CANADA

DEPARTMENT OF TRADE AND COMMERCE

DOMINION BUREAU OF STATISTICS

CENSUS OF INDUSTRY

REPORT
on the
WOOLLEN TEXTILE INDUSTRY
in
CANADA
1928

INCLUDING -

1. Woollen Cloths
2. Woollen Yarns
3. Carpets, Mats and Rugs
4. Woollen Goods, n.e.s.

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

OTTAWA

1929

NOTE.- The statistics published in the present statement include only the statistics of the principal products of such manufacturing establishments as use Wool as their principal material. Statistics relating to specific products are therefore not to be regarded as comprehensive, as these are also found as secondary products of other industries of the Hosiery and Knit goods etc., etc.

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OTTAWA - CANADA

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THE WOOLLEN TEXTILE INDUSTRY IN CANADA, 1928.

Ottawa, November, 1929. - The annual report of the Woollen Textile Industry in Canada for the calendar year 1928 is herewith presented under the four following heads:

1. Woollen Cloths.
2. Woollen Yarns.
3. Carpets, mats and rugs.
4. Woollen Goods, n.e.s.

The following table shows the location by provinces of the number of establishments in each section. Woollen cloth mills increased since last report by 1, woollen yarn mills remained stationery, carpets, mats and rugs increased by 1, and woollen textile mills, n. e. s. decreased by 4.

Provinces	Woollen cloth mills	Woollen yarn mills	Carpets mats and rugs	Woollen goods n. e. s. /	All Woollen textile mills.
CANADA	51	20	22	27	120
Nova Scotia	4	1	1	1	7
New Brunswick	2	4	1	1	8
Quebec	11	1	-	5	17
Ontario	34	12	16	19	81
Western Provinces	-	2	4	1	7

/ Woollen goods, n.e.s. includes - wool felts, wool pulled, etc., wool stock(shoddy) wool waste and noils, etc.

THE WOOLLEN TEXTILE INDUSTRY IN CANADA, 1928.

Size of Establishments

In view of the tendency towards concentration in industrial enterprise, a series of tables has been prepared presenting in a threefold way the size of establishments in each of the four sections comprising the woollen goods industry measured by (a) capital investment, (b) gross value of production and (c) the number of persons employed, all within certain specified groups or limitations for the calendar years 1927 and 1928. The tables further indicate the movement of capital production and employment within the industry.

Woollen Cloth Mills, 1928.

In 1928 the number of mills in operation were 51 with a total capital investment of $18,274,895, a gross value of production of $15,062,081 and a total employment of 3,996. Twenty-three establishments had a capital investment of $17,533,271 or 95.9 per cent of the total capitalization and an average investment per establishment of $762,316. Seventeen plants had a gross production of $13,947,640 or 92.6 per cent of the total production and an average output per establishment of $820,449. In employment 19 establishments had 3,625 persons on the payroll being an average of 191 per establishment and 90.72 per cent of the total employment.

In 1927 the number of mills in operation were 55 with a total capital investment of $20,170,185 a gross value of production of $14,318,369 and a total employment of 4,249. Twenty-seven establishments had a capital investment of $19,598,856 or 97.16 per cent of the total capitalization and an average investment per establishment of $725,884. Twenty-two plants had a gross production of $13,569,513 or 94.77 per cent of the total production and an average output per establishment of $616,796. In employment 21 establishments had 3,832 persons on the payroll being an average of 182.5 per establishment and 90.18 per cent of the total employment.

Woollen Cloth Mills, 1927-1928

Employees	1928			1927		
	Establishments	Number of Employees	Average No. of Employees per establishment.	Establishments	Number of Employees	Average No. of Employees per establishment
Under 20	26	173	6.66	24	117	4.88
20 to under 50	6	198	33.00	10	300	30.00
50 to under 100	7	474	67.71	9	638	70.89
100 to under 200	4	526	131.50	6	867	144.50
200 to under 500	7	2,036	290.86	5	1,607	321.40
500 and over	1	589	589.00	1	720	720.00
TOTAL	51	3,996	78.35	55	4,249	77.26

	Establishments	Amount	Average Capital per establishment	Establishments	Amount	Average Capital per establishment
	No.	$	$	No.	$	$
Capital invested -						
Under 50,000	23	362,047	15,741	24	291,411	12,142
50,000 to under 100,000	5	379,577	75,915	4	279,913	69,979
100,000 to under 200,000	6	883,490	147,248	7	975,533	139,362
200,000 to under 500,000	7	2,534,073	362,011	10	3,471,602	347,160
500,000 to under 1,000,000	4	2,844,980	711,245	4	2,703,788	675,947
1,000,000 and over	6	11,270,723	1878,454	6	12,447,933	2074,655
TOTAL	51	18,274,895	358,331	55	20,170,185	366,731

	Establishments	Amount	Average Production per establishment.	Establishments	Amount	Average Production per establishment.
	No.	$	$	No.	$	$
Production						
Under 50,000	26	271,092	10,427	28	355,344	12,691
50,000 to under 100,000	4	285,497	71,374	5	393,512	78,702
100,000 to under 200,000	4	557,852	139,463	7	1,058,010	151,144
200,000 to under 500,000	7	1,853,407	264,772	5	1,394,103	278,821
500,000 to under 1,000,000	5	3,573,431	714,686	6	4,611,275	768,546
1,000,000 and over	5	8,520,802	1,704,160	4	6,506,120	1,626,530
TOTAL	51	15,062,081	295,335	55	14,318,369	260,334

THE WOOLLEN TEXTILE INDUSTRY IN CANADA, 1928.

A summary table showing the principal statistics of each of the four sections comprising the woollen textile industry and a total for all sections is presented herewith for the calendar year 1928 for the Dominion as a whole.

Summary of Woollen Textile Industry,
by Sections - 1928.

Principal Statistics		Woollen cloths	Woollen yarns	Carpets, mats and Rugs	Woollen goods n. e. s.	Total Woollen Textile Industries
Establishments	No.	51	20	22	27	120
Capital invested	$	18,274,895	8,810,695	6,072,610	8,375,122	41,533,322
Employees on salaries-						
Male	No.	224	50	174	85	533
Female	No.	42	27	42	26	137
Salaries	$	600,201	181,236	442,277	329,768	1,553,482
Employees on wages- Average of -						
Male	No.	1,935	767	559	715	3,976
Female	No.	1,795	1,045	362	399	3,601
Wages	$	3,163,737	1,235,064	854,527	877,269	6,130,597
Outside piece-workers-						
Male	No.	38	-	-	-	38
Female	No.	11	-	-	-	11
Amount paid	$	17,811	-	-	-	17,811
Cost of fuel and electricity	$	369,994	131,160	80,204	113,681	695,039
Power employed -						
Units	No.	868	217	275	276	1,636
Capacity	H.P.	11,063	3,908	2,267	4,094	21,332
Cost of materials	$	9,270,861	4,789,168	2,370,903	3,494,918	19,925,850
Value of Products	$	15,062,081	7,706,740	5,009,240	6,909,229	34,687,290
Value added by manufacture	$	5,791,220	2,917,572	2,638,337	3,414,311	14,761,440

Compared with 1927 there was an increase of 6 in the number of establishments reporting, an increase of 54 in the number of male employees on salaries, an increase of 19 in the number of females on salaries, an increase of 30 in the number of males employed on wages, an increase of 186 in the number of females employed on wages, of $117,534 in the payments to salaried employees, of $438,271 in the amount paid to wage-earners, an increase in the cost of materials of $2,846,222, and in value of products of $3,474,448. Decreases appear in the cost of fuel amounting to $12,844, in horsepower capacity of 82 and in capital investment of $499,542.

SECTION I. - WOOLLEN CLOTH MILLS

Principal Statistics compared for Canada and the Provinces in 1927 and 1928.

A comparison by provinces of the principal statistics in woollen cloth mills for the calendar years 1927 and 1928 is offered in Table 1. The number of mills reporting increased during the period by 4, while the gross value of products increased by $743,712. In order that disclosure of information of individual establishments may be avoided the statistics of Nova Scotia and New Brunswick have been combined throughout this report.

Table 1. - Principal Statistics of Woollen Cloth Mills, by Provinces, 1928.

Principal Statistics		CANADA	Ontario	Quebec	Nova Scotia and New Brunswick.
Establishments	No.	51	34	11	6
Capital invested	$	18,274,895	15,005,679	2,663,940	605,276
Employees on salaries					
Male	No.	224	181	24	19
Female	No.	42	37	2	3
Salaries	$	600,201	520,902	54,195	25,104
Employees on wages(avge. No.)					
Male	No.	1,935	1,571	287	77
Female	No.	1,795	1,434	288	73
Wages paid	$	3,163,737	2,642,086	444,188	77,463
Cost of fuel and electricity	$	369,994	280,731	76,199	13,064
Power employed -					
Units	No.	868	784	73	11
Capacity	H.P.	11,063	8,799	1,752	512
Cost of materials	$	9,270,861	7,872,092	1,191,477	207,292
Value of Products	$	15,062,081	12,580,985	2,117,782	363,314
Value added by manufacture	$	5,791,220	4,708,893	926,305	156,022

Principal Statistics of Woollen Cloth Mills, by Provinces, 1927

Principal Statistics		CANADA	Ontario	Quebec	Nova Scotia and New Brunswick
Establishments	No.	55	40	10	5
Capital invested	$	20,170,185	16,923,478	2,605,153	641,554
Employees on salaries -					
Male	No.	234	195	20	19
Female	No.	50	42	3	5
Salaries	$	612,880	542,432	45,202	25,246
Employees on wages (avge. No.) -					
Male	No.	2,087	1,744	258	85
Female	No.	1,886	1,523	282	81
Wages	$	3,093,773	2,563,751	431,039	98,983
Cost of fuel and electricity	$	376,611	290,950	71,115	14,546
Power employed -					
Units	No.	732	652	71	9
Capacity	H.P.	11,850	9,669	1,702	479
Cost of materials	$	7,991,590	6,738,7[illegible]	1,031,372	221,467
Value of products	$	14,318,369	12,073,192	1,827,119	418,058
Value added by manufacture	$	6,326,779	5,334,441	795,747	196,591

SECTION I. - WOOLLEN CLOTH MILLS.

PRODUCTION.

The production in woollen cloth mills in 1928 is shown for the Dominion in Table 2. There was an increase in value of production of $743,712 as compared with the Previous year. The provinces of Ontario contributed 83.53 per cent of the total value of production, amounting to $12,580,985; Quebec contributed $2,117,782 or 14.06 per cent and the Maritime Provinces $363,314 or 2.41 per cent.

Table 2. - Production in Woollen Cloth Mills of Canada, 1928

Classes of Products	All Wool		Union Goods Cotton Mixed	Goods Woven on Cotton Warp		Selling Value at Factory
	Woollen	Worsted		Woollen	Worsted	
	Yds.	Yds.	Yds.	Yds.	Yds.	$
Woollen and Worsted Goods -						
Suitings, Dress Goods, Overcoatings and Cloakings	4,201,609	1,822,915	138,284	882,704	61,892	8,518,038
Flannels for underwear	5,892	-	242,361	126,453	-	121,533
Blankets, all wool value only						669,275
Blankets, cotton mixed, value only						131,707
Auto cloths						-
Carriage cloths and robes						512,855
Horse blankets						120,859
Shawls						30,179
Sweaters, cardigan jackets, etc.						465,318
Fancy knit goods						122,458
Mackinaw cloths						745,628
Velours and plushes						1,500,000
Wool and cotton felts for pulp and paper-making						71,894
Woollen yarns						731,773
Worsted yarns						1,063,159
Cotton yarns						56,389
Hosiery						32,231
All other products						71,816
Custom work						96,969
Total value of products						15,062,081

SECTION I. - WOOLLEN CLOTH MILLS.

Capital Investment.

