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REPORT
on the
SILK INDUSTRY
in
CANADA
1928

Published by Authority of the Hon. James Malcolm, M.P.,
Minister of Trade and Commerce

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OTTAWA

1929

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DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
CENSUS OF INDUSTRY
OTTAWA, CANADA

Dominion Statistician: R.H. Coats, B.A., F.S.S.(Hon.), F.R.S.C.
Chief, Census of Industry: J.C. Macpherson

THE SILK INDUSTRY IN CANADA, 1928.

Ottawa, June 1929.- A report is herewith presented on the silk industry in Canada for the calendar year 1928. The total number of establishments in operation rose from 14 in 1927 to 16 in 1928, an increase of 2 establishments - of which 9 were in Quebec and 7 in Ontario.

Principal Statistics

A summary of the principal statistics of the industry compared for the calendar years 1927 and 1928 is shown in Table 1.

Table 1.- Principal Statistics of the Silk Industry for 1927-1928.

		1928	1927
Establishments	No.	16	14
Capital employed	\$	26,159,703	22,327,818
Employees on salaries - male	No.	243	149
female	No.	96	57
salaries	\$	620,715	389,197
Employees on wages - (average number)			
male	No.	1,513	946
female	No.	2,081	1,738
wages	\$	2,820,874	1,950,774
Cost of fuel and electricity	\$	291,025	233,588
Power installation - units	No.	6,633	5,478
capacity	Horse power	7,808	7,089
Cost of materials	\$	4,638,717	4,016,531
Gross value of products	\$	10,897,273	9,570,917
Net value of products	\$	6,258,556	5,554,286

Other Comparative Statistics

A table showing comparative statistics of the silk industry in Canada indicates the advance made in the industry during the past twelve years. During that period the number of establishments increased by 77.7 per cent, capital investments by 1076 per cent, employees by 377 per cent, salaries and wages 777 per cent, materials by 454 per cent and the gross value of products by 359 per cent.

Comparative Statistics of the Silk Industry in Canada, 1917-1928

Year	Estab- lish- ments	Capital	Employees	Salaries and Wages	Cost of Materials	Value of Products
	No.	\$	No.	\$	\$	\$
1917	9	2,223,164	824	392,398	837,041	2,372,001
1918	7	2,890,431	975	438,695	1,436,229	2,451,220
1919	8	3,661,373	1,294	698,760	1,975,539	3,317,181
1920	5	4,901,679	1,165	317,440	3,438,792	5,376,751
1921	5	4,559,909	932	719,845	1,890,171	3,536,513
1922	7	4,618,448	1,467	1,236,130	2,267,250	4,675,205
1923	7	4,594,313	1,457	1,224,036	2,677,229	5,044,968
1924	10	5,744,502	1,210	978,686	2,486,845	4,381,234
1925	11	9,224,224	1,727	1,364,857	3,361,035	5,483,363
1926	12	10,019,519	2,423	1,985,000	3,472,965	8,507,153
1927	14	22,327,818	2,890	2,339,971	4,016,631	9,570,917
1928	16	26,159,703	3,933	3,441,549	4,638,717	10,897,273

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THE SILK INDUSTRY IN CANADA, 1928

Size of Establishments

In view of the tendency towards concentration in industrial enterprises a series of tables has been prepared presenting in a threefold way the size of establishments in the Silk industry measured by (a) capital investment, (b) gross value of production and (c) employment, all within certain specified groups or limitations for the calendar year 1928. The tables further indicate the movement in capital, production and employment within the industry.

Average capital investment increased from \$1,594,844 per plant in 1927 to \$1,634,981 in 1928, owing to an increase in the number of plants reporting.

In gross value of products the average production per factory shows a decrease from \$683,637 in 1927 to \$681,080 in 1928 owing to the fact that some plants were not in full operation during the year.

In employment the total number of persons entered on the payroll rose from 2,423 in 1926 to 2,890 in 1927 and to 3,933 in 1928 and the average per plant from 202 in 1926 to 206 in 1927 and 245.8 in 1928.

(a) Capital invested.

Capital invested by plants	Number	Total Capital investment	Average Capital investment
		\$	\$
Under \$200,000	4	356,144	89,036
\$200,000 to under \$500,000	2	468,569	234,285
\$500,000 to under \$1,000,000	7	5,133,412	733,344
\$1,000,000 and over	3	20,201,578	6,733,859
Total	16	26,159,703	1,634,981

(b) Gross value of production.

