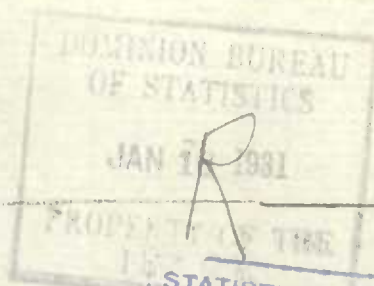


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REPORT  
on the  
WOOLLEN TEXTILE INDUSTRY  
in  
CANADA

NOTE: The statistics published in the present

statement include only the statistics of the principal products  
of such manufacturing establishments as use wool as the principal  
material. The statistics of the following principal products  
are therefore not included: 1. Woollen Cloths  
2. Woollen Yarns  
3. Carpets, Mats and Rugs  
4. Woollen Goods, not elsewhere specified  
are also found as secondary products of other industries  
of the Hosiery and Knit Goods etc. etc.

Published by Authority of the Hon. H. H. Stevens, M.P.,  
Minister of Trade and Commerce

OTTAWA

1930

902-4E  
12

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.



## DEPARTMENT OF TRADE AND COMMERCE

## DOMINION BUREAU OF STATISTICS

OTTAWA - CANADA

Dominion Statistician:  
Chief, Census of Industry:

R. H. Coats, B.A., F.S.S.(Hon.), F.R.S.C.  
J. C. Macpherson

THE WOOLLEN TEXTILE INDUSTRY IN CANADA, 1929.

Ottawa, November, 1930. - The annual report of the Woollen Textile Industry in Canada for the calendar year 1929 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 decreased since last report by 7, woollen yarn mills increased by 7, carpets, mats and rugs remained as in 1928, and woollen textile mills, n.e.s. decreased by 1.

The decrease in the number of mills making woollen cloth was due to a transfer of certain mills to the woollen yarn section.

|                   | Woollen<br>cloth<br>mills | Woollen<br>yarn<br>mills | Carpets<br>mats and<br>rugs | Woollen<br>goods<br>n. e. s. / | All Woollen<br>textile<br>mills |
|-------------------|---------------------------|--------------------------|-----------------------------|--------------------------------|---------------------------------|
| CANADA            | 44                        | 27                       | 22                          | 26                             | 119                             |
| Nova Scotia       | 2                         | 3                        | 1                           | 1                              | 7                               |
| New Brunswick     | 1                         | 5                        | 1                           | 1                              | 8                               |
| Quebec            | 12                        | 1                        | -                           | 4                              | 17                              |
| Ontario           | 29                        | 16                       | 16                          | 19                             | 80                              |
| 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, 1929.

## 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 1928 and 1929. The tables further indicate the movement of capital production and employment within the industry.

### Woollen Cloth Mills.

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 \$13,947,840 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 1929 the number of mills in operation were 44 with a total capital investment of \$20,016,232 a gross value of production of \$16,241,194 and a total employment of 4,145. Twenty-six establishments had a capital investment of \$19,553,175 or 97.68 per cent of the total capitalization and an average investment per establishment of \$752,045. Twenty-one plants had a gross production of \$15,705,944 or 96.7 per cent of the total production and an average output per establishment of \$747,902. In employment 20 establishments had 3,828 persons on the payroll being an average of 191.4 per establishment and 92.3 per cent of the total employment.

### Woollen Cloth Mills, 1928-1929.

| Employees                  | 1928             |                     |                                             | 1929                 |                     |                                             |
|----------------------------|------------------|---------------------|---------------------------------------------|----------------------|---------------------|---------------------------------------------|
|                            | Estab-lish-ments | Number of Employees | Average No. of Employees per estab-lishment | Estab-lish-ments No. | Number of Employees | Average No. of Employees per estab-lishment |
| Under 20                   | 26               | 173                 | 6.66                                        | 16                   | 102                 | 6.38                                        |
| 20 to under 50             | 6                | 198                 | 33.00                                       | 8                    | 215                 | 26.87                                       |
| 50 to under 100            | 7                | 474                 | 67.71                                       | 9                    | 651                 | 72.54                                       |
| 100 to under 200           | 4                | 526                 | 131.50                                      | 3                    | 453                 | 144.33                                      |
| 200 to under 500           | 7                | 2,036               | 290.86                                      | 7                    | 2,157               | 308.14                                      |
| 500 and over               | 1                | 589                 | 589.00                                      | 1                    | 587                 | 587.00                                      |
| TOTAL                      | 51               | 3,996               | 78.35                                       | 44                   | 4,145               | 94.20                                       |
| Capital Invested -         | Estab-lish-ments | Amount              | Average Capital per estab-lishment          | Estab-lish-ments     | Amount              | Average Capital per estab-lishment          |
|                            | No.              | \$                  | \$                                          | No.                  | \$                  | \$                                          |
| Under 50,000               | 23               | 362,047             | 15,741                                      | 15                   | 240,639             | 16,047                                      |
| 50,000 to under 100,000    | 5                | 379,577             | 75,915                                      | 3                    | 222,418             | 74,139                                      |
| 100,000 to under 200,000   | 6                | 683,490             | 147,248                                     | 6                    | 317,948             | 136,325                                     |
| 200,000 to under 500,000   | 7                | 2,534,078           | 362,011                                     | 9                    | 3,233,472           | 359,275                                     |
| 500,000 to under 1,000,000 | 4                | 2,844,980           | 711,245                                     | 4                    | 2,901,548           | 725,387                                     |
| 1,000,000 and over         | 6                | 11,270,723          | 1,878,454                                   | 7                    | 12,600,207          | 1,800,029                                   |
| TOTAL                      | 51               | 18,274,895          | 353,331                                     | 44                   | 20,016,232          | 454,919                                     |
| Production                 | Estab-lish-ments | Amount              | Average Production per estab-lishment       | Estab-lish-ments     | Amount              | Average Production per estab-lishment       |
|                            | No.              | \$                  | \$                                          | No.                  | \$                  | \$                                          |
| Under 50,000               | 26               | 271,092             | 10,427                                      | 18                   | 225,118             | 12,506                                      |
| 50,000 to under 100,000    | 4                | 285,497             | 71,374                                      | 5                    | 310,132             | 62,026                                      |
| 100,000 to under 200,000   | 4                | 557,852             | 139,463                                     | 4                    | 577,345             | 144,336                                     |
| 200,000 to under 500,000   | 7                | 1,853,407           | 264,772                                     | 9                    | 2,764,982           | 345,623                                     |
| 500,000 to under 1,000,000 | 5                | 3,573,431           | 714,686                                     | 3                    | 1,974,832           | 658,277                                     |
| 1,000,000 and over         | 5                | 3,820,802           | 1,704,160                                   | 6                    | 10,383,735          | 1,731,454                                   |
| TOTAL                      | 51               | 15,062,081          | 295,335                                     | 44                   | 16,241,194          | 369,118                                     |





THE WOOLLEN TEXTILE INDUSTRY IN CANADA, 1929.

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 1929 for the Dominion as a whole.