The amount of capital invested in the woollen cloth section of the industry in 1928 is shown in Table 3 under two heads:- fixed capital which includes land, buildings and fixtures and machinery and tools, and working capital including materials and stocks on hand, finished products, fuel and miscellaneous supplies and cash, trading and operating accounts, etc. Ontario provided 82.1 per cent of the total investment, Quebec 14.6 per cent and the Maritime Provinces 3.3 per cent. Fixed capital decreased by $924,532 over 1927, while working capital, more variable in character, decreased by $970,758, making a total decrease of $1,895,290.

Table 3. - Capital Invested by Provinces, 1928.

Provinces	Fixed Capital	Working Capital		Total Capital
	Land, buildings, etc. machinery and tools	Materials and supplies and finished products on hand	Cash, trading and operating accounts, etc.	
	$	$	$	$
CANADA	10,545,563	5,745,023	1,984,309	18,274,895
Nova Scotia and New Brunswick	359,637	184,458	61,181	605,276
Quebec	1,705,379	644,652	313,909	2,663,940
Ontario	8,480,547	4,915,913	1,609,219	15,005,679

Employment Statistics

Statistics of employment are presented in the following series of tables:-

4. Employees by number, sex and remuneration, by provinces.
5. Employment by months, by numbers and sex.
6. Working time of plants and employees.

The number of persons employed, male and female, is shown by classes, sex and remuneration in Table 4. Total employment fell from 4,257 persons of both sexes in 1927 to 4,045 in 1928, whilst the total of salaries, wages, etc. rose from $3,706,653 in 1927 to $3,781,749 in 1928, being a decrease of 212 in the number employed, but an increase of $75,096 in the total payroll.

The average number of wage earners employed in any industry is calculated on the actual number of months the mills were in operation and not on a basis of 12 calendar months.

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

Employees by number and sex		CANADA	Ontario	Quebec	Maritime Provinces
Salaried employees -					
Male	No.	224	181	24	19
Female	No.	42	37	2	3
Total Salaries	$	600,201	520,902	54,195	25,104
Wage-earning employees-					
Male	No.	1,935	1,571	287	77
Female	No.	1,795	1,434	288	73
Total wages	$	3,163,737	2,642,086	444,188	77,463
Outside piece-workers-					
Male	No.	38	-	38	-
Female	No.	11	4	7	-
Amount paid	$	17,811	55	17,756	-
Total, all employees -					
Male	No.	2,197	1,752	349	96
Female	No.	1,848	1,475	297	76
Salaries and Wages	$	3,781,749	3,163,043	516,139	102,567

SECTION I. - WOOLLEN CLOTH MILLS

Employment Statistics - Contd.

Statistics of employment by months, as per payroll, in the woollen cloth mills of Canada are shown in Table 5, for the calendar year 1928. The maximum of employment was attained in the month of August, with a total of 3,867 of both sexes, whilst the month of minimum employment was that of December with a total of 3,328. The average monthly employment for the year was 3,730 of whom 1,935 were males and 1,795 were females.

Table 5. - Employment by Months as per payroll, 1928.

Month	Male No.	Female No.	Month	Male No.	Female No.
January	1,878	1,720	July	1,920	1,749
February	1,899	1,767	August	1,988	1,879
March	1,842	1,759	September	1,965	1,867
April	1,962	1,812	October	1,982	1,812
May	1,970	1,773	November	1,971	1,851
June	1,855	1,723	December	1,715	1,613
			Total employment by months	22,947	21,325
			Average monthly employment for the year	1,935	1,795

The operating time of plants and employees in the Dominion is shown in Table 6. Plant operation on full and part time shows a loss per plant of 4.02 days as compared with 1927. The hours of labour by employees show an increase from 9.38 hours per day in 1927 to 9.49 in 1928, whilst weekly hours also rose from the average of 52.2 in 1927 to 52.88 in 1928.

Table 6. - Working time of plants and employees, 1928.

Number of establishments reporting	51	
	Totals	Averages
Days plants were in operation		
On full time	11,279	221.16
On part time	884	17.33
Idle	3,341	65.51
Hours worked by wage-earners		
Per day or shift	484	9.49
Per week	2,697	52.88

Table 7 presents statistics of wage-earning employees in month of highest employment working specified hours per day for Canada and the provinces with percentages of persons working at each specified daily rate. From the table following it will be noted that the prevailing daily rate was that of the groups of wage-earners working 9 and 10 hours per day, the percentages being 69.25 and 29.45. The 9 hour day prevailed in Ontario and the 10 hour day in Nova Scotia, New Brunswick and Quebec. Less than 1 per cent worked during the 8 hour period or in the over 10 hour period.

Table 7. Hours worked per day by wage-earners in month of highest employment for Canada and the provinces, 1928.

	Number of 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
CANADA	30	2,918	1,241	25	.71	69.25	29.45	.59
Nova Scotia	-	19	31	-	-	38.00	62.00	-
New Brunswick	-	-	108	-	-	-	100.00	-
Quebec	-	9	655	-	-	1.36	98.64	-
Ontario	30	2,890	447	25	.88	85.20	13.18	.74

SECTION I. - WOOLLEN CLOTH MILLS

Employment Statistics -Contd.

Table 7(a) shows the hours of labour per day and per week for Canada and the provinces. The statistics relating to hours of labour in columns 1, 2 and 3 are compiled from the number of employees working specified hours per day in the month of highest employment whilst those in columns 4 and 5 represent the standard weekly hours of labour in the industry as reported to the Bureau by each individual establishment .

The average daily hours of labour computed on the above basis for the Dominion was 9.30 hours per day and 52.88 hours per week.

Table 7(a). - Hours of Labour per day and per week, for Canada and the Provinces, 1928.

Provinces	Total 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 hours	Average hours per wage-earner per week
CANADA	39,174	4,214	9.30	2,697	52.88
Nova Scotia	481	50	9.62	209	52.25
New Brunswick	1,080	108	10.00	110	55.00
Quebec	6,631	664	9.99	609	55.36
Ontario	30,982	3,392	9.14	1,769	52.03

Fuel Consumption

The consumption of fuel by this section of the woollen textile industry is shown by classes, quantity and cost value delivered at the mill in Table 8. The principal fuel used was bituminous coal which rose from 41,279 tons in 1927 to 42,213 tons in 1928. The average price of bituminous coal of all grades was $6.72 in 1927, as against $6.45 in 1928. Electricity purchased amounted to $90,329 in 1928 as compared with an outlay of $87,491 in 1927.

Table 8. - Fuel Consumption by classes, quantity and value, 1928.

Classes of fuel	Unit of Measure	Quantity	Cost Value delivered at Mill.
Bituminous coal	ton	42,213	272,333
Anthracite coal	"	28	358
Gasoline	gallon	1,356	354
Wood	cord	1,197	4,746
Coke	ton	28	210
All other fuel	-	-	1,664
Cost of Fuel	-	-	279,665
Cost of Electricity	-	-	90,329
Total Cost of Fuel and Electricity	-	-	369,994

SECTION I. - WOOLLEN CLOTH MILLS

Power Installation.

Power installation in the woollen cloth mills of the Dominion is shown 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 for the calendar year 1928. Electric motors were still the principal power used, having increased by 138 units, but with a lesser aggregate of 636 horse power than in 1927. Boilers installed for any purpose numbered 67 with a boiler horse power capacity of 7,204.

Table 9. - Power Installation, 1928.

Classes of Power	Number of units	H.P. according to manufacturers' rating.
Steam engines and turbines	15	2,211
Oil, gas and gasoline engines	3	33
Hydraulic turbines or water wheels	30	1,862
Electric motors operated by purchased power	820	6,957
Total power used in manufacturing	868	11,063
Electric motors operated by owned power	6	550
Total electric motors	826	7,507

Materials Used.

The quantity and the cost value at the factory or mill of the principal materials used in this section during the year are shown in Table 10. The total cost in 1928 was $9,270,861 or $1,279,291 more than the preceding year. Wool constituted 40.15 per cent of the total cost of materials, yarns purchased of all kinds, 25.82 per cent and all other materials 34.03 per cent.

Table 10. - Materials used by Principal Classes, 1928.

Classes of Materials	Unit of Measure	Quantity	Cost Value at Mill or Factory.
			$
Domestic wools:-			
Fleece or greasy wools	Pounds	2,374,378	761,565
Scoured, pulled and washed wools	"	583,800	231,931
Foreign wools:-			
Fleece or greasy wools	"	3,745,555	1,422,345
Scoured, pulled and washed wools	"	2,322,276	1,306,267
Mohair	"	210,650	270,227
Other animal hair	"	8,515	8,651
Cotton, raw	"	526,639	107,670
Silk, raw	"	922	2,765
Rags, clippings, etc.	"	1,454,855	185,629
Noils of wool	"	194,431	115,668
Tops of wool	"	1,529,609	1,079,128
Wool waste	"	1,536,342	307,204
Shoddy	"	908,656	238,898
Artificial silk tops and waste	"	88,430	18,574
Silk waste	"	13,481	6,683
Yarns of all kinds:-			
Artificial silk	"	3,264	5,506
Cotton	"	976,374	417,454
Cotton, mercerized	"	400	467
Silk and Silk mixed	"	14,470	73,892
Woollen	"	12,000	15,000
Worsted	"	1,515,753	1,878,620
Merino	"	2,430	2,575
All other materials	-	-	643,843
Chemicals, dyestuffs, etc.	-	-	143,071
Commission dyeing	-	-	27,228
Total Cost of Materials	-		9,270,861

SECTION I. - WOOLLEN CLOTH MILLS

Equipment in Woollen Cloth Mills.

The equipment installed in the mills operating in 1928 consisted of 239 sets of cards of specified widths, the number at each width being indicated below:-

Under 40 inches	40 inches	44 inches	48 inches	54 inches	56 inches	60 inches	66 inches	72 inches & over	Total
13	30	4	78	10	2	78	5	19	239

The number of cylinders to each set of cards is set forth below:-

1 Cylinder	2 Cylinders	3 Cylinders	4 Cylinders	5 Cylinders	6 Cylinders	7 Cylinders	Total
25	3	145	44	16	6	-	239

The number of spindles and looms operating in 1928 is summarized in the following tabular statement.

Spindles and looms	Woollen No.	Worsted No.	Shoddy No.	Total No.
Mule spinning spindles	74,154	-	1,300	75,454
Frame spinning spindles	687	16,600	2,040	18,727
Doubling and twisting spindles	3,327	6,512	400	10,239
Broad looms (50" reed space or over)	916	356	-	1,272
Narrow looms (under 50" read space)	182	10	(Cotton (118	310
Hand looms	4	-	-	4

Other Equipment	Number
Wool combing machines	19
Pickers	56
Garnet machines	9

SECTION I. - WOOLLEN CLOTH MILLS

The quantity and value of the imports of wool and its manufactures are presented in Table 11, by principal countries for the calendar year 1928. The total value of all imports imported for consumption during the year amounted to $52,812,404 of which raw materials represented $13,899,960, partly manufactured goods $5,534,932 and finished products $33,377,512.

Table 11. Imports of Wool and its Manufactures by Principal Countries, 1928.

