORTS INTO CANADA AND EXPORTS OF GLUE, MUCILATE AND PASTE, 1932 and 1933 (concluded)

	1	9	3	2	1	9	3	3
	Quantity		Value		Quantity		Value	
			\$				\$	
(a) <u>IMPORTS</u> - concluded								
Glue, animal, powdered or sheet -								
TOTAL IMPORTS	1,446,734		123,039		1,337,943		97,783	
From United Kingdom	1,026,815		81,619		1,141,532		79,822	
United States	110,883		16,798		59,590		3,860	
Glue, liquid -								
TOTAL IMPORTS	153,646		39,297		153,197		30,653	
From United Kingdom	53,080		13,253		76,832		12,366	
United States	74,675		21,195		69,115		16,714	
(b) <u>EXPORTS</u>								
Glue -								
TOTAL EXPORTS	54,800		9,323		57,500		6,821	
To United Kingdom	35,700		7,228		39,200		4,834	
United States	14,300		1,379		13,000		1,264	
Glue stock -								
TOTAL EXPORTS	2,063,800		12,785		1,500,100		7,285	
To United States	2,063,800		12,785		1,432,000		6,945	

DIRECTORY OF FIRMS IN THE ADHESIVES INDUSTRY, 1933.

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

<u>Name of Firm</u>	<u>Location of Plant</u>	<u>Main Products, 1933.</u>
Auger, F. X.	2 Garagonthier St., St. Malo, P.Q.	Bone and hide glue; grease; tallow and fertilizers.
Boston Blacking Company of Canada, Limited	1450 Cabot St., Cote St. Paul, Montreal, P.Q.	Rubber cement.
Bulldog Grip Cement Co. Inc.	2101 Bennett Ave., Montreal, P.Q.	Casein glue; butter-milk powder.
Canada Glue Co. Limited	Brantford, Ont.	Bone and hide glue; grease; steamed bone; raw bone meal.
Dominion Flour Paste Co., The	2122½ Champlain St., Montreal, P.Q.	Flour paste; size.
Factory Operators Ltd.	Room 601, Shaughnessy Bldg., Montreal, P.Q.	Vegetable glue; bone and hide glue; size.
Gypsum, Lime & Alabastine, Canada, Ltd.	1 Strange St., Kitchener, Ont.	Hide glue; grease



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DIRECTORY OF FIRMS IN THE ADHESIVES INDUSTRY, 1933 (concluded)

<u>Name of Firm</u>	<u>Location of Plant</u>	<u>Main Products, 1933</u>
Harris, W., & Co. Limited	200 Keating St., Toronto, 2, Ont.	Bone and hide glue; grease; tankage; fox food, poultry food; hides.
Hercules Glue Co.	Stanbridge, P.Q.	Casein; casein glue; size.
Machon Sealing Wax Co.	Rear 47 St. James Ave., Toronto, 5, Ont.	Sealing wax.
Marquis, F. Canac, Reg'd.	3 Courcèlette St., Quebec, P.Q.	Bone and hide glue; grease; fertilizers.
Meredith, Simmons & Co. Limited	371 Wallace Ave., Toronto, Ont.	Liquid and dry vegetable glue; liquid and dry paste.
Paper Makers Chemical Corp. Ltd.	Burlington Junction, Ont.	Resin size.
Russia Cement Co.	4105 Richelieu St., Montreal, P.Q.	Fish glue; paste and mucilage; liquid solder.
Stuart & Foster Limited	361 King St. E., Toronto, Ont.	Casein glue; vegetable glue; paste; size.
Wolverine Cement Co.	145 Dalhousie St., Brantford, Ont.	Linoleum cement.