Summary of Woollen Textile Industry,  
by Sections - 1929.

| Principal Statistics            |      | Woollen<br>cloths | Woollen<br>yarns | Carpets,<br>mats and<br>rugs | Woollen<br>goods,<br>n. e. s. | Total<br>Woollen<br>Textile<br>Industries |
|---------------------------------|------|-------------------|------------------|------------------------------|-------------------------------|-------------------------------------------|
| Establishments                  | No.  | 44                | 27               | 22                           | 26                            | 119                                       |
| Capital invested                | \$   | 20,016,292        | 7,699,902        | 6,446,734                    | 8,680,289                     | 42,843,217                                |
| Employees on salaries-          |      |                   |                  |                              |                               |                                           |
| Male                            | No.  | 235               | 48               | 172                          | 82                            | 537                                       |
| Female                          | No.  | 73                | 19               | 42                           | 22                            | 156                                       |
| Salaries                        | \$   | 706,897           | 149,098          | 461,360                      | 277,973                       | 1,595,328                                 |
| Employees on wages -            |      |                   |                  |                              |                               |                                           |
| Average of -                    |      |                   |                  |                              |                               |                                           |
| Male                            | No.  | 2,132             | 741              | 696                          | 794                           | 4,363                                     |
| Female                          | No.  | 1,705             | 1,017            | 383                          | 243                           | 3,348                                     |
| Wages                           | \$   | 3,217,407         | 1,131,976        | 1,002,325                    | 900,765                       | 6,252,473                                 |
| Outside piece-workers-          |      |                   |                  |                              |                               |                                           |
| Male                            | No.  | 1                 | -                | -                            | -                             | 1                                         |
| Female                          | No.  | 9                 | -                | -                            | -                             | 9                                         |
| Amount paid                     | \$   | 1,181             | -                | -                            | -                             | 1,181                                     |
| Cost of fuel and<br>electricity | \$   | 367,888           | 105,475          | 89,710                       | 100,976                       | 664,049                                   |
| Power employed -                |      |                   |                  |                              |                               |                                           |
| Units                           | No.  | 1,220             | 204              | 265                          | 242                           | 1,931                                     |
| Capacity                        | H.P. | 12,202            | 3,103            | 2,115                        | 6,812                         | 24,232                                    |
| Cost of materials               | \$   | 9,231,712         | 3,962,096        | 2,559,680                    | 3,348,836                     | 19,102,324                                |
| Value of Products               | \$   | 16,241,194        | 7,027,242        | 5,434,555                    | 6,476,608                     | 35,179,599                                |
| Value added by<br>manufacture   | \$   | 7,009,482         | 3,065,146        | 2,874,875                    | 3,127,772                     | 16,077,275                                |

Compared with 1928 there was a decrease of 1 in the number of establishments reporting, an increase of 4 in the number of male employees on salaries, an increase of 19 in the number of females on salaries, an increase of 387 in the number of males employed on wages, a decrease of 253 in the number of females employed on wages, an increase of \$41,846 in the payments to salaried employees, of \$121,876 in the amount paid to wage-earners, a decrease in the cost of materials of \$823,526, an increase of \$492,309 in the value of production. A decrease appears in the cost of fuel amounting to \$30,990, whilst in horsepower capacity there was an increase of 2,900 and in capital investment an increase of \$1,309,895.





# SECTION I. - WOOLLEN CLOTH MILLS

## Principal Statistics compared for Canada and the Provinces

in 1928 and 1929.

A comparison by provinces of the principal statistics in woollen cloth mills for the calendar years 1928 and 1929 is offered in Table 1. The number of mills reporting decreased during the period by 7, while the gross value of products increased by \$1,179,113. 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<br>and New<br>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,  
1929

| Principal Statistics             |      | CANADA     | Ontario    | Quebec    | Nova Scotia<br>and New<br>Brunswick |
|----------------------------------|------|------------|------------|-----------|-------------------------------------|
| Establishments                   | No.  | 44         | 29         | 12        | 3                                   |
| Capital invested                 | \$   | 20,016,292 | 16,382,584 | 2,949,856 | 683,852                             |
| Employees on salaries -          |      |            |            |           |                                     |
| Male                             | No.  | 235        | 193        | 32        | 10                                  |
| Female                           | No.  | 73         | 62         | 8         | 3                                   |
| Salaries                         | \$   | 706,897    | 615,126    | 69,476    | 22,295                              |
| Employees on wages (avge. No.) - |      |            |            |           |                                     |
| Male                             | No.  | 2,132      | 1,763      | 311       | 58                                  |
| Female                           | No.  | 1,705      | 1,345      | 297       | 63                                  |
| Wages                            | \$   | 3,217,407  | 2,710,615  | 445,209   | 61,583                              |
| Cost of fuel and electricity     | \$   | 367,888    | 279,707    | 76,202    | 11,979                              |
| Power employed -                 |      |            |            |           |                                     |
| Units                            | No.  | 1,220      | 1,003      | 211       | 6                                   |
| Capacity                         | H.P. | 12,202     | 9,632      | 2,165     | 405                                 |
| Cost of materials                | \$   | 9,231,712  | 7,944,057  | 1,119,726 | 167,929                             |
| Value of products                | \$   | 16,241,194 | 14,005,835 | 1,920,919 | 314,440                             |
| Value added by manufacture       | \$   | 7,009,482  | 6,061,778  | 801,193   | 143,511                             |

THE UNIVERSITY OF CHICAGO  
DIVISION OF THE PHYSICAL SCIENCES  
DEPARTMENT OF CHEMISTRY  
RESEARCH REPORT NO. 1000  
JANUARY 1960

| Sample | Weight (g) | Volume (ml) | Density (g/ml) | Concentration (M) |
|--------|------------|-------------|----------------|-------------------|
| 1      | 1.000      | 1.000       | 1.000          | 1.000             |
| 2      | 1.000      | 1.000       | 1.000          | 1.000             |
| 3      | 1.000      | 1.000       | 1.000          | 1.000             |
| 4      | 1.000      | 1.000       | 1.000          | 1.000             |
| 5      | 1.000      | 1.000       | 1.000          | 1.000             |
| 6      | 1.000      | 1.000       | 1.000          | 1.000             |
| 7      | 1.000      | 1.000       | 1.000          | 1.000             |
| 8      | 1.000      | 1.000       | 1.000          | 1.000             |
| 9      | 1.000      | 1.000       | 1.000          | 1.000             |
| 10     | 1.000      | 1.000       | 1.000          | 1.000             |

ANALYSES OF THE ABOVE SAMPLES

| Sample | Weight (g) | Volume (ml) | Density (g/ml) | Concentration (M) |
|--------|------------|-------------|----------------|-------------------|
| 1      | 1.000      | 1.000       | 1.000          | 1.000             |
| 2      | 1.000      | 1.000       | 1.000          | 1.000             |
| 3      | 1.000      | 1.000       | 1.000          | 1.000             |
| 4      | 1.000      | 1.000       | 1.000          | 1.000             |
| 5      | 1.000      | 1.000       | 1.000          | 1.000             |
| 6      | 1.000      | 1.000       | 1.000          | 1.000             |
| 7      | 1.000      | 1.000       | 1.000          | 1.000             |
| 8      | 1.000      | 1.000       | 1.000          | 1.000             |
| 9      | 1.000      | 1.000       | 1.000          | 1.000             |
| 10     | 1.000      | 1.000       | 1.000          | 1.000             |



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SECTION I. - WOOLLEN CLOTH MILLS.

PRODUCTION

The production in woollen cloth mills in 1929 is shown for the Dominion in Table 2. There was an increase in value of production of \$1,179,113 as compared with the previous year. The province of Ontario contributed 86.24 per cent of the total value of production, amounting to \$14,005,835; Quebec contributed \$1,920,919 or 11.83 per cent and the Maritime Provinces \$314,440 or 1.93 per cent.