Articles		Quantity	Value
Raw Materials -			$
Wool in the grease-			
United Kingdom	lb.	332,535	147,246
United States		1,174,689	385,163
Australia		55,134	26,878
New Zealand		490,106	170,030
Other Countries		102,693	33,535
TOTAL		2,155,157	762,852
Wool, washed or scoured -			
United Kingdom		2,963,807	1,493,385
United States		1,522,022	639,201
Australia		44,951	28,904
British South Africa		134,205	54,886
New Zealand		921,899	333,866
Other Countries		190,789	97,543
TOTAL		5,777,673	2,647,785
Wool, pulled or Sliped -			
United Kingdom	lb.	659,074	263,550
United States		125,395	50,225
New Zealand		194,393	53,124
Other Countries		-	-
TOTAL		978,862	366,899
Wool and the hair of the camel, etc. n.o.p. -			
United Kingdom	lb.	2,459,741	1,079,806
United States		1,204,270	365,079
Argentina		105,004	43,613
Australia		115,147	75,616
British South Africa		40,697	27,106
France		44,191	34,138
New Zealand		934,087	295,770
Other Countries		12,197	7,044
TOTAL		4,915,334	1,928,172
Hair of the camel, alpaca, etc. not further prepared than combed -			
United Kingdom	lb.	70,056	33,116
United States		307,202	47,763
Australia		600	210
New Zealand		26,529	9,212
Other Countries		39,741	1,524
TOTAL		444,128	91,825
Noils -			
United Kingdom	lb.	462,725	223,596
United States		50,079	32,209
Other Countries		560	406
TOTAL		513,364	256,211
Worsted Tops -			
United Kingdom	lb.	6,843,025	4,590,393
United States		440,669	249,915
Other Countries		385,260	443,105
TOTAL		7,668,954	5,283,913

SECTION I. - WOOLLEN CLOTH MILLS.

Table 11. - Imports of Wool and its Manufactures by Principal Countries, 1928 (Cont'd.)

Articles		Quantity	Value
			$
Raw materials (Cont'd.)			
Garnetted wool waste in the white, etc. -	lb.		
United Kingdom		84,665	39,087
United States		11,499	6,063
TOTAL		96,164	45,150
Rags, waste, etc. -	cwt.		
United Kingdom		153,403	453,123
United States		331,523	1,687,517
Netherlands		12,810	97,954
Japan		10,113	59,042
Other Countries		44,409	219,517
TOTAL		552,258	2,517,153
Partly manufactured materials -		4,925,877	5,534,932
Yarns composed wholly or in part of wool, etc., not containing silk, etc.(9 mos.)	lb.		
United Kingdom		115,545	170,165
United States		1,540	1,532
Other Countries		4,395	6,546
TOTAL		121,480	178,243
Yarns and warps composed wholly or in part of wool, etc., imported by manufacturers, etc.(9 mos.) -	lb.		
United Kingdom		1,056,102	818,243
United States		261	403
Other Countries		9,154	15,892
TOTAL		1,065,517	834,538
Yarns and warps composed wholly or in part of wool, etc., imported for the weaving of woollen and worsted fabrics, but not including carpets or rugs (9mos.)	lb.		
United Kingdom		1,300,477	1,574,162
United States		-	-
France		48,930	50,861
Other Countries		213	156
TOTAL		1,349,620	1,625,179
Yarns composed wholly or in chief value of merino wool, but not containing silk, etc. (9 mos.) -	lb.		
United Kingdom		1,196,873	1,598,732
Belgium		10,890	18,631
France		16,720	21,572
TOTAL		1,224,483	1,638,935
Wool yarns of all kinds (3 mos.) -	lb.		
United Kingdom		1,106,496	1,180,760
United States		847	987
Other Countries		57,434	76,290
TOTAL		1,164,777	1,258,037
Wholly manufactured products -			
Woven fabrics composed wholly or in chief part by weight of wool, etc., imported in the gray or unfinished condition for the purpose of being dyed or finished in Canada -	yd.		
United Kingdom		2,386,620	932,449
Belgium		161,033	62,466
France		1,270,300	541,539
Other Countries		5,454	2,566
TOTAL		3,823,407	1,539,020

SECTION I. - WOLLEN CLOTH MILLS.

Table 11. - Imports of Wool and its Manufactures by Principal Countries 1928 (Cont'd.)

Articles		Quantity	Value
			$
Wholly manufactured products (Cont'd.)			
Woven fabrics, consisting of cotton warps with wefts of lustre wool, etc. -	yd.		
United Kingdom		862,508	496,611
United States		6,372	2,229
Other Countries		2,175	1,136
TOTAL		871,055	499,976
Flannels, not exceeding in weight 5 oz. to the square yard -	yd.		
United Kingdom		129,488	56,458
United States		7,204	2,251
France		69,997	29,806
Other Countries		2,725	2,053
TOTAL		209,414	90,568
Woven fabrics composed wholly or in part of wool, etc. not exceeding in weight 5 oz. to the sq.yd. -	yd.		
United Kingdom		379,683	182,451
United States		8,861	9,[illegible]
France		401,613	247,569
Other Countries		60,826	39,838
TOTAL		850,983	479,067
Knitted fabrics composed wholly or in part of wool, etc. not exceeding in weight 5 oz. to the square yard -	yd.		
United Kingdom		38,650	20,146
United States		130	152
Other Countries		6,624	5,331
TOTAL		45,404	25,629
Felt cloth, n.o.p. -			
United Kingdom		275	1,268
United States		16,962	15,966
Belgium		10,601	9,764
Other Countries		1,597	2,195
TOTAL		29,435	29,193
Overcoatings -			
United Kingdom		380,726	464,846
United States		1,451	1,916
France		10,357	25,766
Other Countries		14,334	30,977
TOTAL		406,868	523,505
Tweeds -			
United Kingdom		3,702,385	3,495,216
United States		26,987	34,511
France		175,110	261,469
Germany		136,989	152,439
Czecho-Slovakia		22,356	30,466
Netherlands		10,092	19,667
Other Countries		37,549	36,362
TOTAL		4,111,468	4,030,130
Worsted and serves including coatings -	yd.		
United Kingdom		8,629,980	11,133,353
United States		39,722	62,345
France		1,321,801	1,696,949
Germany		427,375	519,780
Czecho-Slovakia		28,054	42,133
Italy		76,607	53,629
Netherlands		44,148	105,146
Switzerland		17,837	24,841
Other Countries		61,090	70,071
TOTAL		10,646,614	13,708,247

SECTION I. - WOOLLEN CLOTH MILLS.

Table 11. - Imports of Wool and its Manufactures by Principal Countries 1928 (Cont'd).

Articles		Quantity	Value
			$
Wholly manufactured products (Cont'd.)			
Woven fabrics composed wholly or in part of wool, etc. n.o.p. -	yd.		
United Kingdom		2,234,091	1,823,992
United States		240,225	246,112
France		457,393	534,371
Other Countries		278,638	311,066
TOTAL		3,210,347	2,915,541
Knitted fabrics composed wholly or part of wool, etc. n.o.p. -	yd.		
United Kingdom		20,153	20,667
United States		13,774	23,260
Other Countries		9,315	13,365
TOTAL		43,242	57,292
Women or braided fabrics, not exceeding 12" in width whether with cut pile or not composed wholly or in part wool, etc. -	yd.		
United Kingdom		-	21,989
United States		-	1,786
Other Countries		--	2,950
TOTAL		-	26,725
Woven fabrics with cut piles or wholly or in part of wool etc., n.o.p. -	yd.		
United Kingdom		389,620	772,690
United States		17,444	34,398
Germany		37,909	64,168
Other Countries		12,645	14,324
TOTAL		457,618	885,580
Shawls, wool -	yd.		
United Kingdom		-	48,241
United States		-	3,941
Other Countries		-	7,175
TOTAL		-	59,357
Shirts, wool -	doz.		
United Kingdom		290	5,509
United States		24	564
TOTAL		314	6,073
Socks and Stockings, wool 1/ -	doz.pr.		
United Kingdom		81,714	358,943
United States		5,377	13,311
Other Countries		387	3,876
TOTAL		87,478	376,130
Socks and stockings, wholly or in part of wool, but not containing silk or artificial silk valued at more than $1.50 per lb. 2/ -			
United Kingdom		333,316	1,499,835
United States		5,456	18,633
Other Countries		2,633	18,564
TOTAL		341,405	1,537,032
Socks and stockings wholly or in part of wool, etc., but not containing silk, etc. valued at more than 90¢ per lb. but not exceeding $1.50 per lb. 2/			
United Kingdom		73,941	245,794
United States		2,602	5,482
Other Countries		231	1,161
TOTAL		76,774	252,437

SECTION I. - WOOLLEN CLOTH MILLS.

Table 11. - Imports of Wool and Its Manufactures by Principal Countries, 1928 (Cont'd.)

Articles		Quantity	Value
			$
Wholly manufactured products (Cont'd.)			
Socks and stockings wholly or part of wool, etc., but not containing silk, etc. n.o.p.	doz.pr.		
United Kingdom		25,391	57,123
United States		22,007	4,174
Other Countries		227	977
TOTAL		27,625	62,274
Undershirts and drawers, n.o.p.			
United Kingdom		-	16,207
United States		-	13,175
Other Countries		-	2,369
TOTAL		-	21,751
Underwear, knitted wool valued at 90¢ per lb. or less			
United Kingdom		-	1,899
United States		-	2,738
Other Countries		-	215
TOTAL		-	4,852
Underwear, knitted wool valued at more than 90¢ per lb.			
United Kingdom		-	407,795
United States		-	8,710
Other Countries		-	9,742
TOTAL		-	426,247
Knitted goods of wool, n.o.p.			
United Kingdom		-	158,081
United States			26,169
Belgium		-	2,015
France		-	29,813
Other Countries		-	24,064
TOTAL		-	240,142
Clothing, women's and children's outer garments, wool			
United Kingdom		-	205,097
United States		-	229,487
France		-	75,509
Other Countries		-	49,936
TOTAL		-	560,029
Clothing and wearing apparel, n.o.p. composed wholly or in part of wool			
United Kingdom		-	1,515,127
United States		-	274,550
France		-	55,993
Germany		-	12,988
Other Countries		-	44,411
TOTAL		-	1,903,069

SECTION I. - WOOLLEN CLOTH MILLS.

Table 11. - Imports of Wool and Its Manufactures by Principal Countries, 1928 (Con.)

Articles		Quantity	Value
Wholly manufactured products (Con.)			$
Blankets, household, n.o.p. not to include horse blankets, etc.	lb.		
United Kingdom		184,031	819,205
United States		23,589	55,557
Other Countries		15,439	23,870
TOTAL		223,059	898,632
Felt, pressed, of all kinds in the web, etc.			
United Kingdom		83,961	35,340
United States		178,248	78,641
Czecho-Slovakia		123,660	58,472
Germany		83,371	73,699
Other Countries		19,499	11,896
TOTAL		488,739	258,048
Rugs, railway, steamer, lounge, automobile, etc.			
United Kingdom		-	130,785
United States		-	16,593
Other Countries		-	5,325
TOTAL		-	152,703
Articles made from woven fabrics, etc. wholly or in part of wool, etc.			
United Kingdom		-	1,016,149
United States		-	307,170
France		-	326,048
Germany		-	70,066
Switzerland		-	31,272
Other Countries		-	57,558
TOTAL		-	1,808,263

SECTION I. - WOOLLEN CLOTH MILLS.

Exports of Wool and Its Products - 1928.

The exports of Canadian wool and manufactures for the calendar year 1928 are shown in Table 12. The total value of exports during 1928 was $3,420,481, as compared with $3,453,453 in 1927, a decrease of 32,972. Of the total value of Canadian produce exported 80.1 per cent went to the United States, 8.4 per cent to the United Kingdom and 11.5 per cent to Other Countries.

Table 12. - Exports of Canadian Produce by Principal Countries, Calendar Year, 1928.