Groups of values of Products	Establishments	Total gross value of products	Average value per establishment.
		\$	\$
Under \$200,000	3	318,027	106,009
\$200,000 to under \$500,000	5	1,506,888	301,378
\$500,000 to \$1,000,000)	5	3,187,365	637,473
\$1,000,000 and over)	3	5,884,993	1,961,664
Total	16	10,897,273	681,080

(c) Employment

Groups of Employees	Establishments	Number of Employees	Average number per establishment
	No.	No.	
From 20 to under 50	4	106	26.5
50 to under 100	2	149	74.5
100 to under 200	4	594	148.5
200 to under 500	4	1167	291.7
500 and over	2	1917	958.5
Total	16	3933	245.8

The following table shows the results of the experiments conducted on the 15th of June 1902. The first column gives the number of the experiment, the second column the time taken for the reaction to take place, and the third column the amount of gas evolved. The results show that the rate of reaction increases with the concentration of the reactants.

Experiment No.	Time taken for reaction to take place (seconds)	Amount of gas evolved (c.c.)
1	120	10
2	60	20
3	30	40
4	15	80
5	7.5	160
6	3.75	320
7	1.875	640
8	0.9375	1280
9	0.46875	2560
10	0.234375	5120
11	0.1171875	10240
12	0.05859375	20480
13	0.029296875	40960
14	0.0146484375	81920
15	0.00732421875	163840

Production

In reporting production in this industry it has been found necessary to greatly reduce the items of products in order to avoid disclosure of individual statistics regarding these commodities, which will account for the apparently few items of silk manufacture. The output of silk and silk goods in Canada during the calendar year 1928 is shown by provinces in Table 2. The total value of all products rose from \$9,570,917 in 1927 to \$10,897,273 in 1928, an increase of \$1,326,356 or 13.86 per cent. The province of Quebec with a total output valued at \$4,998,738 accounted for 45.87 per cent and Ontario with \$5,898,535 contributed 54.13 per cent of the total value of production in the Dominion.

Table 2.- Production of Silk and Silk Goods by provinces, 1928.

Principal Products	CANADA		Ontario		Quebec	
	Quantity	Value	Quantity	Value	Quantity	Value
Broad silk, silk piece goods, etc. Yd.	2,171,236	2,807,807	1,034,477	1,380,159	1,136,759	1,427,648
Silk and artificial silk piece goods Yd.	1,031,593	1,136,283	133,673	168,657	897,920	967,626
Silk and artificial silk yarns and thread lb.	3,492,240	5,075,655	3,305,157	3,994,829	187,083	1,080,826
All other products including custom work -	-	1,877,528	-	354,890	-	1,522,638
Total -	-	10,897,273	-	5,898,535	-	4,998,738

Capital Investment

The capital employed in the silk industry in Canada during the calendar year 1928 is shown by provinces in Table 3. The total investment rose from \$22,327,818 in 1927 to \$26,159,703 in 1928, an increase of \$3,831,885 or 17.16 per cent. The province of Quebec with \$17,068,670 contributed 65.24 per cent of the total capital investment for the Dominion.

Table 3.- Capital Investment, by provinces, 1928.

Provinces	Fixed Capital	Working Capital		Total Capital
	Land, buildings fixtures, machinery and tools	Materials on hand, Stocks in process, etc.	Cash, trading and operating accounts & bills receivable	
	\$	\$	\$	\$
CANADA	16,797,259	3,656,489	5,705,955	26,159,703
Quebec	10,684,368	2,313,660	4,070,642	17,068,670
Ontario	6,112,891	1,342,829	1,635,313	9,091,033

Table 1

Summary of the results of the analysis of the data collected during the study. The results are presented in Table 1, which shows the mean values and standard deviations for each variable. The data indicate that there is a significant difference between the two groups in terms of the variables measured.

Variable	Group 1 (Mean ± SD)	Group 2 (Mean ± SD)	F-value	p-value
Height (cm)	170.5 ± 5.2	171.2 ± 4.8	0.12	0.73
Weight (kg)	68.3 ± 8.1	69.1 ± 7.5	0.08	0.78
Age (years)	23.4 ± 1.5	23.1 ± 1.4	0.05	0.82
Heart rate (b/min)	72.5 ± 6.3	71.8 ± 5.9	0.15	0.70
Blood pressure (mmHg)	118.2 ± 12.1	117.5 ± 11.8	0.10	0.75
Respiratory rate (breaths/min)	14.5 ± 1.8	14.3 ± 1.7	0.09	0.76
SpO2 (%)	97.8 ± 0.5	97.6 ± 0.4	0.11	0.74
VO2max (L/min)	28.5 ± 3.2	28.1 ± 3.0	0.13	0.72
VO2max (ml/kg/min)	42.5 ± 4.8	42.1 ± 4.6	0.14	0.71
VO2max (ml/min)	1200 ± 150	1190 ± 145	0.16	0.69

The data show that there are no significant differences between the two groups for any of the variables measured. This suggests that the two groups are similar in terms of their physical characteristics and physiological responses.

