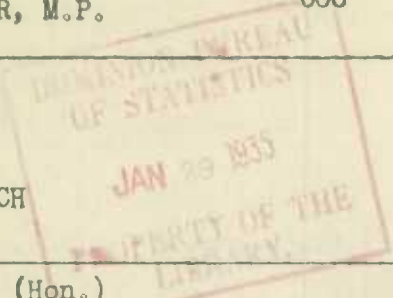


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DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
CENSUS OF INDUSTRY
MINING, METALLURGICAL AND CHEMICAL BRANCH
OTTAWA - CANADA



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CHEMICALS AND ALLIED PRODUCTS

THE ADHESIVES INDUSTRY, 1934.

Production from the 16 factories in Canada which made adhesives as their chief products in 1934 was valued at \$1,307,393 compared with \$1,141,761 in 1933 and \$1,087,215 in 1932. Capital employed was reported at \$2,123,205, the average number of workers was 332, and the cost of materials used in manufacturing was \$587,535.

Eight plants were in Ontario and 8 in Quebec. Output of animal glue totalled 1,437 tons at \$335,903 compared with 1,181 tons at \$302,013 in 1933, and other glues were valued at \$354,598 as against \$350,848 in the previous year. Bone and hide glues were reported by 6 firms in 1934, vegetable glues by 3 plants, fish glue by 1 concern and casein glue by 2 companies. Rubber cement, mucilate, 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 1934 - vegetable glue, 968,159 pounds at \$36,905; animal glue, 1,259,786 pounds at \$100,600; liquid glue, 165,544 pounds at \$28,094; mucilage and adhesive paste, 194,321 pounds at \$23,793. Exports of glue were reported at 73,300 pounds valued at \$11,684.

Table 1 - PRINCIPAL STATISTICS, 1920 - 1934.

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
		\$		\$	\$	\$	\$
1920	17	2,233,364	414	480,473	1,070,493	2,202,059	1,131,566
1921	17	1,898,848	222	252,002	598,932	1,474,254	875,822
1922	17	2,108,688	526	352,124	643,917	1,537,649	893,732
1923	17	1,492,927	228	299,577	694,507	1,486,807	792,300
1924	18	1,648,678	247	303,696	635,538	1,434,883	799,345
1925	16	1,481,916	196	282,012	660,702	1,443,356	782,654
1926	15	1,569,001	240	328,597	866,464	1,710,095	843,631
1927	14	1,593,196	261	357,034	921,301	1,934,240	1,012,939
1928	14	1,805,699	283	345,152	984,301	1,956,865	972,564
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	16	2,271,071	283	314,005	463,199	1,141,761	678,562
1934	16	2,123,205	332	366,008	587,535	1,307,393	719,858

Table 2 - EMPLOYEES, SALARIES AND WAGES, 1930 - 1934.

Years	AVERAGE NUMBER OF EMPLOYEES					Salaries \$	Wages \$	TOTAL SALARIES AND WAGES \$
	On salaries		On wages		TOTAL			
	Male	Female	Male	Female				
1930	15	...	152	...	167	33,293	127,635	160,928
1931	13	...	110	...	123	28,112	91,020	119,132
1932	10	...	88	...	98	26,957	71,882	98,839
1933	10	...	128	...	138	16,205	97,228	113,433
1934	10	...	155	...	165	16,200	112,463	128,663

Table 3 - WAGE-EARNERS, BY MONTHS, 1933 and 1934.

Months	1933		1934		Months	1933		1934	
	Male	Female	Male	Female		Male	Female	Male	Female
January	181	...	181	...	July	22	...	108	...
February	221	...	164	...	August	22	...	105	...
March	210	...	154	...	September	96	...	133	...
April	105	...	146	...	October	164	...	200	...
May	76	...	154	...	November	163	...	191	...
June	73	...	110	...	December	164	...	199	...
AVERAGE FOR YEAR.						128	...	155	...

Table 4 - FUEL AND ELECTRICITY USED, 1933 and 1934.

Kinds	Unit of measure	1933		1934	
		Quantity	Cost at works \$	Quantity	Cost at works \$
		Bituminous coal - Canadian	short tons
Imported	short tons	9,932	56,706	7,772	47,336
Wood	cord	4,598	18,793	4,688	17,646
Other fuel	xx	...	5,316	...	6,254
Electricity purchased	K.W.H.	419,695	10,186	465,327	11,269
TOTAL	xxx	...	91,001	...	102,821

Table 5 - POWER EQUIPMENT, 1933 and 1934.