Articles and Countries		Quantity	Value
			$
Wool raw -	lb.		
United Kingdom		197,593	70,959
United States		1,247,992	453,383
Other Countries		155	55
T O T A L		1,445,740	524,397
Wool in the grease -			
United Kingdom		623,320	202,911
United States		5,856,081	2,074,576
Other Countries		144,248	51,961
T O T A L		6,623,649	2,329,448
Wool, scoured or washed -			
United Kingdom		160	70
United States		165,654	59,129
Other Countries		940	285
T O T A L		166,754	59,484
Wool, pulled or Sliped -			
United Kingdom		5,053	2,322
United States		105,864	55,619
Other Countries		3,795	2,163
T O T A L		114,712	60,104
Wool Carpets -			
United Kingdom		-	5,118
United States		-	7,146
New Zealand		-	58,468
Other Countries		-	12,100
T O T A L		-	82,832
Wool Fabrics -			
United Kingdom	Yd.	70	133
United States		563	977
Newfoundland		12,202	15,267
Other Countries		1,548	2,331
T O T A L		14,383	18,708

SECTION I. - WOOLLEN CLOTH MILLS.

Table 12. - Exports of Canadian Produce by Principal Countries, Calendar Year, 1928.

Articles and Countries	Quantity	Value
		$
Wool underwear -		
United Kingdom	-	-
United States	-	2,512
Newfoundland	-	32,046
Other Countries	-	2,419
T O T A L	-	36,977
Wool clothing, n.o.p. -		
United Kingdom	-	2,938
United States	-	33,717
Newfoundland	-	121,362
St. Pierre and Miquelon	-	27,511
Other Countries	-	54,052
T O T A L	-	239,580
Wool manufactures, n.o.p. -		
United Kingdom	-	3,150
United States	-	52,987
Other Countries	-	12,814
T O T A L	-	68,951
Summary of Exports by Classes -		
Raw Materials	-	2,973,433
Manufactured goods	-	447,048
T O T A L	-	3,420,481
Summary of Exports by Principal Countries		
United Kingdom	-	287,601
United States	-	2,740,046
Newfoundland	-	168,675
New Zealand	-	58,468
Other Countries	-	165,691
T O T A L	-	3,420,481

SECTION II. - Woollen Yarns

Statistics of the woollen yarn industry in Canada for the calendar year 1928 form the subject matter of the second section of the Woollen Textile Industry. Table 1 presents the principal Statistics of this section comparatively for the calendar years 1926, 1927 and 1928.

Table 1. - Principal Statistics of the Woollen Yarn Industry, 1926 - 1928.

Principal Statistics		1926	1927	1928
Establishments reporting	No.	17	17	[illegible]
Capital invested	$	8,417,695	9,761,057	8,810,695
Employees on salaries -				
Male	No.	40	44	50
Female	"	20	20	27
Salaries	$	161,467	173,311	181,236
Employees on wages, average -				
Male	No.	653	714	767
Female	"	723	870	1,045
Wages	$	983,104	1,117,048	1,235,064
Power installed -				
Units	No.	184	198	217
Capacity	H.P.	3,102	3,240	3,908
Cost of fuel	$	136,290	99,621	77,469
Cost of electricity	$	40,891	47,621	53,691
Cost of materials	$	4,062,118	4,455,941	4,789,168
Value of products	$	7,006,877	6,944,765	7,706,740
Value added by manufacture	$	2,944,759	2,488,824	2,917,572

Production Statistics

The quantity and selling value at the mill or factory of the various yarns and other products manufactured in this section of the industry are shown in Table 2 for the Dominion. The value of production rose from $6,944,765 in 1927 to $7,706,740 in 1928, or an increase of 9.9 per cent. The province of Ontario alone accounted for 84.5 per cent of the total production in the Dominion.

Table 2. - Production of Woollen Yarns, etc. 1928.

Articles produced	Unit of Measure	Quantity	Selling Value at mill or Factory.
			$
Woollen yarns	pound	3,223,096	1,375,464
Worsted yarns	"	4,224,224	4,916,462
Cotton yarns	"	19,592	7,468
Wool waste and noils	"	70,311	13,588
Wool felts for pulp and paper making	"	106,757	177,779
Carpets, velvet, etc. cut pile	lineal yd.	174,930	577,404
Carpets, tapestry, Brussels, etc.	" "	148,652	179,114
Blankets	-	-	168,491
All other products (value only	-	-	199,977
Received for custom work	-	-	90,993
Total value of products	-	-	7,706,740

Size of Establishments

Woollen Yarns - 1928.

In 1928 the number of factories in operation was 20 with a total capitalization of $8,810,695, - gross value of production amounting to $7,706,740 and a total employment of 1,889. Six establishments had a total capital investment of $7,470,570 or 84.8 per cent of the total capitalization or an average investment of $1,245,095 per establishment. Five firms reported a total production of $6,098,654 or 79.1 per cent of the total gross value of production and average output of $1,219,731 per establishment. In employment 7 establishments had 1,576 persons, being an average of 225 per factory or 83.4 per cent of the total employment.

In 1927 the number of factories in operation was 17 with a total capitalization of $9,761,057, - a gross value of production amounting to $6,944,765 and a total employment of 1,649. Six establishments had a total capital investment of $8,823,687 or 90.4 per cent of the total capitalization and an average investment of $1,470,614 per establishment. Five firms reported a total production of $5,428,911 or 78.2 per cent of the total gross value of production and an average output of $1,085,782 per establishment. In employment 7 establishments had 1,475 persons on their pay rolls being an average of 210 per factory or 90 per cent of the total employment.

Woollen Yarns

	1928			1927		
	Establishments No.	Number of Employees	Average No. of Employees per Establishment.	Establishments No.	Number of Employees	Average No. of Employees per Establishment.
Employees						
Under 20	8	38	4.75	7	45	6.43
20 to under 50.	3	105	35.00	2	65	32.50
50 to under 100	2	170	85.00	1	63	63.00
100 to under 200	4	502	125.50	4	492	123.00
200 to under 500	3	1,074	358.00	3	983	327.67
500 and over	-	-	-	-	-	-
TOTAL	20	1,889	94.45	17	1.648	96.94

	Establishments	Capitalization	Average Capital per establishment	Establishments	Capitalization	Average Capital per establishment
Capital Invested	No.	$	$	No.	$	$
Under 50,000	8	133,532	16.691	7	84,32[illegible]	[illegible]
50,000 to under 100,000	1	69,632	69.632	2	194,808	97,404
100,000 to under 200,000	1	124,663	124.663	-	-	-
200,000 to under 500,000	4	1,012,298	253.074	2	658,238	329.119
500,000 to under 1,000,000	2	1,686,669	843.335	1	768,666	768.666
1,000,000 and over	4	5,783,901	1,445.975	5	8,055.021	1,611.004
TOTAL	20	8,810,695	440.585	17	9,761.057	574.180

	Establishments	Production	Average Production per establishment	Establishments	Production	Average Production per establishment
Production	No.	$	$	No.	$	$
Under 50,000	9	67,991	7.554	7	72,197	10.314
50,000 to under 100,000	1	75,993	75.993	-	-	-
100,000 to under 200,000	2	315,995	157.998	2	300,689	150.345
200,000 to under 500,000	3	1,148,107	382.702	3	1,142,968	380.989
500,000 to under 1,000,000	2	1,279.102	639.551	2	1,186.946	593.473
1,000,000 and over	3	4,819,552	1,606.517	3	4,241,965	1,413.988
TOTAL	20	7,706,740	385.337	17	6,944,765	408.516

Capital Investment

The amount of capital invested in the woollen yarn industry in 1928 is shown by items and provinces in Table 3. Fixed capital comprising land, buildings, machinery and tools, which in 1927 amounted to $4,653,168, increased during the year by $151,969 whilst working capital comprising materials, stocks and supplies on hand and cash, trading and operating accounts decreased by $1,102,331. Total capital, therefore, shows a decrease from 1927 of $950,362. Ontario provided 84.4 per cent of the total capital, Quebec 11.5 per cent, the Maritime provinces .78 per cent and the Western provinces 3.32 per cent.

Table 3. - Capital invested in Woollen Yarn Mills, by Provinces, 1928

Provinces	Fixed Capital	Working Capital		Total Capital
	Land, buildings etc. machinery and tools	Materials and stocks on hand, miscellaneous supplies, etc.	Cash, trading and operating accounts, etc.	
	$	$	$	$
Maritime Provinces and Quebec	655,261	274,329	150,802	1,080,392
Ontario	3,909,577	1,797,252	1,731,073	7,437,902
Manitoba and British Columbia	240,299	47,297	4,805	292,401
CANADA	4,805,137	2,118,878	1,886,680	8,810,695

Employment Statistics

The statistics relating to employment in the woollen yarn mills are presented in the following series of tables, for the calendar year 1928.

Table 4. - Employees by classes, number and remuneration by provinces.
Table 5. - Employees on wages, by months and sex.
Table 6. - Working time of plants and employees.

The number of persons at employment, whether on salaries or wages, is shown by sex and remuneration, for Canada and the provinces in Table 4. The province of Ontario furnished 62.9 per cent of the male employees, 91.2 per cent of the females and expended in salaries and wages, etc. 81.2 per cent of the total for the Dominion.

The average number of wage earners employed in any industry is calculated on the actual number of months the mills were in operation and not on a basis of 12 calendar months.

Table 4. - Employees by Number, Sex and Remuneration, 1928.

Employment by Classes, etc.		CANADA	Ontario	Maritime Provinces and Quebec	Western Provinces
Salaried Employees -					
Male	No.	50	42	5	3
Female	No.	27	25	1	1
Total Salaries	$	181,236	157,933	15,676	7,575
Wage-earners, average number -					
Male	No.	767	472	283	12
Female	No.	1,045	953	75	17
Total Wages	$	1,235,064	997,057	225,156	12,851
T O T A L -					
Employees, Male	No.	817	514	288	15
Employees, Female	No.	1,072	978	76	18
Salaries and Wages	$	1,416,300	1,155,042	240,832	20,426

The Woollen Yarn Industry in Canada, 1928.

Table 5 presents statistics of wage-earning employees in month of highest employment working specified hours per day for Canada and the provinces with percentages of persons working at each specified daily rate. From the table following it will be noted that the prevailing daily rate was that of the groups of wage-earners working 9 and 10 hours per day, the percentages being 54.08 and 32.82 respectively. The next in order was the 8 hour group with 10.51 per cent whilst the groups working more than 10 hours aggregated 2.59 per cent.

Table 5. Hours worked per day by wage-earners in month of highest employment for Canada and the provinces, 1928.

Provinces	Number of 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
CANADA	211	1,086	659	52	10.51	54.08	32.82	2.59
Nova Scotia	-	1	-	-	-	100.00	-	-
New Brunswick	-	18	8	-	-	69.23	30.77	-
Quebec	-	-	297	52	-	-	85.10	14.90
Ontario	160	1,062	354	-	10.15	67.39	22.46	-
Manitoba	-	5	-	-	-	100.00	-	-
British Columbia	51	-	-	-	100.00	-	-	-

Table 5(a) shows the hours of labour per day and per week for Canada and the provinces. The statistics relating to hours of labour in columns 1, 2 and 3 are compiled from the number of employees working specified hours per day in the month of highest employment whilst those in columns 4 and 5 represent the standardweekly hours of labour in the industry as reported to the Bureau by each individual establishment.

The average daily hours of labour computed on the above basis for the Dominion was 9.26 hours per day and 51.35 hours per week.

Table 5(a). - Hours of Labour per day and per week, for Canada and the Provinces, 1928.

Provinces.	Total hours and number of wage-earners in month of highest employment			Standard working hours	
	Total Hours	Total wage-earners	Average hours per day per wage-earner	Total hours	Average hours per wage-earner per week.
CANADA	18,598	2,008	9.26	1,027	51.35
Nova Scotia	9	1	9.00	49	49.00
New Brunswick	242	26	9.31	217	[illegible]
Quebec	3,516	349	10.08	58	58.00
Ontario	14,378	1,576	9.12	610	50.83
Manitoba	45	5	9.00	45	45.00
British Columbia	408	51	8.00	48	48.00

Employment Statistics - Cont'd.