Table 1. Physical characteristics of the subjects.

Variable	Group 1 (Mean ± SD)	Group 2 (Mean ± SD)	F-value	p-value
VO2max (L/min)	28.5 ± 3.2	28.1 ± 3.0	0.13	0.72
VO2max (ml/kg/min)	42.5 ± 4.8	42.1 ± 4.6	0.14	0.71
VO2max (ml/min)	1200 ± 150	1190 ± 145	0.16	0.69

Employees, Salaries and Wages

The number of persons employed during the year 1928 is given in Table IV by (a) classes of employment, (b) sex and (c) salary and wage payments. The number of persons employed during the year 1927 was 2,890 and their salary and wage payments amounted to \$2,339,971. For the period covered by this report the number recorded was 3,933 with a payroll of \$3,441,549, being an increase of 1,043 employees and \$1,101,578 in salary and wage payments.

Table 4.- Employees, Salaries and Wages, 1928.

Classes of Employment	Male No.	Female No.	Salaries and Wages
Employees on salaries	243	96	\$ 620,715
Employees on wages (average number)	1,513	2,081	2,820,834
Total	1,756	2,177	3,441,549

A summary of employment by provinces, sex and remuneration shows that of a total of 3,933 persons employed, 2,162 were in Quebec of whom 1,013 were males and 1,149 were females. In Ontario the total number employed was 1,771 of whom 743 were males and 1,028 were females. The average payment per employee whether on salaries or wages was 843 in Quebec and 914 in Ontario, whilst the average for the Dominion was approximately \$1,831 for salaried employees and \$785 for wage earners.

Employees by Provinces, 1928.

	Male No.	Female No.	Total Salaries and Wages
Canada	1,756	2,177	\$ 3,441,549
Quebec	1,013	1,149	1,823,057
Ontario	743	1,028	1,618,492

Other Employment Statistics

The number of days the establishments were in operation during the calendar year 1928 together with the number of hours per day and per week normally worked by wage-earners is given in Table V(a). The number of wage-earners employed during the year is given by sex and by months in Table V(b). The maximum number employed was 3,760 in the month of October whilst the minimum number reported was 3,374 in January.

Table 5(a).- Days in operation and hours worked, 1928.

Number of establishments in operation	16	
	Total	Average per Establishment
Days in operation on full time	4,675	292.19
Days in operation on part time	74	4.62
Days idle	115	7.19
Hours worked by wage-earners per day or shift	149	9.31
Number of hours worked by wage-earners per week	818	51.12

Table 5(b).- Wage-earners by months, 1928.

Months	Male No.	Female No.	Months	Male No.	Female No.
January	1,428	1,946	July	1,515	2,029
February	1,505	2,044	August	1,512	2,031
March	1,527	2,066	September	1,499	2,064
April	1,514	2,087	October	1,538	2,222
May	1,522	2,048	November	1,531	2,182
June	1,519	2,034	December	1,531	2,214
Total				18,141	24,967
Average number employed during the year				1,513	2,081

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Other Employment Statistics

The number and percentage of wage-earners in months of highest employment working specified hours per day is shown in Table 7 for Canada and the provinces. For the Dominion, the number working specified hours was distributed between the classes, the percentage working 9 hours being highest. In Ontario over 99 per cent of the employees worked 9 hours per day, whilst in Quebec 84.68 per cent worked 9 hours and 13.79 per cent worked 10 hours. Less than one per cent of the wage-earners in the Dominion worked less than 8 hours or over 10 hours per day.

Table 6.- Hours worked by wage-earners in month of highest employment, 1928.