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

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|                                                       | All Wool  |           | Union.<br>Goods<br>Cotton<br>Mixed | Goods Woven on<br>Cotton Warp |         | Selling<br>Value at<br>Factory |
|-------------------------------------------------------|-----------|-----------|------------------------------------|-------------------------------|---------|--------------------------------|
|                                                       | Woollen   | Worsted   |                                    | Woollen                       | Worsted |                                |
|                                                       | Yds.      | Yds.      | Yds.                               | Yds.                          | Yds.    | \$                             |
| Woollen and Worsted<br>Goods -                        |           |           |                                    |                               |         |                                |
| Suitings, Dress Goods                                 |           |           |                                    |                               |         |                                |
| Overcoatings and                                      |           |           |                                    |                               |         |                                |
| Cloakings                                             | 3,267,344 | 1,782,033 | 61,272                             | 749,189                       | 42,919  | 7,907,380                      |
| Flannels for under-<br>wear                           | 5,416     | -         | 180,101                            | 117,243                       | -       | 88,243                         |
| Blankets, all wool<br>value only                      |           |           |                                    |                               |         | 698,925                        |
| Blankets, cotton<br>mixed, value only                 |           |           |                                    |                               |         | 80,692                         |
| Auto cloths                                           |           |           |                                    |                               |         | 598,605                        |
| Carriage cloths<br>and robes                          |           |           |                                    |                               |         | 97,865                         |
| Horse blankets                                        |           |           |                                    |                               |         | 39,712                         |
| Shawls                                                |           |           |                                    |                               |         | 23,274                         |
| Sweaters, cardigan<br>jackets, etc.                   |           |           |                                    |                               |         | 386,292                        |
| Fancy knit goods                                      |           |           |                                    |                               |         | 63,362                         |
| Mackinaw cloths                                       |           |           |                                    |                               |         | 417,277                        |
| Velours and plushes                                   |           |           |                                    |                               |         | 3,997,066                      |
| Wool and cotton felts<br>for pulp and paper<br>making |           |           |                                    |                               |         | 101,818                        |
| Woollen yarns                                         |           |           |                                    |                               |         | 868,882                        |
| Worsted yarns                                         |           |           |                                    |                               |         | 558,033                        |
| Cotton yarns                                          |           |           |                                    |                               |         | 49,564                         |
| Hosiery and underwear                                 |           |           |                                    |                               |         | 2,785                          |
| All other products                                    |           |           |                                    |                               |         | 161,712                        |
| Custom work                                           |           |           |                                    |                               |         | 79,707                         |
| Total value of products                               |           |           |                                    |                               |         | 16,241,194                     |





# SECTION I. - WOOLLEN CLOTH MILLS

## Capital Investment.

The amount of capital invested in the woollen cloth section of the industry in 1929 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 81.84 per cent of the total investment, Quebec 14.74 per cent and the Maritime Provinces 3.42 per cent. Fixed capital increased by \$2,015,340 over 1928, while working capital, more variable in character, decreased by \$273,943, or a net increase in total investment of \$1,741,397.

Table 3. - Capital Invested by Provinces, 1929.

| Provinces                     | Fixed Capital                             | Working Capital                                      |                                            | Total         |
|-------------------------------|-------------------------------------------|------------------------------------------------------|--------------------------------------------|---------------|
|                               | Land, buildings, etc. machinery and tools | Materials and supplies and finished products on hand | Cash, trading and operating accounts, etc. | Capital       |
| CANADA                        | \$ 12,560,903                             | \$ 5,177,516                                         | \$ 2,277,873                               | \$ 20,016,292 |
| Nova Scotia and New Brunswick | 353,688                                   | 142,285                                              | 137,879                                    | 633,852       |
| Quebec                        | 1,880,395                                 | 688,700                                              | 380,761                                    | 2,949,856     |
| Ontario                       | 10,326,820                                | 4,346,531                                            | 1,709,233                                  | 16,382,584    |

## Employment Statistics, 1929.

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 rose from 4,045 persons of both sexes in 1928 to 4,155 in 1929, whilst the total of salaries, wages, etc. rose from \$3,781,749 in 1928 to \$3,925,485 in 1929, being an increase of 110 in the number employed, and an increase of \$143,736 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, 1929.

| Employees by number and sex |     | CANADA    | Ontario   | Quebec  | Maritime Provinces |
|-----------------------------|-----|-----------|-----------|---------|--------------------|
| Salaried employees -        |     |           |           |         |                    |
| Male                        | No. | 235       | 193       | 32      | 10                 |
| Female                      | No. | 73        | 62        | 8       | 3                  |
| Total Salaries              | \$  | 706,897   | 615,126   | 69,476  | 22,295             |
| Wage-earning employees-     |     |           |           |         |                    |
| Male                        | No. | 2,132     | 1,763     | 311     | 58                 |
| Female                      | No. | 1,705     | 1,345     | 297     | 63                 |
| Total wages                 | \$  | 3,217,407 | 2,710,615 | 445,209 | 61,583             |
| Outside piece-workers-      |     |           |           |         |                    |
| Male                        | No. | 1         | 1         | -       | -                  |
| Female                      | No. | 9         | 6         | 3       | -                  |
| Amount paid                 | \$  | 1,181     | 817       | 364     | -                  |
| Total, all employees -      |     |           |           |         |                    |
| Male                        | No. | 2,368     | 1,957     | 343     | 68                 |
| Female                      | No. | 1,787     | 1,413     | 308     | 66                 |
| Salaries and Wages          | \$  | 3,925,485 | 3,326,558 | 515,049 | 83,878             |





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SECTION I. - WOOLLEN CLOTH MILLS

Employment Statistics - Cont'd.

Statistics of employment by months, as per payroll, in the woollen cloth mills of Canada are shown in Table 5, for the calendar year 1929. The maximum of employment was attained in the month of March, with a total of 3,971 of both sexes, whilst the month of minimum employment was that of November with a total of 3,590. The average monthly employment for the year was 3,837 of whom 2,132 were males and 1,705 were females.

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

| Month                                   | Male<br>No. | Female<br>No. | Month     | Male<br>No. | Female<br>No. |
|-----------------------------------------|-------------|---------------|-----------|-------------|---------------|
| January                                 | 2,077       | 1,702         | July      | 2,145       | 1,678         |
| February                                | 2,180       | 1,766         | August    | 2,125       | 1,615         |
| March                                   | 2,222       | 1,749         | September | 2,009       | 1,619         |
| April                                   | 2,157       | 1,730         | October   | 2,040       | 1,701         |
| May                                     | 2,202       | 1,753         | November  | 1,998       | 1,592         |
| June                                    | 2,004       | 1,647         | December  | 1,994       | 1,620         |
| Total employment by months              |             |               |           | 25,153      | 20,172        |
| Average monthly employment for the year |             |               |           | 2,132       | 1,705         |

The operating time of plants and employees in the Dominion is shown in Table 6. Plant operation on full and part time shows a gain per plant of 4.19 days as compared with 1928. The hours of labour by employees show an increase from 9.49 hours per day in 1928 to 9.57 in 1929, whilst weekly hours also rose from the average of 52.88 in 1928 to 53.77 in 1929.

Table 6. - Working time of plants and employees, 1929.

| Number of establishments reporting | 44     |          |
|------------------------------------|--------|----------|
|                                    | Totals | Averages |
| Days plants were in operation      |        |          |
| On full time                       | 9,580  | 217.73   |
| On part time                       | 1,098  | 24.95    |
| Idle                               | 2,698  | 61.32    |
| Hours worked by wage-earners       |        |          |
| Per day or shift                   | 421    | 9.57     |
| Per week                           | 2,366  | 53.77    |

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 59.96 and 39.40. 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 over 10 hours per day, whilst none were employed at the 8 hour day.

Table 7. Hours worked per day by wage-earners in month of highest employment for Canada and the provinces, 1929.

|               | 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        | -                                                                          | 2,692   | 1,769    | 29            | -                                               | 59.96   | 39.40    | .64           |
| Nova Scotia   | -                                                                          | 18      | 31       | -             | -                                               | 36.73   | 63.27    | -             |
| New Brunswick | -                                                                          | -       | 91       | -             | -                                               | -       | 100.00   | -             |
| Quebec        | -                                                                          | 9       | 721      | -             | -                                               | 1.23    | 98.77    | -             |
| Ontario       | -                                                                          | 2,665   | 926      | 29            | -                                               | 73.62   | 25.58    | .80           |





SECTION I. - WOOLLEN CLOTH MILLS

Employment Statistics - Cont'd.