Table 6 presents the statistics of employment during 1928 according to number and sex of wage-earner, by months, The maximum of employment was reached in the month of December with a total of 1,890 employees of whom 767 were males and 1,123 were females. The minimum of employment was reached in January with a total of 1,703 employees, of whom 715 were males and 988 were females. The average employment for the year was 767 males and 1,045 females.

Table 6. - Employment by Months and sex, 1928.

Months	Males No.	Females No.	Months	Males No.	Females No.
January	715	988	July	758	1,059
February	728	989	August	752	1,009
March	735	1,009	September	767	1,017
April	742	1,033	October	771	1,043
May	757	1,017	November	782	1,059
June	778	1,027	December	767	1,123
	Total employment during the year			9,052	12,373
	Average monthly employment during year			767	1,045

Working Time.- Table 7 shows the number of days that plants were in operation during 1928, whether on full time, part time or idle together with the hours of labour worked by employees per day and per week. Hours worked per day decreased to 9.20 in 1928 from 9.35 in 1927.

Table 7. - Working time of Plants and Employees, 1928.

Number of operating plants	20	
	Total	Averages
Days plants were in operation -		
On full time	4,423	221.15
On part time	433	21.65
Idle	1,224	61.20
Hours worked by employees		
Per day or shift	184	9.20
Per week	1,027	51.35

Fuel Consumption

The quantity and value of the fuel consumed by the woollen yarn industry is shown in Table 8 for the calendar year 1928. Bituminous coal accounted for 57.85 per cent of the total outlay in 1928. The cost of electricity purchased during the year amounted to $53,691 as compared with an outlay of $47,621 in 1927.

Table 8. - Fuel Consumption by Classes, 1928.

Classes of Fuel	Unit of Measure	Quantity	Cost Value in Factory
			$
Bituminous	ton	11,798	75,874
Anthracite	ton	15	160
Gasoline	gallon	90	26
Wood	cord	271	1,041
Gas, artificial or natural	m.c.ft.	611	368
Fuel oil	-	-	-
Electricity	-	-	53,691
Total cost of Fuel and Electricity	-	-	131,160

Power Installation

The power installed in woollen yarn mills in 1928 is shown in Table 9 by (a) the classes of power, (b) the number of units in each class and (c) the total horsepower according to manufacturer's rating.

Table 9. - Power Installation, 1928.

Class of Power	Number of units	Horse Power according to manufacturers' rating
Steam engines and turbines	5	340
Oil, gas and gasoline engines	2	22
Hydraulic turbines or water wheels	5	326
Electric motors operated by purchased power	205	3,220
Total power used in manufacturing	217	3,908
Boilers installed	30	2,385

Materials Used.

The quantity and cost value at the mill of the various materials used in the manufacture of woollen and worsted yarn, is presented in Table 10 for the calendar year 1928. Raw wool represented 6.24 per cent, tops and waste and noils 72.97 percent, and woollen and worsted yarns 9.62 per cent of the total cost of materials used during the year.

Table 10. - Materials used in Woollen Yarn Mills, 1928.

Kinds of Materials	Unit of Measure	Quantity	Cost Value at the Factory or Mill
Wool, domestic, - In the grease	Pound	272,092	75,394
Washed, scoured and pulled	"	388,322	183,676
Wool, foreign. - In the grease	"	38,245	21,452
Washed, scoured and pulled	"	34,078	18,380
Wool waste	"	89,306	21,761
Wool noils	"	87,063	30,879
Tops	"	5,265,310	3,441,899
Shoddy, mungo and wool extract	"	51,299	11,724
Cotton, raw	"	589,826	134,945
Tailors' clippings, rags, etc.	"	1,200	250
Woollen yarns	"	758,785	225,019
Worsted yarns	"	274,140	235,850
Cotton yarns	"	60,678	26,949
Artificial silk yarn	"	27,638	33,355
Linen yarns	"	21,295	5,004
Jute ramie, or other yarns of vegetable fibre	"	266,665	32,740
Silk, waste	"	7,421	1,621
Cotton waste	"	171,499	29,436
Chemicals and dyestuffs (value only)	-	-	146,455
All other materials (value only)	-	-	112,379
Total cost of Materials	-	-	4,789,168

Equipment

The equipment of the 17 mills reporting is shown in Table 11.

Table 11. - Equipment installed in Woollen Yarn Mills, 1928

Kind	Woollen	Worsted	Shoddy	Cotton	TOTAL
Sets of cards	63	3	1	5	72
Spindles, number:					
Mule spinning spindles	18,938	-	-	-	18,938
Frame spinning spindles	200	38,992	-	-	39,192
Doubling and twisting spindles	606	17,440	-	-	18,046
Broad looms (50 inches reed space or over)	43	14	-	-	57
Narrow looms (under 50 inches reed space)	2	60	-	-	62
Wool combing machines	-	-	-	-	2
Pickers	-	-	-	-	31
Garnet machines	-	-	-	-	5

Imports and Exports

Figures of Imports and Exports of yarns will be found in Tables 11 and 12, under Woollen Cloth Industry.

SECTION III. Carpets, Mats and Rugs

The statistics of the manufactures of carpets, mats and rugs are dealt with in Section 3 of the woollen textile industry. In 1928 the number of individual establishments reporting was 22 of which 16 were in Ontario, and 1 in each of Nova Scotia, New Brunswick, Alberta, Saskatchewan, Manitoba and British Columbia.

Principal Statistics

A table showing the principal statistics of the industry for the calendar years 1926, 1927 and 1928 is given below for purposes of comparison.

Summary of Principal Statistics, 1926, 1927 and 1928

Principal Statistics		1926	1927	1928
Establishments reporting	No.	17	18	22
Capital invested	$	4,037,183	4,343,572	6,072,610
Employees on salaries -				
Male	No.	112	117	174
Female	No.	23	26	42
Total Salaries	$	273,487	339,427	442,277
Employees on wages, average number -				
Male	No.	483	531	559
Female	No.	210	274	362
Total Wages	$	569,548	681,021	854,527
Cost of fuel	$	100,751	62,406	61,666
Power installed -				
Units	No.		278	275
Capacity	H.P.		2,310	2,267
Cost of Materials	$	1,515,052	1,692,111	2,370,903
Value of products	$	3,152,800	4,015,339	5,009,240
Value added by manufacture	$	1,637,748	2,323,228	2,638,337

Production

The quantity and value of the principal items produced in the carpet factories of the Dominion are shown by provinces in Table 1. Over 98 per cent of the total value of production belongs to the province of Ontario. Carpets contributed 18.58 per cent of the total value of output, rugs and squares 66.54 per cent and other mats, etc. to 14.87 per cent.

Table 1. - Production of Carpets, Mats and Rugs, 1928.

Articles manufactured.		CANADA		ONTARIO		Other Provinces
		Quan.	Value	Quan.	Value	Value Only.
			$		$	$
Carpets, Axminster, Wilton etc.	lineal yds.	317,347	865,880	317,347	865,880	-
Ingrain, Brussels, etc.	" "	60,618	64,655	60,618	64,655	-
Squares, mats and runners:-						
Axminster, Wilton, etc.	Number	12,986	155,437	12,986	155,437	-
Axminster, Wilton, etc.	lineal yds.	1,106,029	2,934,466	1,106,029	2,934,466	-
Smyrna, Brussels, etc.	" "	102,184	243,335	102,184	243,335	-
Other woollen or cotton mats	Number	42,275	137,657	41,675	137,657	-
Cocoa mats and matting	"	-	108,725	-	108,725	-
All other mats and rugs.	-	-	47,258	-	34,280	12,978
All other products, custom work, etc.	-	-	451,827	-	380,706	71,121
T O T A L		-	5,009,240	-	4,925,141	84,099

Size of Establishments

Carpets, Mats and Rugs. - 1928.

In 1928 the number of establishments reporting was 22 with a total capital investment of $6,072,610, - a gross value of production of $5,009,240 and a total employment of 1.137. Three establishments had a capital investment of $5,616,067 or 92.5 per cent of the total capitalization and an average investment of $1,872,022 per establishment. Four firms had a total production of $4,624,238, being 92.3 per cent of the total output and an average of $1,156,059 per establishment. In employment 4 firms reported 977 persons on the payrolls or 85.9 per cent of the total employment with an average employment per establishment of 244.

In 1927 the number of establishments reporting was 18 with a total capital investment of $4,343,572 - a gross value of production of $4,015,339 and a total employment of 948. Two establishments had a capital investment of $3,948,865 or 90.9 per cent of the total capitalization and an average investment of $1,974,432 per establishment. Three firms had a total production of $3,776,598 being 94 per cent of the total output and an average of $1,258,866 per establishment. In employment 3 firms reported 837 persons on the payrolls or 88.3 per cent of the total employment with an average employment per establishment of 279.

	1928			1927		
	Establishments	Total Capital	Average Capital per establishment	Establishments	Total Capital	Average Capital per establishment
	No.	$	$	No.	$	$
Capital Invested						
Under 50,000	16	139,571	8,723	13	85,611	6,585
50,000 to under 100,000	2	150,536	75,268	2	128,185	64,092
100,000 to " 200,000	1	166,436	166,436	1	180,911	180,911
200,000 to " 500,000	-	-	-	-	-	-
500,000 to " 1,000,000	1	998,221	998,221	1	900,963	900,963
1,000,000 and over	2	4,617,846	2,308,923	1	3,047,902	3,047,902
TOTAL	22	6,072,610	276,028	18	4,343,572	241,309
	Establishments	Total Employees	Average Employees	Establishments	Total Employees	Average Employees
	No.	No.	No.	No.	No.	No.
Employees						
Under 20	16	96	6.0	14	75	5.4
20 to under 50	2	64	32.0	1	36	36.0
50 to under 100	1	64	64.0	1	65	65.0
100 to under 200	1	108	108.0	1	183	183.0
200 to under 500	1	265	265.0	-	-	-
500 and over	1	540	540.0	1	589	589.0
TOTAL	22	1,137	51.7	18	948	52.7
	Establishments	Total Value of Production.	Average Value	Establishments	Total Value of Production.	Average Value
	No.	$	$	No.	$	$
Production						
Under 50,000	16	189,989	11,874	14	142,587	10,185
50,000 to under 100,000	1	53,482	53,482	1	96,154	96,154
100,000 to " 200,000	1	141,531	141,531	-	-	-
200,000 to " 500,000	2	685,994	342,997	1	225,000	225,000
500,000 to " 1,000,000	-	-	-	1	846,555	846,555
1,000,000 and over	2	3,938,244	1,969,122	1	2,705,043	2,705,043
TOTAL	22	5,009,240	227,693	18	4,015,339	223,074

Capital Investment

The capital investment in the carpet, mat and rug industry is shown by items and provinces in Table 2. The value of invested capital increased over 1927 by $1,729,038 or nearly 40 per cent. Ontario's proportion of the total investment was approximately 99 per cent.

Table 2. - Capital invested by Provinces, 1928.

Items of Capital	CANADA	ONTARIO	Other Provinces
	$	$	$
Fixed Capital -			
Land, buildings, fixtures, machinery, etc.	2,457,539	2,423,195	34,344
Working Capital -			
Materials, supplies and stocks in hand, etc.	1,266,916	1,249,167	17,749
Cash, trading and operating accounts, etc.	2,348,155	2,338,382	9,773
TOTAL CAPITAL	6,072,610	6,010,744	61,866

Employment Statistics

Statistics relating to employment are shown in the following series of tables for the calendar year 1928:-

(3) Employees, salaries and wages by provinces.
(4) Employment by months.
(5) Working time of plants and employees.

The province of Ontario gave employment to 1,097 persons in a total of 1,137 for the Dominion or approximately 96 per cent, while the amount paid for salaries and wages was 97.5 per cent of the total for the Dominion.

The average number of wage-earners employed in any industry is calculated on the actual number of months the mills were in operation and not on a basis of 12 calendar months.

Table 3. - Employment by number, sex and remuneration in 1928, by Provinces.