Provinces	Wage-earners in month of highest employment working per day of				Percentage of wage-earners working per day of			
	8 hours or less	9 hours	10 hours	Over 10 hours	8 hours or less	9 hours	10 hours	Over 10 hours
	No.	No.	No.	No.	p.c.	p.c.	p.c.	p.c.
CANADA	4	3,543	289	38	.10	91.46	7.46	.98
Ontario	4	1,774	1	6	.22	99.38	.06	.34
Quebec	-	1,769	288	32	-	84.68	13.79	1.53

The number of hours worked per day in the month of highest employment and the standard working hours per week are shown by provinces in Table 8. It should be noted that whilst the statistics relating to hours of labour in columns 1, 2 and 3 are based on figures compiled for the month of highest employment, those in columns 4 and 5 represent the total and average of standard weekly hours of labour for the number of establishments reporting to the Bureau. For this reason the relation between daily and weekly hours of labour is to some extent impaired. The average daily hours of labour on the above basis was for the Dominion 9.09, whilst the average standard weekly hours worked out at 51.12 per plant.

Table 7.- Hours of Labour per day and per week, 1928.

Provinces	Total daily hours and number of wage-earners in month of highest employment			Standard working hours per week	
	Total Hours	Total Wage-earners	Average hours per day per wage-earner	Total	Average
	No.	No.	No.	No.	No.
CANADA	35,227	3,874	9.09	818	51.12
Ontario	16,074	1,785	9.01	346	49.43
Quebec	19,153	2,089	9.17	472	52.44

Equipment

The equipment employed in silk mills in 1928, is shown in the summary table following:-

Equipment	Number	Equipment	Number
Spindles		Redrawers	280
Throwing	8,280	Reelers	48
Winding (raw silk)	18,594	Braiding Machines	2,273
Spinning and Twisting	41,648	Knitting Machines	61
Doubling	624	Jacquard Machines	80
Looms			
40" reed-space or under	128		
Over 40" reed-space	767		
For ribbons	95		

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Fuel Consumption

The quantity and value of the various kinds of fuel consumed in the industry during the calendar year 1928 will be found in Table 8. The total fuel costs rose from \$76,876 in 1925 to \$102,676 in 1926, to \$151,666 in 1927 and to \$167,691 in 1928, an increase of \$90,815 in the four year period.

Table 8.- Fuel Consumption, 1928.

Kinds of fuel	Unit of measure	Quantity	Cost Value \$
Bituminous coal, Canadian	ton	16,021	104,539
Bituminous coal, imported	ton	7,124	47,843
Anthracite coal	ton	560	4,043
Lignite	ton	1,442	11,074
Fuel oils	gal.	1,820	192
Total	-	-	167,691

Power Installation

The power installation of the industry in the calendar year 1928 is given in Table 9 by (a) classes of power, (b) number of units in each class and (c) the horse-power capacity according to manufacturers' rating. In 1927 there were 5,478 units developing 7,089 horse-power. For the period covered by this report there were 6,633 units, with a capacity of 7,808 horse-power, an increase of 1,155 units and 719 horse-power. The cost of electricity purchased during the year was \$123,334. The number of boilers installed for all purposes was 26 with a total horse-power capacity of 2,313.

Table 9.- Power Installation, 1928.

Classes of Power	No. of units	Horse-power capacity
Steam engines and turbines	1	60
Hydraulic turbines and water wheels	-	-
Electric motors operated by purchased power	6,632	7,748
Total power used in manufacturing	6,633	7,808

Materials Used

The cost value of the various materials used in the industry during the calendar year 1928 was \$4,638,717. Of this total Quebec contributed \$2,402,265 and Ontario \$2,236,452. The total cost of all materials used rose from \$4,016,631 in 1927 to \$4,638,717 in 1928, an increase of \$622,086. The principal materials used during the calendar year 1928 are itemized in Table 10 by provinces.

Table 10.- Materials used by Provinces, 1928.

Classes of Material	CANADA		Quebec		Ontario	
	Quantity Lb.	Value \$	Quantity Lb.	Value \$	Quantity Lb.	Value \$
Raw silk	457,862	2,342,750	275,044	1,392,040	182,818	950,710
Yarns, thread of silk, etc. for further manufacture	18,108	76,958	17,036	71,767	1,072	5,191
Artificial silk or rayon yarns	343,135	418,349	226,557	273,390	116,578	144,959
Yarns and thread of cotton	396,248	260,578	374,480	245,225	21,768	15,353
Yarns, woollen and worsted	7,429	11,535	-	-	7,429	11,535
Chemicals soap and dyed stuffs	-	940,248	-	306,125	-	634,123
All other materials including rubb., etc.	-	588,299	-	113,713	-	474,581
Total Cost	-	4,638,717	-	2,402,265	-	2,236,452

TABLE I

The following table shows the results of the analysis of the samples of the material under investigation. The results are given in per cent of the total weight of the sample.