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 9.40 hours per day and 53.77 hours per week in 1929.

Table 7(a) - Hours of Labour per day and per week, for Canada and the Provinces, 1929.

| 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, per establishment |
| CANADA        | 42,223                                                                | 4,490              | 9.40                                  | 2,366                           | 53.77                                                     |
| Nova Scotia   | 472                                                                   | 49                 | 9.63                                  | 109                             | 54.50                                                     |
| New Brunswick | 910                                                                   | 91                 | 10.00                                 | 55                              | 55.00                                                     |
| Quebec        | 7,291                                                                 | 730                | 9.99                                  | 669                             | 55.75                                                     |
| Ontario       | 33,550                                                                | 3,620              | 9.27                                  | 1,533                           | 52.90                                                     |

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 42,213 tons in 1928 to 42,506 tons in 1929. The average price of bituminous coal of all grades was \$6.45 in 1928, as against \$6.30 in 1929. Electricity purchased amounted to \$90,329 in 1928 as compared with an outlay of \$95,504 in 1929.

Table 8. - Fuel Consumption by classes, quantity and value, 1929.

| Classes of fuel                    | Unit of Measure | Quantity | Cost Value delivered at Mill |
|------------------------------------|-----------------|----------|------------------------------|
| Bituminous coal                    | ton             | 42,506   | 267,889                      |
| Anthracite coal                    | "               | 23       | 304                          |
| Gasoline                           | gallon          | 1,426    | 426                          |
| Wood                               | cord            | 902      | 3,458                        |
| Coke                               | ton             | 24       | 204                          |
| All other fuel                     | -               | -        | 103                          |
| Cost of Fuel                       | -               | -        | 272,384                      |
| Cost of Electricity                | -               | -        | 95,504                       |
| Total Cost of Fuel and Electricity | -               | -        | 367,888                      |

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

RESEARCH REPORT  
ON THE  
STRUCTURE OF THE  
CRYSTALLINE  
PHASE OF  
POLYETHYLENE  
BY  
J. D. BOWEN  
AND  
R. W. L. MCGOWAN

| TABLE I                          |       | TABLE II                         |       |
|----------------------------------|-------|----------------------------------|-------|
| Sample                           | 1     | Sample                           | 2     |
| Crystallinity, %                 | 95    | Crystallinity, %                 | 95    |
| Density, g./cc.                  | 0.960 | Density, g./cc.                  | 0.960 |
| Length, Å.                       | 100   | Length, Å.                       | 100   |
| Width, Å.                        | 100   | Width, Å.                        | 100   |
| Height, Å.                       | 100   | Height, Å.                       | 100   |
| Volume, Å. <sup>3</sup>          | 100   | Volume, Å. <sup>3</sup>          | 100   |
| Mass, g.                         | 100   | Mass, g.                         | 100   |
| Heat of fusion, cal./g.          | 100   | Heat of fusion, cal./g.          | 100   |
| Heat of crystallization, cal./g. | 100   | Heat of crystallization, cal./g. | 100   |

DISCUSSION  
The results of the x-ray diffraction studies of the crystalline phase of polyethylene are presented in Table I. The crystallinity of the samples is 95%, which is in good agreement with the results of other workers. The density of the samples is 0.960 g./cc., which is also in good agreement with the results of other workers. The length, width, and height of the unit cell are 100 Å., 100 Å., and 100 Å., respectively. The volume of the unit cell is 100 Å.<sup>3</sup> and the mass is 100 g. The heat of fusion is 100 cal./g. and the heat of crystallization is 100 cal./g.

| TABLE III                        |       | TABLE IV                         |       |
|----------------------------------|-------|----------------------------------|-------|
| Sample                           | 3     | Sample                           | 4     |
| Crystallinity, %                 | 95    | Crystallinity, %                 | 95    |
| Density, g./cc.                  | 0.960 | Density, g./cc.                  | 0.960 |
| Length, Å.                       | 100   | Length, Å.                       | 100   |
| Width, Å.                        | 100   | Width, Å.                        | 100   |
| Height, Å.                       | 100   | Height, Å.                       | 100   |
| Volume, Å. <sup>3</sup>          | 100   | Volume, Å. <sup>3</sup>          | 100   |
| Mass, g.                         | 100   | Mass, g.                         | 100   |
| Heat of fusion, cal./g.          | 100   | Heat of fusion, cal./g.          | 100   |
| Heat of crystallization, cal./g. | 100   | Heat of crystallization, cal./g. | 100   |

CONCLUSIONS  
The results of the x-ray diffraction studies of the crystalline phase of polyethylene are presented in Table I. The crystallinity of the samples is 95%, which is in good agreement with the results of other workers. The density of the samples is 0.960 g./cc., which is also in good agreement with the results of other workers. The length, width, and height of the unit cell are 100 Å., 100 Å., and 100 Å., respectively. The volume of the unit cell is 100 Å.<sup>3</sup> and the mass is 100 g. The heat of fusion is 100 cal./g. and the heat of crystallization is 100 cal./g.



# 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 1929. Electric motors were still the principal power used, having increased by 364 units, with an aggregate of 1,394 horse power than in 1928. Boilers installed for any purpose numbered 63 with a boiler horse power capacity of 7,634.

Table 9. - Power Installation, 1929.

| Classes of Power                            | Number of Units | H.P. according to manufacturers' rating |
|---------------------------------------------|-----------------|-----------------------------------------|
| Steam engines and turbines                  | 12              | 2,110                                   |
| Oil, gas and gasoline engines               | 1               | 20                                      |
| Hydraulic turbines or water wheels          | 23              | 1,721                                   |
| Electric motors operated by purchased power | 1,184           | 8,351                                   |
| Total power used in manufacturing           | 1,220           | 12,202                                  |
| Electric motors operated by owned power     | 17              | 665                                     |
| Total electric motors                       | 1,201           | 9,016                                   |

## 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 1929 was \$9,231,712 or \$39,149 less than the preceding year. Wool constituted 33.84 per cent of the total cost of materials, yarns purchased of all kinds, 42.40 per cent and all other materials 23.76 per cent.

Table 10. - Materials used by Principal Classes, 1929.

|                                         | Unit of Measure | Quantity  | Cost Value at Mill or Factory. |
|-----------------------------------------|-----------------|-----------|--------------------------------|
|                                         |                 |           | \$                             |
| Domestic wools:-                        |                 |           |                                |
| Fleece or greasy wools                  | Pounds          | 1,722,808 | 460,679                        |
| Scoured, pulled and washed wools        | "               | 488,810   | 177,972                        |
| Foreign wools:-                         |                 |           |                                |
| Fleece or greasy wools                  | "               | 2,910,598 | 1,044,733                      |
| Scoured, pulled and washed wools        | "               | 2,873,558 | 1,440,440                      |
| Mohair                                  | "               | 21,086    | 9,870                          |
| Other animal hair                       | "               | 14,005    | 7,945                          |
| Cotton, raw                             | "               | 392,479   | 74,097                         |
| Rags, clippings, etc.                   | "               | 1,007,085 | 135,030                        |
| Wools of wool                           | "               | 165,647   | 99,356                         |
| Tops of wool                            | "               | 1,287,133 | 809,436                        |
| Wool waste                              | "               | 877,762   | 186,690                        |
| Shoddy                                  | "               | 521,238   | 170,683                        |
| Artificial silk tops and waste          | "               | 352       | 206                            |
| Silk waste                              | "               | 957       | 273                            |
| Yarns of all kinds:-                    |                 |           |                                |
| Artificial silk                         | "               | 117,278   | 91,667                         |
| Cotton                                  | "               | 2,222,333 | 956,645                        |
| Cotton, mercerized                      | "               | 4,815     | 7,668                          |
| Silk and Silk mixed                     | "               | 16,373    | 53,975                         |
| Woollen                                 | "               | 26,479    | 33,663                         |
| Worsted                                 | "               | 1,694,938 | 1,817,874                      |
| Mohair                                  | "               | 803,359   | 952,868                        |
| All other materials                     | -               | -         | 349,653                        |
| Chemicals, dyestuffs, and mill supplies | -               | -         | 350,289                        |
| Total Cost of Materials                 | -               | -         | 9,231,712                      |





SECTION I. - WOOLLEN CLOTH MILLS

Equipment in Woollen Cloth Mills.