Employees by classes		CANADA	ONTARIO	Other Provinces
Employees on salaries -				
Male	No.	174	168	6
Female	No.	42	41	1
Total Salaries	$	442,277	432,466	9,811
Employees on wages, average number -				
Male	No.	559	545	14
Female	No.	362	343	19
Total wages	$	854,527	832,331	22,196
Total employees -				
Male	No.	733	713	20
Female	No.	404	384	20
Salaries	$	1,296,804	1,264,797	32,007

The number of persons employed in the industry is shown for each month of the year divided according to sex. Employment reached its maximum in September with a totalof 973 persons of whom 596 were males and 377 females. The month of lowest employment was November when there were on the payroll a total of 830 of whom 484 were males and 346 were feamles. The average monthly employment was 559 males and [illegible] females as shown in Table 4.

Table 4. - Employment by Months and Sex, 1928.

Months	Male No.	Female No.	Months	Males No.	Female No.
January	545	341	July	572	359
February	565	352	August	583	371
March	581	370	September	596	377
April	544	354	October	572	395
May	563	337	November	484	346
June	555	347	December	519	340
Total employment during the year				6,679	4,289
Average monthly employment during the year				559	362

Employment Statistics - Cont'd.

Operating time of plants and of employees is given in Table 5. The operating time is shown under 3 heads: (1) full time, (2) part time and (3) idle. The average per plant of full time operation remained stationary at 253.33 days during the year, while part time operation was 27.54 and idle time 23.13 days. There was also an increased weekly working hours of employees as compared with 1927.

Table 5. - Operating time of Plants and Employees, 1928.

Number of Establishments reporting	22	
	Total	Average
Days in operation -		
On full time	5,573	253.33
On part time	606	27.54
Idle	509	23.13
Hours worked by wage-earners -		
Per day or shift	191	8.68
Per week	1,069	48.59

Table 6 presents statistics of wage-earning employees in month of highest employment working specified hours per day for Canada and the provinces with percentages of persons working at each specified daily rate. From the table following it will be noted that the prevailing daily rate was that of the groups of wage-earners working 9 and 10 hours per day, the percentages being 86.79 and 7.72 respectively. The next in order was the 8 hour group with 5.49 per cent whilst in the group working more than 10 hours no wage-earners were employed.

Table 6. - Hours worked per day by wage-earners in month of highest employment for Canada and the Provinces, 1928.

Provinces	Number of 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.
CANADA	59	935	83	-	5.49	86.79	7.72	-
Maritime Provinces	35	-	-	-	100.00	-	-	-
Ontario	18	929	83	-	1.75	90.19	8.06	-
Western Provinces	6	4	-	-	60.00	40.00	-	-

Table 6(a) shows the hours of labour per day and per week for Canada and the provinces. The statistics relating to hours of labour in columns 1, 2 and 3 are compiled from the number of employees working specified hours per day in the month of highest employment whilst those in columns 4 and 5 represent the standard weekly hours of labour in the industry as reported to the Bureau by each individual establishment.

The average daily hours of labour computed on the above basis for the Dominion was 9.02 hours per day and 48.60 hours per week.

Table 6(a). - Hours of Labour per day and per week, for Canada and the Provinces, 1928.

Provinces	Total 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 Hours	Average hrs. per wage-earner per week.
CANADA	9,699	1,075	9.02	1,069	48.60
Maritime Provinces	280	35	8.00	92	46.00
Ontario	9,335	1,030	9.06	785	49.06
Western Provinces	84	10	8.40	192	48.00

Carpets, Mats and Rugs, 1928

Fuel Consumption

The quantity and value of fuel consumed by the industry in 1928 is shown in Table 7 by classes. Compared with 1927 there was a decrease in the total cost of fuel which is mainly accounted for by the decrease in the cost of bituminous coal reported. The cost of electricity purchased amounted to $18,538 in 1928 as compared with $18,383 in 1927.

Table 7. - Fuel Consumption by classes, 1928.

Classes of fuel	Unit of Measure	Quantity	Cost value at Factory
			$
Bituminous coal	ton	9,765	59,257
Anthracite coal	"	45	628
Coke	"	9	126
Gasoline	gallon4	326	86
Fuel oils	"	7,260	837
Gas, artificial and natural	m.c. ft.	118	150
All other fuels	-	-	582
Electricity	-	-	18,538
Total Cost of Fuel	-	-	80,204

Power Installation

The kinds of power installed in the carpet factories of the Dominion in 1928 are shown in Table 8. Electric motors supplied over 78 per cent of the total horse power installation in 1928.

Fifteen boilers with a horse power capacity of 2,616 were reported in 1928 as against 8 boilers of 562 horse power in 1927.

Table 8. - Power Installation, 1928.

Classes of power installed	Number of Units	Horse power capacity according to manufacturers' rating
Steam engines and turbines	4	478
Oil gas and gasoline engines	1	3
Electric motors operated by purchased power	270	1,786
Total power used in manufacture	275	2,267
Electric motors operated by power owned	125	1,250
Total electric motors	395	3,036
Boilers installed	15	2,616

Cappets Mats and Rugs, 1928

Materials Used

The principal materials used in the industry in 1928 are shown by quantity and cost value in Table 9. The total value of materials used amounted to $2,370,903. of which woollen and worsted yarns constituted $1,509,591 or 63.7 per cent. This value represents an increase from the 1927 report of $678,792 or approximately 28.6 per cent.

Table 9. - Materials Used by Kinds, 1928.

Kinds of materials used.	Unit of Measure	Quantity	Cost Value
Woollen yarns	pounds	1,616,087	936,996
Worsted yarns	"	765,098	572,595
Cotton yarns	"	1,211,163	412,601
Linen yarns	"	16,000	3,971
Jute, ramie and other yarn of vegetable fibre	"	2,018,063	294,984
Chemicals and dyestuffs (value only)	-	-	97,774
All other materials (value only)	-	-	51,982
Total Cost of Materials	-	-	2,370,903

Equipment in Carpet, Mat and Rug Factories

The equipment reported in the carpet, mat and rug factories of the Dominion in 1928 was as follows:-

Broad Looms (50 inches reed space or over)	44
Narrow looms (under 50 inches reed space)	318
Other looms	14
Coppers	4
Winders	3
Twisters	4
Braiders	3
Knitting machines	30
Sewing machines	11
Cutting machines	2

Imports and Exports

Table 10 presents statistics of the imports and exports of Carpets, mats and rugs by principal countries for the calendar year 1928. The total value of imports was $3,366,258 and the value of manufactured products $5,009,240, so that for every dollar of product manufactured in Canada we import goods to the value of sixty-seven cents. The United Kingdom supplied $1,438,664 of the value of import. .or consumption or 42.7 per cent, the United States $298,753 or 8.9 per cent and al' Other Countries $1,628,841 or about 48.4 per cent.

Carpets, Mats and Rugs, 1928

Table 10. - Imports of Carpets, Mats and Rugs by Principal Countries for Calendar Year, 1928.

Articles		Quantity	Value
			$
Carpets, Axminster in rolls	Yd.		
United Kingdom		65,210	143,845
United States		641	1,644
Other Countries		5,806	9,756
TOTAL		71,657	155,245
Carpets, Axminster in squares	No.		
United Kingdom		10,738	259,920
United States		550	11,541
Germany		1,594	26,644
Other Countries		3,893	54,373
TOTAL		16,775	352,478
Carpets, Brussels and Wilton in rolls	Yd.		
United Kingdom		18,315	41,674
United States		680	2,459
Other Countries		999	3,377
TOTAL		19,994	47,510
Carpets, Brussels, Wilton in squares	No.		
United Kingdom		3,656	120,272
United States		142	6,179
Other Countries		2,630	48,255
TOTAL		6,428	174,706
Carpets, Ingrain 2 & 3 ply in rolls	Yd.		
United Kingdom		29,672	61,650
United States		3,032	2,192
Other Countries		13,421	21,442
TOTAL		46,125	85,284
Carpets, Ingrain 2 & 3 ply in squares	No.		
United Kingdom		2,373	57,594
United States		5,491	26,147
France		9,088	99,785
Other Countries		923	21,645
TOTAL		17,875	205,171
Carpets, oriental and hand woven in squares	No.		
United Kingdom		6,470	[illegible]
United States		1,783	170,820
British India		2,185	100,365
China		1,259	61,802
Persia		6,133	192,282
Turkey		8,520	300,489
Greece		2,497	159,487
Other Countries		2,709	84,243
TOTAL		31,556	1,466,875

Table 10. - Imports of Carpets, Mats and Rugs by Principal Countries for Calendar Year, 1928. (Cont'd.).

Articles		Quantity	Value
Carpets, tapestry and velvet in rolls	Yd.		
United Kingdom		57,461	48,678
United States		816	1,024
France		21,422	24,599
Other Countries		6,647	10,753
TOTAL		86,346	85,054
Carpets, tapestry and velvet in squares	No.		
United Kingdom		3,801	48,116
United States		122	1,935
Germany		3,065	38,414
Other Countries		5,692	53,762
TOTAL		12,680	142,227
Cocoa carpets, mats and rugs - value only			
United Kingdom		-	2,508
United States		-	1,012
British India		-	22,851
Other Countries		-	1,257
TOTAL		-	27,628
Mats and rugs up to 3' x 6' and runners			
United Kingdom		-	257,020
Germany		-	37,965
United States		-	73,800
France		-	77,321
Japan		-	90,920
Other Countries		-	87,054
TOTAL		-	624,080
Total value of imports by Countries -			
United Kingdom		-	1,438,664
United States		-	298,753
British India		-	123,216
France		-	201,705
Germany		-	103,023
China		-	63,802
Japan		-	90,920
Greece		-	159,487
Persia		-	192,282
Turkey		-	300,489
Other Countries		-	395,917
TOTAL		-	3,366,258

The value of exports of Canadian produce are shown in Table 11 by principal countries, the total value in 1928 being $82,832 an increase of $57,064 over 1927.

Table 11. - Exports of Carpets, Mats, etc. to Principal Countries for Calendar Year 1928.

	Quantity	Value
		$
Wool carpets (value only)		
United Kingdom	-	5,118
United States	-	7,146
Other Countries	-	58,468
TOTAL EXPORTS		82,832

SECTION IV. Woollen Goods n. e. s.

In 1928 the number of establishments reporting was 27 with a total capital investment of $8,375,122 a gross value of production of $6,909,229 and a total employment of 1,225. Eight establishments had a total capital investment of $7,219,524 or 86.2 per cent of the total capital investment and an average of $902,440 per establishment. Eight establishments reported a gross value of production of $5,483,257 or 79.3 per cent of the total production, being an average output of $685,407 per establishment. In employment 9 firms had 1,072 persons on the payroll being an average of 119 persons per establishment and 87.5 per cent of the total employment.

In 1927 the number of establishments reporting was 24 with a total capital investment of $7,758,050, a gross value of production of $5,934,369 and a total employment of 1,113. Eight establishments had a total capital investment of $6,787,301 or 87.5 per cent of the total capital investment and an average of $848,413 per establishment, Seven establishments reported a gross value of production of $4,743,919 or 79.9 per cent of the firms had 833 persons on the payroll being an average of 167 person per establishment and 74.8 per cent of the total employment.

Woollen Goods, n. e. s.