Kinds	1933		1934	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Steam engines and steam turbines	4	127	3	97
Total Primary Equipment	4	127	3	97
Electric motors run by purchased power	17	231	23	321
Total Power Employed	21	358	26	418
Electric motors run by primary power in same plant	2	30	1	15
Total Electric Motors	19	261	24	336
Boilers	24	4,400	20	3,050

Table 5 - EMPLOYEES, SALARIES AND WAGES, 1933 and 1934.

Provinces	AVERAGE NUMBER OF EMPLOYEES					Salaries \$	Wages \$	TOTAL SALARIES AND WAGES \$
	On salaries		On wages		TOTAL			
	Male	Female	Male	Female				
1933								
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
1934								
Quebec	28	4	83	6	121	49,057	65,375	114,432
Ontario	22	11	173	5	211	71,798	179,778	251,576
CANADA ...	50	15	256	11	332	120,855	245,153	366,008

Table 6 - WAGE-EARNERS, BY MONTHS, 1933 and 1934. (On 15th or nearest representative date)

Months	1933			1934		
	Male	Female	TOTAL	Male	Female	TOTAL
January	229	12	241	227	11	238
February	237	15	252	226	14	240
March	235	15	250	226	15	241
April	236	15	251	231	12	243
May	235	16	251	246	12	258
June	199	12	211	249	9	258
July	171	14	185	244	9	253
August	157	13	170	233	10	243
September	166	11	177	252	9	261
October	218	13	231	290	9	299
November	227	14	241	302	10	312
December	212	14	226	317	8	325
AVERAGE	212	14	226	256	11	267

Table 7 - FUEL AND ELECTRICITY USED, 1933 and 1934.

Kinds	Unit of measure	1933		1934	
		Quantity	Cost at works \$	Quantity	Cost at works \$
Anthracite coal	short tons	163	943	4	56
Bituminous coal - Canadian ...	short tons	2,125	14,590	1,837	10,501
Foreign ...	short tons	7,264	38,883	7,178	41,945
Coke	short tons	35	300	108	419
Gasoline	Imp. gal.	20	5	12	3
Fuel oil	Imp. gal.	192,833	9,556	187,131	9,186
Wood	cords	6	36	6	48
Gas - Manufactured	M cu.ft.	58	46	60	48
Electricity purchased	K.W.H.	507,494	14,353	538,047	14,992
TOTAL	xxx	...	78,712	...	77,198

Table 8 - POWER EQUIPMENT, 1933 and 1934.

	1 9 3 3		1 9 3 4	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Steam engines and steam turbines	7	432	6	555
Gasoline, gas and oil engines	1	5	1	2
Total Primary Equipment	8	437	7	557
Electric motors run by purchased power.	108	827	112	839
TOTAL	116	1,264	119	1,396
Boilers	19	2,185	20	2,255

Table 9 - MATERIALS USED IN MANUFACTURING, 1933 and 1934.

Materials	Unit of measure	1 9 3 3		1 9 3 4	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bones, hides and glue stock	ton	9,055	83,487	12,517	86,539
Dextrine	lb.	1,716,654	71,451	2,260,648	98,106
Flour, tapioca	lb.)			228,177	10,449
Flour, other	lb.)	1,378,037	28,651	1,323,022	30,319
Glycerine	lb.	31,043	3,105	54,636	6,350
Gums	lb.	13,263	1,249	25,001	1,913
Lime	ton	245	3,519	477	3,643
Resin	lb.	4,732,981	73,448	6,854,736	103,855
Rubber	lb.	24,013	2,395	23,696	3,350
Shellac	lb.	7,400	1,660	8,400	2,095
Soda ash	lb.	528,750	8,556	600,100	9,401
Solvents (benzol, naphtha, etc.)	gal.	42,043	8,934	45,017	10,206
Starch	lb.	566,295	25,466	582,315	33,886
Sulphur	lb.	117,345	1,992	93,446	1,538
Sulphuric acid, 66° Be.	lb.	363,677	5,285	309,571	5,830
All other materials ... (x)	xx	...	116,495	...	145,285
Bottles, tops, brushes, boxes, etc.	xx	...	27,508	...	34,770
TOTAL	xx	...	463,199	...	587,535

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

Table 10 - PRODUCTS MADE, 1933 and 1934.