The equipment installed in the mills operating in 1929 consisted of 221 sets of cards of specified widths, the number of each width being indicated below:-

| Under 40<br>inches | 40<br>inches | 44<br>inches | 48<br>inches | 54<br>inches | 56<br>inches | 60<br>inches | 66<br>inches | 72<br>inches<br>& over | Total |
|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------------|-------|
| 12                 | 27           | 8            | 66           | 10           | -            | 76           | 5            | 17                     | 221   |

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

| 1<br>Cylinders | 2<br>Cylinders | 3<br>Cylinders | 4<br>Cylinders | 5<br>Cylinders | 6<br>Cylinders | 7<br>Cylinders | Total |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------|
| 18             | 4              | 122            | 58             | 13             | 6              | -              | 221   |

The number of spindles and looms operating in 1929 is summarized in the following tabular statement.

| Spindles and looms                   | Woollen<br>No. | Worsted<br>No. | Shoddy<br>No. | Cotton<br>No. | Total  |
|--------------------------------------|----------------|----------------|---------------|---------------|--------|
| Mule spinning spindles               | 71,280         | -              | -             | 1,300         | 72,580 |
| Frame spinning spindles              | 240            | 16,000         | -             | 2,040         | 18,280 |
| Doubling and twisting spindles       | 2,677          | 4,308          | -             | 2,568         | 9,553  |
| Broad looms (50" reed space or over) | 1,128          | 353            | -             | -             | 1,481  |
| Narrow looms (under 50" reed space)  | 52             | 4              | -             | 116           | 172    |
| Hand looms                           | 1              | -              | -             | -             | 1      |

| <u>Other Equipment</u> | <u>Number</u> |
|------------------------|---------------|
| Wool combing machines  | 23            |
| Pickers                | 48            |
| Garnet machines        | 11            |





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 1929. The total value of all imports imported for consumption during the year amounted to \$48,577,963 of which raw materials represented \$11,482,362, partly manufactured goods \$5,884,858, and finished products \$31,210,743.

Table 11. Imports of Wool and its Manufactures by Principal Countries,  
1929.

| Articles                                                           |     | Quantity  | Value     |
|--------------------------------------------------------------------|-----|-----------|-----------|
| Raw Materials -                                                    |     |           | \$        |
| Wool in the grease-                                                |     |           |           |
| United Kingdom                                                     | lb. | 1,163,113 | 486,748   |
| United States                                                      |     | 345,336   | 117,446   |
| Australia                                                          |     | 221,836   | 86,369    |
| New Zealand                                                        |     | 1,871,828 | 652,338   |
| Other Countries                                                    |     | 14,853    | 5,492     |
| TOTAL                                                              |     | 3,616,066 | 1,348,393 |
| Wool, washed or scoured, etc. n.o.p.                               |     |           |           |
| United Kingdom                                                     |     | 3,365,200 | 1,747,374 |
| United States                                                      |     | 1,728,699 | 703,149   |
| Australia                                                          |     | 239,492   | 164,504   |
| British South Africa                                               |     | 223,898   | 104,764   |
| New Zealand                                                        |     | 820,829   | 290,014   |
| Other Countries                                                    |     | 273,554   | 146,255   |
| TOTAL                                                              |     | 6,651,472 | 3,156,560 |
| Wool, pulled or Sliped -                                           |     |           |           |
| United Kingdom                                                     | lb. | 683,782   | 268,602   |
| United States                                                      |     | 142,656   | 50,962    |
| New Zealand                                                        |     | 241,508   | 86,642    |
| Other Countries                                                    |     | 32,540    | 6,994     |
| TOTAL                                                              |     | 1,090,786 | 412,200   |
| Hair of the camel, alpaca, etc. not further prepared than combed - |     |           |           |
| United Kingdom                                                     | lb. | 126,976   | 61,430    |
| United States                                                      |     | 498,673   | 137,917   |
| Australia                                                          |     | -         | -         |
| New Zealand                                                        |     | 18,037    | 6,212     |
| Other Countries                                                    |     | 84,060    | 4,200     |
| TOTAL                                                              |     | 727,746   | 209,762   |
| Noils -                                                            |     |           |           |
| United Kingdom                                                     | lb. | 427,035   | 201,685   |
| United States                                                      |     | 20,151    | 9,300     |
| Other Countries                                                    |     | 8,499     | 3,654     |
| TOTAL                                                              |     | 455,685   | 214,639   |
| Worsted Tops -                                                     |     |           |           |
| United Kingdom                                                     | lb. | 6,202,910 | 3,869,541 |
| United States                                                      |     | 23,227    | 22,780    |
| Australia                                                          |     | 208,313   | 206,157   |
| France                                                             |     | 236,076   | 219,307   |
| Other Countries                                                    |     | 14,379    | 11,884    |
| TOTAL                                                              |     | 6,684,905 | 4,330,269 |
| Garmented wool waste in the white, etc. -                          |     |           |           |
| United Kingdom                                                     | lb. | 28,138    | 16,361    |
| United States                                                      |     | 6,069     | 1,937     |
| TOTAL                                                              |     | 34,207    | 18,298    |





SECTION I.-WOOLLEN CLOTH MILLS.

Table 11. - Imports of Wool and its Manufactures by Principal Countries, 1929. (Cont'd.)

| Articles                                                                                                                                                          | Quantity  | Value     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|
| Raw materials (Cont'd).                                                                                                                                           |           | \$        |
| Rags, waste, etc. - n.o.p. cwt.                                                                                                                                   |           |           |
| United Kingdom                                                                                                                                                    | 120,035   | 382,501   |
| United States                                                                                                                                                     | 234,203   | 1,189,350 |
| Netherlands                                                                                                                                                       | 14,881    | 85,100    |
| Japan                                                                                                                                                             | 5,660     | 12,332    |
| Other Countries                                                                                                                                                   | 29,994    | 122,906   |
| TOTAL                                                                                                                                                             | 404,773   | 1,792,241 |
| Partly manufactured materials -                                                                                                                                   |           |           |
| Yarns composed wholly or in part of wool, etc., not containing silk, etc. (9 mos.) lb.                                                                            |           |           |
| United Kingdom                                                                                                                                                    | 121,511   | 182,971   |
| United States                                                                                                                                                     | 4,644     | 4,606     |
| Other Countries                                                                                                                                                   | 3,229     | 4,866     |
| TOTAL                                                                                                                                                             | 129,384   | 192,443   |
| Yarns and warps composed wholly or in part of wool, etc., imported by manufacturers, etc. lb.                                                                     |           |           |
| United Kingdom                                                                                                                                                    | 1,505,698 | 1,104,588 |
| United States                                                                                                                                                     | 1,555     | 2,128     |
| Other Countries                                                                                                                                                   | 13,587    | 23,926    |
| TOTAL                                                                                                                                                             | 1,520,840 | 1,130,642 |
| 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 (9 mos.) lb. |           |           |
| United Kingdom                                                                                                                                                    | 2,254,820 | 2,492,967 |
| United States                                                                                                                                                     | 16,882    | 15,794    |
| France                                                                                                                                                            | 104,157   | 90,014    |
| Other Countries                                                                                                                                                   | 10,399    | 9,743     |
| TOTAL                                                                                                                                                             | 2,386,258 | 2,608,518 |
| Yarns composed wholly or in chief value of merino wool, but not containing silk, etc. lb.                                                                         |           |           |
| United Kingdom                                                                                                                                                    | 1,642,004 | 1,925,289 |
| Belgium                                                                                                                                                           | 9,243     | 14,160    |
| France                                                                                                                                                            | 10,653    | 13,767    |
| United States                                                                                                                                                     | 18        | 39        |
| TOTAL                                                                                                                                                             | 1,661,918 | 1,953,255 |
| 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                                                                                                                                                    | 2,324,564 | 949,962   |
| Belgium                                                                                                                                                           | 371,623   | 135,939   |
| France                                                                                                                                                            | 1,186,918 | 477,354   |
| Other Countries                                                                                                                                                   | 10,041    | 5,009     |
| TOTAL                                                                                                                                                             | 3,893,146 | 1,568,264 |
| Woven fabrics, consisting of cotton warps with wefts of lustre wool, etc. yd.                                                                                     |           |           |
| United Kingdom                                                                                                                                                    | 611,187   | 366,429   |
| United States                                                                                                                                                     | 2,359     | 1,798     |
| Other Countries                                                                                                                                                   | 4,302     | 2,341     |
| TOTAL                                                                                                                                                             | 617,848   | 370,568   |