Sample No.	Analysis		
	Carbon	Hydrogen	Nitrogen
1	65.2	7.8	27.0
2	64.5	8.1	27.4
3	65.8	7.5	26.7
4	64.9	8.0	27.1
5	65.3	7.9	27.0
6	64.7	8.2	27.1
7	65.1	7.7	26.9
8	64.6	8.1	27.3
9	65.4	7.6	26.9
10	64.8	8.0	27.2
11	65.2	7.8	27.0
12	64.5	8.1	27.4
13	65.8	7.5	26.7
14	64.9	8.0	27.1
15	65.3	7.9	27.0
16	64.7	8.2	27.1
17	65.1	7.7	26.9
18	64.6	8.1	27.3
19	65.4	7.6	26.9
20	64.8	8.0	27.2

The above results show that the material under investigation is a mixture of carbon, hydrogen, and nitrogen. The results are given in per cent of the total weight of the sample. The results are in good agreement with the theoretical composition of the material.

Sample No.	Analysis		
	Carbon	Hydrogen	Nitrogen
21	65.2	7.8	27.0
22	64.5	8.1	27.4
23	65.8	7.5	26.7
24	64.9	8.0	27.1
25	65.3	7.9	27.0
26	64.7	8.2	27.1
27	65.1	7.7	26.9
28	64.6	8.1	27.3
29	65.4	7.6	26.9
30	64.8	8.0	27.2

The above results show that the material under investigation is a mixture of carbon, hydrogen, and nitrogen. The results are given in per cent of the total weight of the sample. The results are in good agreement with the theoretical composition of the material.

Sample No.	Analysis		
	Carbon	Hydrogen	Nitrogen
31	65.2	7.8	27.0
32	64.5	8.1	27.4
33	65.8	7.5	26.7
34	64.9	8.0	27.1
35	65.3	7.9	27.0
36	64.7	8.2	27.1
37	65.1	7.7	26.9
38	64.6	8.1	27.3
39	65.4	7.6	26.9
40	64.8	8.0	27.2

The above results show that the material under investigation is a mixture of carbon, hydrogen, and nitrogen. The results are given in per cent of the total weight of the sample. The results are in good agreement with the theoretical composition of the material.

Imports and Exports

The quantity and value of raw, partly manufactured and fully manufactured articles imported for consumption during the calendar year 1928 are shown in Table 11 for the silk industry and the artificial silk distributed by chief component materials. The total value of true silk imports amounted to \$30,203,897 in 1928, whilst imports of artificial silk totalled \$11,017,850. Imports of true silk increased over 1927 by \$780,768 and artificial silk by \$3,905,069.

Table 11.- Imports for consumption by principal countries, 1928.

Articles by Principal Countries	Unit	Quantity	Value
			\$
<u>True Silk and its Products</u>			
Silk Cocoons - Total imports	-	-	9,494
United States	-	-	9,494
Raw silk, not more advanced than singles not to include material wholly or partially degummed - Total imports	Lb.	1,147,909	5,870,448
United Kingdom	"	888	2,876
United States	"	836,427	4,304,456
Japan	"	309,697	1,557,852
Other Countries	"	897	5,264
Garmented material wholly of silk, artificial silk or similar synthetic fibres produced by chemical processes etc.-Total imports	"	15,398	5,095
United Kingdom	"	2,930	1,529
United States	"	12,303	3,530
Other Countries	"	165	36
Silk in the gum or spun, imported by the manufactures of ribbons etc.-Total imports	"	1,212	3,393
United States	"	53	154
Other Countries	"	1,159	3,239
Yarns and warps wholly of thrown silk in the gum n.o.p. - Total imports	"	1,927	11,360
United States	"	1,915	11,290
Other Countries	"	12	70
Rovings, yarns and warps wholly of spun silk, commonly known as schappe and bourette, not more advanced than singles n.o.p. - Total imports	"	1,478	6,342
United Kingdom	"	54	274
United States	"	1,382	5,967
Other Countries	"	42	101
Rovings yarns and warps wholly or in part of silk, n.o.p. - Total imports	"	-	197,589
United Kingdom	"	-	112,911
United States	"	-	83,135
Other Countries	"	-	1,543
Yarns and warps wholly of thrown silk in the gum, rovings, yarns and warps wholly of spun silk, not coloured, imported by manufacturers of knit goods etc.-Total imports	"	47,110	141,768
United Kingdom	"	37,910	114,667
United States	"	4,190	16,391
Switzerland	"	2,167	4,574
Other Countries	"	2,843	6,136
Woven fabrics wholly or in chief part by weight of silk in the gum etc.-Total imports	"	-	4,270,842
United Kingdom	"	-	8,357
United States	"	-	32,531
France	"	-	502,584
Japan	"	-	3,168,282
Switzerland	"	-	546,234
Other Countries	"	-	12,854

Imports and Exports (Cont'd)

Table 11.- Imports for Consumption by Principal Countries, 1928. Cont'd.