Products		1 9 3 3		1 9 3 4	
		Quantity	Selling value at works	Quantity	Selling value at works
			\$		\$
Bone and hide glue	lb.	2,561,599	302,015	2,873,936	335,903
Fish, casein and vegetable glues(xx) ..	xx	...	350,848	...	354,598
Mucilage and paste (xx)	xx	...	101,613	...	121,075
All other products ... (x)	xx	...	387,287	...	495,817
TOTAL	xx	...	1,141,761	...	1,307,393

(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 \$190,765 compared with \$147,302 in 1933.

(x) Includes resin size, rubber cement, sealing wax, mixed fertilizers, poultry food, fox food, raw bone, steamed bone, 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, 1933 and 1934.

	1933		1934	
	Quantity	Value	Quantity	Value
	Lb.	\$	Lb.	\$
(a) IMPORTS				
Glue, vegetable -				
TOTAL IMPORTS	837,106	34,578	968,159	36,905
From - United Kingdom	19,754	1,267	28,738	1,732
United States	688,866	28,473	696,931	28,738
Mucilage and adhesive paste -				
TOTAL IMPORTS	159,513	22,144	194,321	23,793
From - United Kingdom	33,320	7,884	44,729	6,973
United States	125,448	14,166	141,994	16,310
Glue, animal, powdered or sheet -				
TOTAL IMPORTS	1,337,943	97,783	1,259,786	100,600
From - United Kingdom	1,141,532	79,822	1,006,962	73,148
United States	59,596	8,860	121,237	15,606
Glue, liquid -				
TOTAL IMPORTS	153,197	30,653	165,544	28,094
From - United Kingdom	76,832	12,366	98,384	15,712
United States	69,115	16,714	66,431	12,125
(b) EXPORTS				
Glue -				
TOTAL EXPORTS	57,500	6,821	73,300	11,684
To - United Kingdom	39,200	4,834	51,800	8,526
United States	13,000	1,264	10,100	905
Glue stock -				
TOTAL EXPORTS	1,500,100	7,285	2,284,500	9,276
To - United Kingdom	68,100	340	414,000	2,069
United States	1,432,000	6,945	1,870,500	7,207



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DIRECTORY OF FIRMS IN THE ADHESIVES INDUSTRY, 1934.

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, 1934.</u>
Auger, F. X.	2 Garagonthie St., St.Malo, P.Q.	Bone and hide glue; grease; tallow and fertilizers.
Boston Blacking Company of Canada, Limited	1505 Cabot St., Cote St. Paul, Montreal, P.Q.	Rubber cement.
Bulldog Grip Cement Co. Inc.	2101 Bennett Ave., Montreal, P.Q.	Casein glue; milk powder; casein.
Canada Glue Co. Limited	Brantford, Ont.	Bone and hide glue; grease; steamed bone; raw bone meal.
Dominion Flour Paste Co., The Gypsum, Lime and Alabastine, Canada, Ltd.	2122 $\frac{1}{2}$ Champlain St., Montreal, P.Q.	Flour paste; size.
Harris, W., & Co. Limited	1 Strange St., Kitchener, Ont. 200 Keating St., Toronto, 2, Ont.	Hide glue; grease. Bone and hide glue; grease; tankage; fox food, poultry food; hides; fertilizers.
Hercules Glue Co. Machon Sealing Wax Co.	Stanbridge, P.Q. Rear 47 St. James Ave., Toronto, 5, Ont.	Casein glue; size. Sealing wax.
Marquis, F. Canac, Reg'd.	3 Courcelette St., Quebec, P.Q.	Bone and hide glue; grease and tallow; fertilizers.
Meredith, Simmons & Co. Limited	Canal Bank, Cote St. Paul, Montreal, P.Q., and 371 Wallace Ave., Toronto, Ont.	Liquid and dry vegetable glue; size; bone and hide 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.	Vegetable glue; paste; size.
Wolverine Cement Co.	145 Dalhousie St., Brantford, Ont.	Linoleum cement, and plastic wall finish.