Table 11. - Imports of Wool and its Manufactures by Principal Countries 1929. (Cont'd).

| Articles                                                                                                        | Quantity  | Value      |
|-----------------------------------------------------------------------------------------------------------------|-----------|------------|
| Wholly manufactured products (Cont'd).                                                                          |           |            |
| Flannels, not exceeding in weight 5 oz. to the square yard - yd.                                                |           |            |
| United Kingdom                                                                                                  | 64,750    | 23,354     |
| United States                                                                                                   | 873       | 937        |
| France                                                                                                          | 27,572    | 18,174     |
| Other Countries                                                                                                 | 556       | 399        |
| TOTAL                                                                                                           | 93,751    | 42,864     |
| Woven fabrics composed wholly or in part of wool etc. not exceeding in weight 5 oz. to the sq.yd.- yd.          |           |            |
| United Kingdom                                                                                                  | 308,307   | 164,485    |
| United States                                                                                                   | 1,237     | 895        |
| France                                                                                                          | 414,482   | 259,856    |
| Other Countries                                                                                                 | 66,000    | 37,319     |
| TOTAL                                                                                                           | 790,026   | 462,555    |
| Knitted fabrics composed wholly or in part of wool, etc. not exceeding in weight 5 oz. to the square yard - yd. |           |            |
| United Kingdom                                                                                                  | 22,636    | 10,501     |
| United States                                                                                                   | 171       | 257        |
| Other Countries                                                                                                 | 767       | 1,150      |
| TOTAL                                                                                                           | 23,574    | 11,908     |
| Felt cloth, n.o.p.-                                                                                             |           |            |
| United Kingdom                                                                                                  | 2,268     | 7,138      |
| United States                                                                                                   | 14,345    | 12,048     |
| Belgium                                                                                                         | 14,699    | 24,586     |
| Other Countries                                                                                                 | 368       | 878        |
| TOTAL                                                                                                           | 31,680    | 44,650     |
| Overcoatings -                                                                                                  |           |            |
| United Kingdom                                                                                                  | 897,190   | 1,086,341  |
| United States                                                                                                   | 3,673     | 4,717      |
| France                                                                                                          | 71,051    | 96,811     |
| Germany                                                                                                         | 112,739   | 134,731    |
| Other Countries                                                                                                 | 82,915    | 114,661    |
| TOTAL                                                                                                           | 1,167,568 | 1,437,261  |
| Tweeds -                                                                                                        |           |            |
| United Kingdom                                                                                                  | 3,282,443 | 3,038,906  |
| United States                                                                                                   | 18,840    | 35,113     |
| France                                                                                                          | 78,535    | 123,068    |
| Germany                                                                                                         | 85,986    | 99,949     |
| Czecho-Slovakia                                                                                                 | 16,013    | 17,084     |
| Netherlands                                                                                                     | 7,220     | 12,287     |
| Other Countries                                                                                                 | 45,561    | 40,589     |
| TOTAL                                                                                                           | 3,534,598 | 3,366,996  |
| Worsted and serges including coatings - yd.                                                                     |           |            |
| United Kingdom                                                                                                  | 7,075,237 | 9,597,097  |
| United States                                                                                                   | 37,267    | 70,761     |
| France                                                                                                          | 881,167   | 1,121,591  |
| Germany                                                                                                         | 385,632   | 492,215    |
| Czecho-Slovakia                                                                                                 | 47,766    | 67,777     |
| Italy                                                                                                           | 144,151   | 82,063     |
| Netherlands                                                                                                     | 67,707    | 153,797    |
| Sweden                                                                                                          | 60,267    | 66,916     |
| Other Countries                                                                                                 | 19,888    | 21,056     |
| TOTAL                                                                                                           | 8,719,082 | 11,673,273 |





SECTION I. - WOOLLEN CLOTH MILLS.

Table 11. - Imports of Wool and its Manufactures by Principal Countries 1929 (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                                                                                                                                      |  | 2,799,122 | 2,551,998 |
| United States                                                                                                                                       |  | 271,575   | 295,174   |
| France                                                                                                                                              |  | 610,942   | 718,780   |
| Germany                                                                                                                                             |  | 265,788   | 306,580   |
| Other Countries                                                                                                                                     |  | 225,887   | 228,700   |
| TOTAL                                                                                                                                               |  | 4,173,314 | 4,101,232 |
| Knitted fabrics composed wholly or part of wool, etc. n.o.p. -                                                                                      |  | yd.       |           |
| United Kingdom                                                                                                                                      |  | 18,849    | 21,948    |
| United States                                                                                                                                       |  | 3,732     | 4,405     |
| Other Countries                                                                                                                                     |  | 11,573    | 12,192    |
| TOTAL                                                                                                                                               |  | 34,254    | 38,505    |
| Woven or braided fabrics, not exceeding 12" in width whether with cut pile or not composed wholly or in part wool, etc.-                            |  | yd.       |           |
| United Kingdom                                                                                                                                      |  | -         | 1,589     |
| United States                                                                                                                                       |  | -         | 2,511     |
| Other Countries                                                                                                                                     |  | -         | 379       |
| TOTAL                                                                                                                                               |  | -         | 4,479     |
| Woven fabrics with cut piles or wholly or in part of wool etc., n.o.p. -                                                                            |  | yd.       |           |
| United Kingdom                                                                                                                                      |  | 278,410   | 601,472   |
| United States                                                                                                                                       |  | 27,049    | 76,081    |
| Germany                                                                                                                                             |  | 76,400    | 162,333   |
| Other Countries                                                                                                                                     |  | 7,404     | 16,115    |
| TOTAL                                                                                                                                               |  | 389,263   | 856,002   |
| Shawls, wool - value only                                                                                                                           |  |           |           |
| United Kingdom                                                                                                                                      |  | -         | 33,496    |
| United States                                                                                                                                       |  | -         | 4,706     |
| Other Countries                                                                                                                                     |  | -         | 9,709     |
| TOTAL                                                                                                                                               |  | -         | 47,911    |
| Shirts, wool -                                                                                                                                      |  | doz.      |           |
| United Kingdom                                                                                                                                      |  | 288       | 5,053     |
| United States                                                                                                                                       |  | 38        | 613       |
| Other Countries                                                                                                                                     |  | 14        | 137       |
| TOTAL                                                                                                                                               |  | 340       | 5,808     |
| Socks and stockings, wholly or in part of wool, but not containing silk or artificial silk valued at more than \$1.50 per lb. -                     |  | doz.pr.   |           |
| United Kingdom                                                                                                                                      |  | 434,223   | 1,988,237 |
| United States                                                                                                                                       |  | 12,816    | 40,642    |
| Other Countries                                                                                                                                     |  | 7,658     | 47,107    |
| TOTAL                                                                                                                                               |  | 454,697   | 2,075,986 |
| Socks and stockings wholly or in part of wool, etc., but not containing silk, etc. valued at more than 30¢ per lb. but not exceeding \$1.50 per lb. |  | doz.pr.   |           |
| United Kingdom                                                                                                                                      |  | 80,860    | 259,501   |
| United States                                                                                                                                       |  | 938       | 2,653     |
| Other Countries                                                                                                                                     |  | 548       | 1,673     |
| TOTAL                                                                                                                                               |  | 82,346    | 263,827   |





SECTION I. - WOOLLEN CLOTH MILLS.