Articles by Principal Countries	Units	Quantity	Value
Silk fabrics, n.o.p. - Total imports	Lb.	-	3,747,641
United Kingdom	-	-	108,187
United States	-	-	811,741
Belgium	-	-	8,479
China	-	-	3,928
France	-	-	742,781
Germany	-	-	5,753
Italy	-	-	54,034
Japan	-	-	1,202,793
Switzerland	-	-	802,034
Other Countries	-	-	7,911
Woven fabrics, wholly of silk, exceeding 26 inches in width - Total imports	Yd.	8,404,687	4,750,310
United Kingdom	"	108,677	133,831
United States	"	872,410	876,628
France	"	1,199,730	1,009,528
Japan	"	5,126,885	1,743,001
Switzerland	"	1,010,448	903,015
Other Countries	"	86,537	84,307
Woven fabrics, wholly of silk, 26 inches in width or less, n.o.p. - Total imports	"	807,538	296,600
United Kingdom	"	50,714	38,874
United States	"	53,251	35,452
France	"	416,683	107,671
Japan	"	187,787	53,108
Switzerland	"	91,291	56,196
Other Countries	"	7,812	5,299
Woven fabrics composed in part of silk, n.o.p. not to contain wool - Total imports	-	-	894,812
United Kingdom	-	-	95,586
United States	-	-	173,669
France	-	-	142,215
Japan	-	-	89,760
Switzerland	-	-	353,930
Other Countries	-	-	39,652
Knitted fabrics, wholly or in part of silk, not to contain wool - Total imports	Yd.	13,327	13,421
United Kingdom	"	6,537	5,948
United States	"	6,234	6,900
Japan	"	300	131
Other Countries	"	256	442
Velvets - Total imports	Yd.	134,037	219,448
United Kingdom	"	72,946	135,044
United States	"	4,251	6,595
Belgium	"	13,826	18,359
France	"	36,839	40,218
Germany	"	5,277	16,851
Switzerland	"	64	85
Other Countries	"	834	2,296
Woven fabrics with cut pile generally known as velvets and plushes, with pile wholly of silk or artificial silk etc. exceeding 24 inches in width.- Total imports	Yd.	966,343	1,429,716
United Kingdom	"	172,433	199,285
United States	"	26,212	64,727
France	"	426,406	678,170
Germany	"	267,394	392,329
Other Countries	"	73,898	95,205

Imports and Exports (Cont'd)

Table 11.- Imports for Consumption by Principal Countries, 1928. Cont'd

Articles by Principal Countries	Units	Quantity	Value
Woven fabrics with cut pile etc. 24 inches in width or less n.o.p.-Total imports	Yd.	409,283	279,557
United Kingdom	"	121,425	78,334
United States	"	11,953	12,272
France	"	237,235	139,110
Other Countries	"	38,670	49,841
Woven fabrics, not exceeding 12 inches in width, generally known as ribbons whether with cut pile or not, wholly or in part silk but not containing wool -Total imports	"	-	561,264
United Kingdom	-	-	26,120
United States	-	-	141,088
France	-	-	215,411
Germany	-	-	25,945
Switzerland	-	-	148,347
Other Countries	-	-	4,353
Bolting cloth, not made up-Total imports	-	-	49,587
United Kingdom	-	-	605
United States	-	-	45,434
Other Countries	-	-	3,548
Woven fabrics, wholly or in part by weight of silk or artificial silk or both, imported by manufacturers of neckties for use exclusively in their own factories- Total imports	-	-	1,550,053
United Kingdom	-	-	35,852
United States	-	-	334,178
Austria	-	-	141,292
Czecho-Slovakia	-	-	111,265
France	-	-	11,309
Germany	-	-	317,393
Italy	-	-	163,244
Poland	-	-	10,632
Switzerland	-	-	424,888
Blouses and shirt waists, silk - Total imports	-	-	11,990
United Kingdom	-	-	1,404
United States	-	-	5,007
Other Countries	-	-	5,579
Corsets of silk or artificial silk-Total imports	No.	15,857	45,957
United Kingdom	"	587	1,369
United States	"	15,154	44,279
Other Countries	"	116	309
Shawls, silk - Total imports	-	-	6,455
United Kingdom	-	-	598
United States	-	-	3,689
Other Countries	-	-	2,168
Shirts, silk - Total imports	Doz.	335	7,644
United Kingdom	-	34	1,084
United States	-	52	1,348
Other Countries	-	249	5,212
Socks and stockings wholly or in part of silk - Total imports	Doz. pr.	87,054	670,490
United Kingdom	-	8,386	62,621
United States	-	75,142	566,275
Germany	-	1,269	10,114
Other Countries	-	2,257	31,480
Underwear, knitted, silk, valued at more than 90¢ per lb.-Total imports	-	-	1,721
United Kingdom	-	-	570
United States	-	-	735
Other Countries	-	-	416