Capital Invested	1928			1927		
	Establishments	Total Capital	Average Capital per establishment	Establishments	Total Capital	Average Capital per establishment
	No.	$	$	No.	$	$
Under 50,000	9	198,149	22.017	8	218,598	27.325
50,000 to under 100,000	6	399,283	66.547	5	331,041	66.208
100,000 to under 200,000	4	558,166	139.541	3	421,110	140.370
200,000 to under 500,000	3	778,842	259.614	4	1,267,377	316.844
500,000 to under 1,000,000	2	1,085,778	542.889	1	522,727	522.737
1,000,000 and over	3	5,354,904	1,784.968	3	4,997,187	1,665.729
T O T A L	27	8,375,122	310.189	24	7,758,050	323.252
Employees	Establishments	Total Employees	Average Employees	Establishments	Total Employees	Average Employees
	No.	No.	No.	No.	No.	No.
Under 20	18	153	8.5	15	127	8.5
20 to under 50	3	108	36.0	4	153	38.2
50 to under 100	2	114	57.0	1	60	60.0
100 to under 200	2	266	133.0	2	246	123.0
200 to under 500	2	584	292.0	2	527	263.5
500 and over	-	-	-	-	-	-
T O T A L	27	1,225	45.4	24	1,113	46.4
Production	Establishments	Total Value of Production	Average Value	Establishments	Total Value of Production	Average Value
	No.	$	$	No.	$	$
Under 50,000	9	255,343	28.371	8	227,738	28.467
50,000 to under 100,000	5	393,422	78.684	4	315,488	78.872
100,000 to under 200,000	5	777,207	155.441	5	647,229	129.446
200,000 to under 500,000	4	1,088,571	272.143	3	780,709	260.236
500,000 to under 1,000,000	3	2,212,066	737.335	3	1,864,917	621.639
1,000,000 and over	1	2,182,680	2,182.680	1	2,098,293	2,098.293
T O T A L	27	6,909,229	255.897	24	5,934,369	247.265

The principal commodities comprising this section are (1) wool felts of all kinds, (2) wool stock shoddy), (3) wool, pulled, (4) blankets and sweat pads. The number of individual plants reporting in this section during 1928 was 27 as compared with 24 in the preceding year. Of the plants in operation 19 were located in Ontario, 5 in Quebec and 1 in each of the provinces of British Columbia, New Brunswick and Nova Scotia. The statistics for the last mentioned provinces have combined to prevent disclosure of individual information and are presented under the heading of "other provinces" throughout the tables of this report. For the principal statistics relating to this section see column 4 of page 2 of this report.

Production, 1928

Table 1. presents statistics of production by quantity and value within provinces for the calendar year 1928. Of the total value of output the province of Ontario contributed $4,101,316 or 59.4 per cent. followed by Quebec with 37.0 per cent, whilst the remaining provinces produced less than 4 per cent. The item of production showing the greatest value was pulp and paper maker's felts amounting to $3,149,269 or a little over 45 per cent. Shoddy mungo and wool extract being next with a value of $703,691 or 10.18 per cent followed in order by blankets with a value of $510,202 and wool pulled with a value of $461,148.

Table 1. - Production in Woollen Goods Mills, n.e.s., by Provinces, 1928.

Articles Manufactured		CANADA		Quebec		Ontario		Other Provinces	
		Quantity	Value $	Quantity	Value $	Quantity	Value $	Quantity	Value $
Felt Goods -									
Shoe felts	Yard	230,484	213,929	-	-	230,484	213,929	-	-
Harness felts	Pound	162,890	72,861	-	-	162,890	72,861	-	-
Hair felts	Yard	64,000	49,000	-	-	64,000	49,000	-	-
Trimming and lining felts	Yard	70,000	53,854	-	-	70,000	53,854	-	-
Padding felts	Yard	617,781	165,926	-	-	617,781	165,926	-	-
Pulp and paper maker's felts	Pound	2,470,754	3,149,269	1,804,562	1,949,809	666,192	1,199,460	-	-
All other felt goods	Pound	-	64,601	-	-	-	64,601	-	-
Shoddy mungo and wool extract	Pound	5,117,468	703,691	734,351	105,592	4,383,117	598,099	-	-
Sweat pads	Dozen	70,307	367,998	-	-	70,307	367,998	-	-
Blankets	-	-	510,202	-	232,871	-	277,331	-	-
Wool, pulled	Pound	1,045,433	461,148	48,000	18,600	600,381	251,931	377,052	190,617
Auto cushions	Number	94,391	37,279	-	-	94,391	37,279	-	-
Insoling material	Yard	118,717	26,118	118,717	26,118	-	-	-	-
Woollen yarns	Pound	2,000	870	-	-	2,000	870	-	-
Pickled skins	Dozen	31,016	245,509	3,030	18,450	17,666	168,383	10,320	58,676
Gloves, cotton	Dozen Pr.	180,010	317,018	-	-	180,010	317,018	-	-
Box toes	Pair	6,086,985	154,473	6,086,985	154,473	-	-	-	-
Batts, flocks and rolls	Pound	1,095,791	43,831	1,095,791	43,831	-	-	-	-
Weather strip		-	51,530	-	-	-	51,530	-	-
All other products		-	80,248	-	8,876	-	71,372	-	-
Custom and repair work		-	139,874	-	-	-	139,874	-	-
TOTAL VALUE OF OUTPUT		-	6,909,229	-	2,558,620	-	4,101,316	-	249,293

SECTION IV. - Woollen Goods, n. e. s. (Cont'd.).

Capital Investment

The amount of capital invested in this section of the woollen textile industry is shown by provinces in Table 2. It is also presented under two heads:- Fixed Capital and working capital, the first of which includes land, buildings, fixtures, machinery and tools, and the second materials and stocks on hand, fuel and miscellaneous supplies on hand, and cash, trading and operating accounts, and bills receivable. The investment in 1928 shows an increase in total of $617,072. Approximately 60.3 per cent of the total investment is credited to the province of Ontario, 37.4 per cent to Quebec and 2.3 per cent to the other provinces.

Table 2. - Capital investment by provinces, 1928.

Province	Fixed Capital	Working Capital		Total Capital
	Land, Buildings machinery tools	Materials and supplies on hand	Cash, trading and operating accounts, etc.	
	$	$	$	$
CANADA	5,155,971	1,678,122	1,541,029	8,375,122
Ontario	3,012,845	1,023,278	1,016,222	5,052,345
Quebec	2,106,133	550,284	475,716	3,132,133
Other Provinces 1/	36,993	104,560	49,091	190,644

1/ Includes Nova Scotia, New Brunswick and British Columbia.

Employment Statistics.

Statistics of employment are presented in a series of Tables for the calendar year 1928 as follows:-

Table 3. Employees by number, sex and remuneration.
Table 4. Employees by months and sex.
Table 5. Operating time of plants and employees.

The number of persons employed as per payroll is shown by sex and remuneration in Table 3. The number employed rose from 1,113, (699 males and 414 females) in 1927 to 1,225, (800 males and 425 females) in 1928. Salaries increased by $19,438 and wages by $75,642. The province of Ontario supplied 63.1 per cent of the total employees and paid 64 per cent of the total of salaries and wages.

The average number of wage-earners employed in any industry is calculated on the actual number of months the mills were in operation and not on a basis of 12 calendar months.

Table 3. Employees, Salaries and Wages, by Provinces, 1928.

Classes of Employees		CANADA	Ontario	Quebec	Other Provinces
Salaried employees -					
Male	No.	85	46	36	3
Female	No.	26	23	3	-
Total Salaries	$	329,763	176,525	149,023	4,220
Employees on wages -					
Male	No.	715	423	260	32
Female	No.	399	281	118	2
Total Wages	$	877,269	596,072	264,338	16,859
Total Employees -					
Male	No.	800	469	296	35
Female	No.	425	304	121	-
Salaries and Wages	$	1,207,032	772,597	413,361	21,079

Employment Statistics - Cont'd.

The number of wage-earners employed in this section by months and sex is shown in Table 4. Employment was at the maximum in the month of November when 1,152 individuals were entered on the payroll and the minimum in the month of July when the number on the payroll was 1,068. The average monthly employment during the year was 1,114 of whom 715 were males and 399 were females.

Table 4. - Employment of Wage-earners, by Months and Sex, 1928

Months	Male No.	Female No.	Months	Male No.	Female No.
January	702	402	July	674	394
February	708	404	August	691	401
March	692	412	September	681	402
April	687	395	October	713	402
May	683	394	November	739	413
June	701	375	December	723	401
Total employment during the year				8,399	4,795
Average monthly employment throughout year				715	399

The working time of plants and employees is shown in Table 5. The operating time of plants whether on full or part time and the number of days the plants were idle are given by totals and averages. Full time operations were carried on for 249.18 days and part time for 23.26 days, whilst plants were idle for a total of 31.56 days. The hours of labour averaged 9.04 per day as against 8.9 in 1927 and 50.74 hours per week, as compared with 49 54 hours in 1927.

Table 5. - Working time of plants and employees, 1928.

Number of operating plants	27	
	Total	Averages
Days in operation -		
on full time	6,728	249.18
on part time	628	23.26
Idle	852	31.56
Hours worked by employees -		
Per day or shift	244	9.04
Per week	1,370	50.74

Table 6 presents statistics of wage-earning employees in month of highest employment working specified hours per day for Canada and the provinces with percentages of persons working at each specified daily rate. From the table following it will be noted that the prevailing daily rate was that of the groups of wage-earners working 9 and 10 hours per day, the percentages being 51.31 and 35.93 respectively. The next in order was the 8 hour group with 11.86 per cent whilst the groups working more than 10 hours aggregated less than 1 per cent.

Table 6. - Hours worked per day by wage-earners in month of highest employment for Canada and the Provinces, 1928.

Province	Number of 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
CANADA	145	627	439	11	11.86	51.31	35.93	.90
Maritime Provinces	-	22	-	-	-	100.00	-	-
Quebec	7	-	394	-	1.75	-	98.25	-
Ontario	124	605	45	11	15.80	77.07	5.73	1.40
Western Provinces	14	-	-	-	100.00	-	-	-

Employment Statistics - Cont'd.

Table 6(a) shows the hours of labour per day and per week for Canada and the provinces. The statistics relating to hours of labour in columns 1, 2 and 3 are compiled from the number of employees working specified hours per day in the month of highest employment whilst those in columns 4 and 5 represent the standard weekly hours of labour in the industry as reported to the Bureau by each individual establishment.

The average daily hours of labour computed on the above basis for the Dominion was 9.26 hours per day and 50.74 hours per week.

Table 6(a) - Hours of Labour per day and per week, for Canda and the Provinces, 1928.

Provinces	Total hours and number of wage-earners in month of highest employment			Standar working hours per week	
	Total hours	Total wage-earners	Average hours per day per wage-earner	Total hours	Average hours per wage-earner per week
CANADA	11,308	1,222	9.26	1,370	50.74
Maritime Provinces	198	22	9.00	104	52.00
Quebec	3,996	401	9.96	270	54.00
Ontario	7,002	785	8.92	948	49.90
Western Provinces	112	14	8.00	48	48.00

Fule Consumption

The quantity and the cost value at the mill of the fuel consumed in this section are given in Table 7. for the calendar year 1928. Coal of all kinds constituted 91.25 per cent of the total cost of fuel. The cost of electricity purchased amounted to $24,373 in 1927 as compared with an expenditure of $33,529 in 1928.

Table 7. - Fuel Consumption, by Classes, 1928.

Classes of fuel	Unit of Measure	Quantity	Cost Value at Mill
Bituminous Coal (incl. screenings)	ton	10,015	72,536
Anthracite coal	"	59	553
Lignite coal	"	3	50
Coke	"	54	756
Gasoline	gal.	120	20
Oil (Fuel)	"	-	-
Wood	Cord	5	25
Gas	M.C.ft.	200	117
Other fuel	-	-	6,095
Electricity	-	-	33,529
Total Cost, fuel and electricity		-	113,681

Power Installation

The installation of power by classes and horse power as rated by the manufacturer, is presented in Table 8, for the calendar year 1928. An increase, in installed h.p. capacity for manufacturing purposes, of 80 h.p. over 1927 will be noted which is accounted for by the increase in electrical power.

Table 8. - Power installed in the Woollen Goods Industry, N.E.S. - 1928.