Table 11. - Imports of Wool and Its Manufactures by Principal Countries, 1929 (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                                                                                 | 26,897    | 52,303    |
| United States                                                                                  | 783       | 1,898     |
| Other Countries                                                                                | 261       | 589       |
| TOTAL                                                                                          | 27,941    | 54,790    |
| Underwear, knitted wool valued at 90¢ per lb or less, (value only)                             |           |           |
| United Kingdom                                                                                 | -         | 385       |
| United States                                                                                  | -         | 1,967     |
| Other Countries                                                                                | -         | 1,078     |
| TOTAL                                                                                          | -         | 3,430     |
| Underwear, knitted wool valued at more than 90¢ per lb. (value only)                           |           |           |
| United Kingdom                                                                                 | -         | 325,007   |
| United States                                                                                  | -         | 6,431     |
| Other Countries                                                                                | -         | 13,185    |
| TOTAL                                                                                          | -         | 344,623   |
| Clothing, women's and children's outer garments, wool, (value only)                            |           |           |
| United Kingdom                                                                                 | -         | 237,046   |
| United States                                                                                  | -         | 290,071   |
| France                                                                                         | -         | 61,967    |
| Other Countries                                                                                | -         | 26,642    |
| TOTAL                                                                                          | -         | 615,726   |
| Clothing and wearing apparel, n.o.p. composed wholly or in part of wool, (value only)          |           |           |
| United Kingdom                                                                                 | -         | 1,359,864 |
| United States                                                                                  | -         | 280,857   |
| France                                                                                         | -         | 29,637    |
| Germany                                                                                        | -         | 9,346     |
| Japan                                                                                          | -         | 12,441    |
| Other Countries                                                                                | -         | 31,509    |
| TOTAL                                                                                          | -         | 1,723,654 |
| Blankets, household, n.o.p. not to include horse blankets, etc. lb.                            |           |           |
| United Kingdom                                                                                 | 166,242   | 850,703   |
| United States                                                                                  | 44,099    | 122,013   |
| Germany                                                                                        | 34,880    | 35,078    |
| Other Countries                                                                                | 11,215    | 27,662    |
| TOTAL                                                                                          | 256,436   | 1,035,456 |
| Felt, pressed of all kinds in the web, etc. lb.                                                |           |           |
| United Kingdom                                                                                 | 54,107    | 36,432    |
| United States                                                                                  | 740,017   | 135,878   |
| Czecho-Slovakia                                                                                | 119,994   | 66,459    |
| Germany                                                                                        | 161,635   | 103,989   |
| Other Countries                                                                                | 19,440    | 13,510    |
| TOTAL                                                                                          | 1,095,193 | 356,268   |
| Rugs, railway, steamer, lounge, automobile, etc. (value only)                                  |           |           |
| United Kingdom                                                                                 | -         | 152,029   |
| United States                                                                                  | -         | 6,019     |
| Other Countries                                                                                | -         | 13,499    |
| TOTAL                                                                                          | -         | 171,547   |
| Articles made from woven fabrics, etc. wholly or in part of wool, etc. (value only)            |           |           |
| United Kingdom                                                                                 | -         | 174,497   |
| United States                                                                                  | -         | 314,016   |
| France                                                                                         | -         | 19,872    |
| Germany                                                                                        | -         | 10,112    |
| Switzerland                                                                                    | -         | 1,352     |
| Other Countries                                                                                | -         | 13,311    |
| TOTAL                                                                                          | -         | 533,160   |





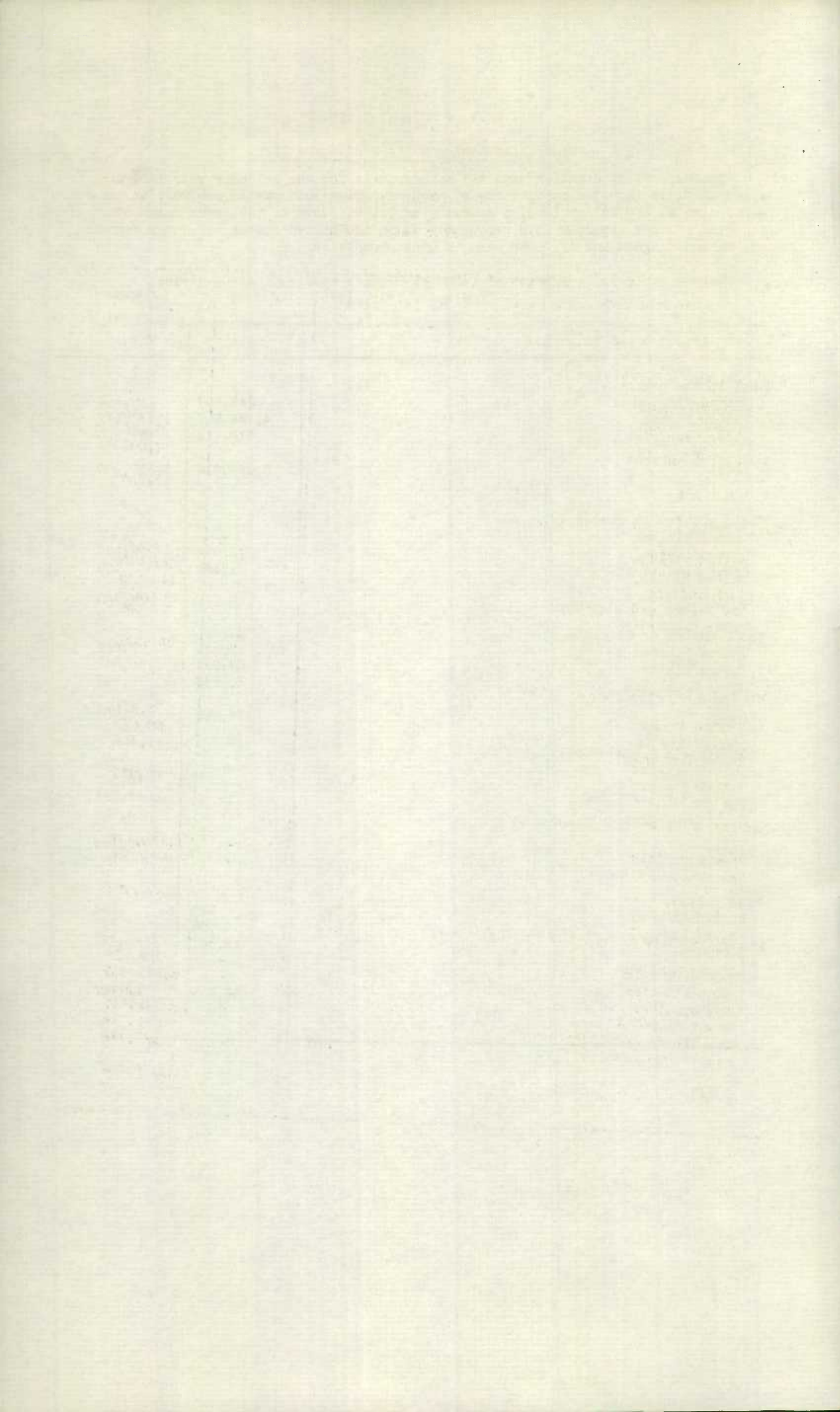
SECTION I. - WOOLLEN CLOTH MILLS.