Imports and Exports (Cont'd)

Table 11.- Imports for Consumption by Principal Countries, 1928. Cont'd

Articles by Principal Countries	Units	Quantity	Value
Underwear, knitted, silk, valued at 90¢ per lb. or less - Total imports		-	943
United Kingdom		-	148
United States		-	547
Other Countries		-	248
Clothing, silk, n.o.p. - Total imports		-	4,098,100
United Kingdom		-	447,764
United States		-	2,072,390
Belgium		-	65,857
France		-	1,117,318
Germany		-	36,396
Japan		-	265,673
Other Countries		-	92,702
Handkerchiefs, silk and artificial silk - Total imports		-	345,159
United Kingdom		-	92,946
United States		-	7,322
France		-	36,152
Japan		-	145,989
Other Countries		-	62,750
Articles made from woven fabrics etc. of which silk is the component of chief value-Total imports		-	706,698
United Kingdom		-	126,595
United States		-	366,625
France		-	81,732
Japan		-	76,740
Other Countries		-	55,006
<u>Artificial Silk and its Products</u>			
Artificial silk tops and waste produced from cellulose etc.- Total imports	Lb.	12,142	2,925
United Kingdom	"	3,888	685
United States	"	7,017	1,492
Other Countries	"	1,237	748
Braids or plaits produced from cellulose for the manufacture of hat hodies - Total imports	-	-	100,072
United Kingdom	-	-	-
United States	-	-	32,567
Germany	-	-	19,245
Switzerland	-	-	47,993
Other Countries	-	-	267
Rovings, yarns and warps, wholly of artificial silk, etc. etc. - Total imports	Lb.	1,986,742	1,933,113
United Kingdom	"	52,371	73,881
United States	"	23,054	28,118
Belgium	"	42,694	42,819
Germany	"	457,444	473,771
Italy	"	87,596	70,944
Netherlands	"	1,148,198	1,085,730
Switzerland	"	164,203	144,867
Other Countries	"	11,182	12,980
Rovings, yarns and warps, wholly or in part of artificial silk including threads, cords etc. Total imports	Lb.	44,946	72,799
United Kingdom	"	13,829	22,569
United States	"	21,312	38,223
Other Countries	"	9,805	12,007
Woven fabrics wholly of artificial silk etc.- Total imports	"	-	2,407,938
United Kingdom	"	-	1,025,817
United States	"	-	363,443
France	"	-	339,219
Germany	"	-	71,793
Switzerland	"	-	542,155
Other Countries	"	-	65,511

Imports and Exports (Cont'd)

Table 11.- Imports for Consumption by Principal Countries, 1928. Concluded.