Classes of Power	Number of Units	Horse power according to manufacturers' rating
Steam engines and turbines	2	90
Oil, gas and gasoline engines	2	169
Hydraulic turbines or water wheels	6	986
Electric motors operated by purchased power	266	3,849
Total power for manufacturing purposes	276	4,094
Electric motors operated by power generated by the establishments	149	1,383
Total electric motors	415	4,232
Boiler installation	16	1,338

Materials Used

Table 9 gives the quantity and cost value at the mill or factory of the principal materials used in this section of the woollen textile industry in 1928. The total cost of materials shows an increase of $554,932 over the preceding year.

Table 9. - Materials Used, 1928.

Kind	Unit of Measure	Quantity	Cost Value at Mill
			$
Wool, domestic: in the grease	Pound	34,280	11,552
washed or scoured	"	48,930	33,677
Wool, foreign : in the grease	"	2,036,951	384,703
washed, scoured and pulled	"	942,663	554,015
Animal hair, all kinds	"	321,608	26,250
Tailors' clippings, rags, etc.	"	5,637,969	449,821
Cotton, raw	"	1,171,368	312,906
Wool waste and noils	"	108,476	12,907
Sheepskins	No.	375,351	626,569
Jute and other waste	Pound	383,860	13,893
Recovered wool fibre	"	440,000	38,722
Cotton linters, waste, etc.	"	2,316,673	115,510
Chemicals and dyestuffs (value only)	-	-	135,678
All other materials (value only)	-	-	278,715
Total Cost of Materials	-	-	3,494,918

Equipment in Textile Mills, N.E.S.

The equipment in mills for the manufacture of the various classes of goods made in this section of the woollen textile industry is presented in Table 10.

Table 10. - Equipment in Woollen Textile Mills, N.E.S. 1928.

Kind		Woollen	Shoddy	Total
Sets of cards	No.	29	32	61
Spindles				
Mule spinning spindles	No.	2,560	-	2,560
Frame spinning spindles	No.	450		450
Broad looms (50 inches reed space or over)	No.	54	1	55
Pickers	No.	-	-	33
Garnet machines	No.	-	-	3
Other machines	No.	-	-	2

Imports and Exports

Statistics relating to imports for consumption and to exports of Canadian produce for the calendar year are not sufficiently indicated in the trade classification to permit of tabulation, but the values of such are included under total imports of wool and its products on pages 11 to 16 and total exports on pages 17 and 18 of this report.

APPENDIX

Firms Manufacturing Woollen Cloths

NOVA SCOTIA

Jas. Creelman & Sons	Newton Mills
Oxford Manufacturing Co. Ltd.	Oxford
Barrington Woollen Mill	Barrington
St. Croix Woollen Manufacturing Co. Ltd.	St. Croix,

NEW BRUNSWICK

F. H. Copp, Ltd.	Port Elgin
J. A. Humphrey & Son, Ltd.	Box 366, Moncton.

QUEBEC

Fred Blanchette (Trenholmville Woollen Mills)	R.R. # 1, Trenholmville.
Joseph Blanchette	R.R. # 1, South Durham
Walter Blue & Co. Ltd.	Waterville
Methot & Frere	Cap St. Ignace
Albert E. Morrison	Brownsburg.
Paton Manufacturing Co. Ltd.	7 Bèlvidere St., Sherbrooke
Warwick Woollen Mills, Ltd.,	Warwick
Napoleon Paquin	St. Gabriel de Brandon
Talon Woollen Co.	Barette (Labelle Co.)
Produits Agricoles Ltd., (Eugene Gagne)	Metabetchouan
Saguenay Spinners Ltd.	Chicoutimi

ONTARIO

F. E. Cleroux	Clarence Creek.
Bancroft Woollen Mills (D. Fuller)	Bancroft.
The Barrymore Cloth Co. Ltd.	1179 King St. West, Toronto.
Bird Woollen Mill Co. Ltd.	Bracebridge.
Tayside Textiles, Ltd.	Perth.
The Brook Woollen Co. of Simcoe, Ltd.	Victoria St. Simcoe.
The Burritt's Rapids Woollen Mills, Ltd.	Burritt's Rapids.
Duncan Butler	Strathroy.
The Campbell Woollen Co. Ltd.	Almonte
Campbellford Cloth Co. Ltd.	Campbellford
Canadian Woollens, Ltd. (Auburn Mills)	Peterborough.
A. W. Eastwood	Baltimore
Flesherton Woollen Mill, (John Nuhn)	Flesherton.
Dominion Woollens and Worsteds Ltd.	Hespeler.
J. W. Gledhill	Ben Miller, (R.R. #4, Goderich).
Glen Woollen Mills, Ltd.	Glen Williams.
The Horn Bros. Woollen Co. Ltd.	95 William St. N. Lindsay.
S. B. Lehman & Sons	R. R. #1, Unionville.
National Textiles Ltd.	507 College Avenue, Toronto 3,
W. J. Hill, (Madoc Woollen Mills)	Madoc.
Randle Bros. (Meaford Woollen Mills)	Meaford
Northern Textiles, Ltd.,	P.O. Box #405, Chesley.
The Oriental Textiles Co. Ltd.	131 Athol Street, East, Oshawa.
The Paris Yarncey Mills Co. Ltd.	Paris
Geo. Pattison & Co. Ltd.	Eagle Street, Preston.
Reiner Bros. & Co. Ltd.	Wellesley
Renfrew Textile Co. Ltd.	Renfrew
Rosamond Woollen Co. Ltd.	Almonte
The Slingsby Manufacturing Co. Ltd.	266 West Mill Street, Brantford.
DupontTextiles Ltd.	Christie & Dupont Streets Toronto 4.
William Thoburn (Thoburn Woollen Mills)	Almonte
Vickerman Bros.	R. R. #1, Preston.
H. C. Wagner, (Newton Woollen Mills)	Newton.
Watchorn & Co. Ltd.	Merrickville.

Firms Manufacturing Woollen Yarn

NOVA SCOTIA

A. M. Macpherson	Rocklin (R. R. # 1, Lansdowne).

NEW BRUNSWICK

Briggs and Little	York Mills.
Carleton County Woollen Mills	239 Main Street, Woodstock.
Speedy & Davidson	King Street, St. Stephen.
Golden Grove Woollen Mills	Golden Grove.

QUEBEC

Penman's Limited. (Mill # 8)	St. Hyacinthe.

ONTARIO

Aked & Co. Ltd. (Operated by Patons and Baldwins Limited)	388 Dupont Street, Toronto.
Dominion Woollens and Worsteds Limited	Peterborough.
Dunnville Woollen Mills, Limited	H.O. 388 St. James St. Montreal.
Elliot Manufacturing Co. Ltd.	Rink Street, Peterborough.
James F. Gordon	Athens
Guelph Carpet & Worsted Spinning Mills, Ltd.	83 Neeve Street, Guelph. (Carpets and Yarns).
Dominion Woollens and Worsted Ltd.	Milton.
Otonabee Mills, Ltd.	62½ Hunter Street, Peterborough.
Penman's Limited (Mill # 9)	Paris.
Penman's Limited (Mill # 12)	Waterford.
Newlands and Co. Ltd.	Galt.
Dominion Woollens and Worsted Ltd.	Orillia.

BRITISH COLUMBIA

B. C. Worsted Mills Limited,	Ogden Point, Victoria.

MANITOBA

Fairfield and Sons	Little Brittain.

Firms Manufacturing Carpets, Mats and Rugs

NOVA SCOTIA

John E. Garret Ltd.	Kempt Street. New Glasgow.

NEW BRUNSWICK

Maritime Rug Works, Ltd.	370 Main Street, Saint John.

ONTARIO

W. E. Eaton	128 Union St. Preston.
Dominion Rug Co.	15 Niagara St. Brantford.
Harding Carpets Ltd.	Brantford.
Canada Rug Co. (W.C.P. Baldwin)	98 Carling St. London.
Hamilton Rug Works (Allan Brass)	171 York Street, Hamilton.
Therien and Company	374 St. Andrew Street, Ottawa.
Turco Persian Rug Renovating Co.	166 Duchess Street, Toronto.
Veteran Rug Weaving Co.	1201 A. Queen Street, E. Toronto.
Brinton Carpet Co. Ltd	Box 1065, Peterborough.
Coburg Matting & Carpet Co. Ltd.	Coburg.
Empire Rug Mills	# 1 Frank Street, St. Catharines.
Donald McKinnon & Sons	Box #234 Cobourg.
The Toronto Carpet Manufacturing Co. Ltd.	1179 King St. West, Toronto.
United Rug Weaving Co.	125 Ewart Avenue, Toronto 9.
Novelty Rug Co.	349-353 Carlaw Ave. Toronto 8.
Monarch Pattern and Needle Co.	49 Harbard St. Toronto.

MANITOBA

Capital Carpet & Rug Manufacturing Co. Ltd.	18 Main Street, Winnipeg.

SASKATCHEWAN

Textile Weaving & Carpet Cleaning Works	406-20th Street, West, Saskatoon.

ALBERTA

Calgary Carpet & Rug Mfgrs.(D.A. Stoddart).	Rear 919-17th Ave. W. Calgary.

BRITISH COLUMBIA

Vancouver Fluff Rug. Co. (Fred'k. S. Lockett)	806- 17th Ave., Vancouver.

Firms Manufacturing Woollen Goods, n. e. s.

NOVA SCOTIA

Colonial Fertiliser Co.	Nesbitt St. Windsor	Wool Pulling

NEW BRUNSWICK

John Kimble & Son. Ltd.	1-15 Kimball St. Saint John,	Wool Pulling.

QUEBEC

Geo. E. Jackson	31 Duke St. Montreal	Wool Pulling.
Beckwith Box Toe, Ltd.	66 E. Belvidere St. Sherbrooke.	Wool felt goods
Ayers, Ltd.	Lachute Mills	Wool felt goods
Montreal Blanket Co.	1600 St. Patrick St. Montreal	Shoddy.
Kendex Manufacturing Co. Ltd.	358 St. Peter St. St. Johns	Wool felt goods.

ONTARIO

Hoffman Bros. Ltd.	53 Trinity St. Toronto	Wool Pulling.
E. Leadley & Co.	896 Queen St. W. Toronto	Wool Pulling.
Toronto Wool Scouring Co.	2 Mark St. Toronto.	Wool Pulling.
Canadian Consolidated Felt Co. Ltd.	84 Margaret Ave. Kitchener	Wool felt goods.
Kenwood Mills Ltd.	Arnprior	Wool felt goods.
Code Felt & Knitting Co. Ltd.	Perth	Wool felt goods.
The Rumpel Felt Co. Ltd.	60 Victoria St. Kitchener	Wool felt goods.
Porrits & Spencer (Canada) Ltd.	Lettridge St. Hamilton	Wool felt goods.
Brantford Mill Stock Co.	31 Jarvis St. Brantford	Shoddy
Empire Wool Stock Co.	51 Stuart St. W., Hamilton	Shoddy.
General Wool Stock Co.	121 Logan Ave, Toronto -	Shoddy
Home Wool Stock Co.	9 Foster Place, Toronto	Shoddy.
Otto Horuth & Sons Ltd.	Preston	Shoddy.
Simcoe Wool Stock Co. (H.J. Brock)	Simcoe	Shoddy.
The Smith Mfg. Co. Ltd.	201 Front St. E. Toronto	Shoddy.
Yorkshire Wool Stock Mills, Ltd.	Almonte	Shoddy.
The American Pad and Textile Co.	Queen St. Chatham	Horse Clothing.
Burlington Windsor Blanket Co. Ltd.	787-793 King St. W. Toronto	Horse Clothing.
Canada Wool Stock Co.	257 Niagara St. Toronto	Shoddy.

BRITISH COLUMBIA

Bissinger and Co.	365 Second Ave. W. Vancouver	Wool Pulling.