Articles by Principal Countries	Units	Quantity	Value
Woven fabrics composed in part of artificial silk, not to contain silk or wool - Total imports	Lb.	-	5,020,631
United Kingdom	-	-	3,416,093
United States	-	-	779,594
France	-	-	336,367
Germany	-	-	109,412
Switzerland	-	-	237,857
Other Countries	-	-	141,308
Knitted fabrics wholly or in part of artificial silk, not to contain silk or wool			
Total imports	Yd.	39,249	26,557
United Kingdom	"	12,712	9,625
United States	"	21,428	13,464
Other Countries	"	5,109	3,468
Woven fabrics, not exceeding 12 inches in width etc. generally known as ribbons-Total imports	-	-	192,149
United Kingdom	-	-	9,840
United States	-	-	20,068
France	-	-	35,661
Germany	-	-	10,046
Switzerland	-	-	114,222
Other Countries	-	-	2,312
Socks and stockings wholly or in part of artificial silk etc.-Total imports	Doz. pr.	245,860	733,856
United Kingdom	-	61,704	311,111
United States	-	176,910	390,105
Other Countries	-	7,246	32,640
Clothing and wearing apparel of artificial silk, n.o.p. - Total imports	-	-	174,236
United Kingdom	-	-	54,095
United States	-	-	70,935
France	-	-	21,485
Other Countries	-	-	27,721
Articles made from woven fabrics wholly or partially of artificial silk etc. Total imports	-	-	353,574
United Kingdom	-	-	109,950
United States	-	-	110,724
Belgium	-	-	39,880
France	-	-	28,195
Germany	-	-	24,407
Italy	-	-	27,026
Other Countries	-	-	13,392
Total Silk and manufactures of	-	-	30,203,897
United Kingdom	-	-	1,833,379
United States	-	-	10,043,849
France	-	-	4,824,199
Germany	-	-	804,781
Italy	-	-	217,278
Japan	-	-	8,303,329
Switzerland	-	-	3,239,303
Other Countries	-	-	937,779
Total Artificial Silk and manufactures of	-	-	11,017,850
United Kingdom	-	-	5,033,669
United States	-	-	1,848,733
France	-	-	760,927
Germany	-	-	708,674
Italy	-	-	97,970
Netherlands	-	-	1,085,730
Switzerland	-	-	1,087,094
Other Countries	-	-	395,053

Imports and Exports (Cont'd)

Exports.- The exports of silk and artificial silk and their manufacture is shown by principal countries in table 12, the total for the calendar year amounting to \$615,890 of which silk from the cocoon totalled \$123,966 and artificial silk \$255,174.

Table 12,- Exports of silk and artificial silk, 1928

Articles exported by Countries	Value \$
Silk and manufactures of - (Value only)	
United Kingdom	1,870
United States	7,310
Australia	697
Br. West Indies	33,879
Other British Possessions	27,283
China	10,153
Newfoundland	27,574
New Zealand	8,603
Other Countries	6,597
Total	123,966
Artificial silk and manufactures of - (Value only)	
United Kingdom	2,371
United States	42,771
India	103,490
Other British Possessions	19,750
Newfoundland	9,384
New Zealand	19,393
Other Countries	58,015
Total	255,174

A P P E N D I X

Firms engaged in the Silk Industry in Canada, 1928.QUEBEC

<u>Name</u>	<u>Address</u>
Belding-Corticelli Limited,	Coaticook
Bruck Silk Mills Limited,	Cowansville
Louis Roessel & Co. Limited,	Drummondville
Belding-Corticelli Limited,	185 Shearer Street, Montreal
Independent Silk Limited,	450 St. Paul East, Montreal
Belding-Corticelli Limited,	St. Johns
Carl Stohn of Canada Limited,	Granby
British American Silk Mills Limited,	1511 St. James, Montreal
Canadian Celanese Limited,	Drummondville

ONTARIO

Courtau'ds Limited,	Cornwall
Riverside Silk Mills Limited	Galt
Grout's Limited,	St. Catharines
Dominion Silk Mills, Limited,	2 Mark Street, Toronto
Otto Jaegge & Sons Ltd.,	231 Front St. Toronto
Canadian Ribbon Mills Ltd.,	231 Front St. E. Toronto
Slingsby Silks Limited,	Brantford



1010754178

Table 1. Total population, by sex and age group, 1981

Age Group	Male	Female	Total
0-14	10,123,456	10,234,567	20,358,023
15-24	8,765,432	8,876,543	17,641,975
25-34	7,654,321	7,765,432	15,419,753
35-44	6,543,210	6,654,321	13,197,531
45-54	5,432,109	5,543,210	10,975,319
55-64	4,321,098	4,432,109	8,753,207
65-74	3,210,987	3,321,098	6,532,085
75-84	2,109,876	2,210,987	4,320,863
85+	1,098,765	1,109,876	2,208,641
Total	43,210,987	43,321,098	86,532,085

Table 2. Total population, by sex and age group, 1982

Age Group	Male	Female	Total
0-14	10,234,567	10,345,678	20,580,245
15-24	8,876,543	8,987,654	17,864,197
25-34	7,765,432	7,876,543	15,641,975
35-44	6,654,321	6,765,432	13,419,753
45-54	5,543,210	5,654,321	11,197,531
55-64	4,432,109	4,543,210	8,975,319
65-74	3,321,098	3,432,109	6,753,207
75-84	2,210,987	2,321,098	4,532,085
85+	1,109,876	1,120,987	2,230,863
Total	43,321,098	43,432,109	86,753,207