Exports of Wool and Its Products - 1929.

The exports of Canadian wool and manufactures for the calendar year 1929 are shown in Table 12. The total value of exports during 1929 was \$2,135,082, as compared with \$3,420,481 in 1928, a decrease of \$1,285,399. Of the total value of Canadian produce exported 71.6 per cent went to the United States, 10.7 per cent to the United Kingdom and 17.7 per cent to Other Countries.

Table 12. - Exports of Canadian Produce by Principal Countries,  
Calendar Year, 1929.

| Articles and Countries      |     | Quantity  | Value     |
|-----------------------------|-----|-----------|-----------|
|                             |     |           | \$        |
| Wool in the grease -        | lb. |           |           |
| United Kingdom              |     | 998,697   | 216,252   |
| United States               |     | 4,733,507 | 1,330,017 |
| Other Countries             |     | 110,812   | 22,320    |
| TOTAL                       |     | 5,843,016 | 1,569,080 |
| Wool, scoured or washed -   | lb. |           |           |
| United Kingdom              |     | -         | -         |
| United States               |     | 118,990   | 36,375    |
| Other Countries             |     | 1,366     | 408       |
| TOTAL                       |     | 120,356   | 36,783    |
| Wool, pulled or Sliped -    | lb. |           |           |
| United Kingdom              |     | 7,214     | 3,019     |
| United States               |     | 89,091    | 46,542    |
| Other Countries             |     | 30,148    | 15,143    |
| TOTAL                       |     | 126,453   | 64,704    |
| Wool Carpets - (value only) |     |           |           |
| United Kingdom              |     | -         | 2,749     |
| United States               |     | -         | 6,373     |
| New Zealand                 |     | -         | 42,817    |
| Other Countries             |     | -         | 23,259    |
| TOTAL                       |     | -         | 75,198    |
| Wool Fabrics                | Yd. |           |           |
| United Kingdom              |     | 130       | 683       |
| United States               |     | 305       | 952       |
| Newfoundland                |     | 16,392    | 20,731    |
| Other Countries             |     | -         | -         |
| TOTAL                       |     | 16,827    | 22,366    |





SECTION I. - WOOLLEN CLOTH MILLS.

Table 12. - Exports of Canadian Produce by Principal Countries,  
Calendar Year, 1929.

| Articles and Countries                    | Quantity | Value     |
|-------------------------------------------|----------|-----------|
|                                           |          | \$        |
| Wool underwear - (value only)             |          |           |
| United Kingdom                            | -        | 22        |
| United States                             | -        | 1,841     |
| Newfoundland                              | -        | 9,229     |
| Other Countries                           | -        | 2,608     |
| T O T A L                                 | -        | 13,700    |
| Wool clothing, n.o.p. - (value only)      |          |           |
| United Kingdom                            | -        | 3,442     |
| United States                             | -        | 56,900    |
| Newfoundland                              | -        | 146,638   |
| St. Pierre and Miquelon                   | -        | 29,216    |
| Other Countries                           | -        | 49,096    |
| T O T A L                                 | -        | 285,322   |
| Wool manufactures, n.o.p. - (value only)  |          |           |
| United Kingdom                            | -        | 2,851     |
| United States                             | -        | 50,625    |
| Other Countries                           | -        | 14,444    |
| T O T A L                                 | -        | 67,920    |
| Summary of Exports by Classes -           |          |           |
| Raw Materials                             | -        | 1,670,576 |
| Manufactured goods                        | -        | 464,506   |
| T O T A L                                 | -        | 2,135,082 |
| Summary of Exports by Principal Countries |          |           |
| United Kingdom                            | -        | 229,018   |
| United States                             | -        | 1,529,625 |
| Newfoundland                              | -        | 176,628   |
| New Zealand                               | -        | 42,817    |
| St. Pierre and Miquelon                   | -        | 29,216    |
| Other Countries                           | -        | 127,778   |
| T O T A L                                 | -        | 2,135,082 |





SECTION II. - Woollen Yarns

Statistics of the woollen yarn industry in Canada for the calendar year 1929 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 1927, 1928 and 1929.

Table 1.- Principal Statistics of the Woollen Yarn Industry, 1927-1929.

| Principal Statistics          |      | 1927      | 1928      | 1929      |
|-------------------------------|------|-----------|-----------|-----------|
| Establishments reporting      | No.  | 17        | 20        | 27        |
| Capital invested              | \$   | 9,761,057 | 8,810,695 | 7,699,902 |
| Employees on salaries -       |      |           |           |           |
| Male                          | No.  | 44        | 50        | 48        |
| Female                        | "    | 20        | 27        | 19        |
| Salaries                      | \$   | 173,311   | 181,236   | 149,098   |
| Employees on wages, average - |      |           |           |           |
| Male                          | No.  | 714       | 757       | 741       |
| Female                        | "    | 870       | 1,045     | 1,017     |
| Wages                         | \$   | 1,117,048 | 1,235,064 | 1,131,976 |
| Power installed -             |      |           |           |           |
| Units                         | No.  | 198       | 217       | 204       |
| Capacity                      | H.P. | 3,240     | 3,908     | 3,103     |
| Cost of fuel                  | \$   | 99,621    | 77,469    | 39,217    |
| Cost of electricity           | \$   | 47,621    | 53,691    | 66,258    |
| Cost of materials             | \$   | 4,455,941 | 4,789,168 | 3,962,096 |
| Value of products             | \$   | 6,944,765 | 7,706,740 | 7,027,242 |
| Value added by manufacture    | \$   | 2,488,824 | 2,917,572 | 3,065,146 |

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 fell from \$7,706,740 in 1928 to \$7,027,242 in 1929, or a decrease of 8.8 per cent. The province of Ontario alone accounted for 55.66 per cent of the total production in the Dominion.

Table 2.- Production of Woollen Yarns, etc. 1929.

| Articles produced                    | Unit of Measure | Quantity  | Selling Value at mill or Factory |
|--------------------------------------|-----------------|-----------|----------------------------------|
| Woollen yarns                        | pound           | 2,584,430 | \$ 901,828                       |
| Worsted yarns                        | "               | 4,629,628 | 4,641,251                        |
| Cotton yarns                         | "               | 162,216   | 47,497                           |
| Wool waste and noils                 | "               | 102,047   | 24,913                           |
| Wool felts for pulp and paper making | "               | 119,082   | 187,332                          |
| Carpets, velvet, etc. cut pile       | lineal yd.      | 55,674    | 91,052                           |
| Carpets, Axminster, Wilton, etc.     | " "             | 164,040   | 600,352                          |
| Carpets, tapestry, Brussels, etc.    | " "             | 177,132   | 197,808                          |
| Flannels                             | " "             | 296,815   | 135,967                          |
| Botany Jersey Cloth                  | " "             | 56,320    | 67,583                           |
| Glove, shoe and rubber linings       | pound           | 55,953    | 44,762                           |
| All other products (value only)      | -               | -         | 68,693                           |
| Received for custom work             | -               | -         | 18,004                           |
| Total value of products              | -               | -         | 7,027,242                        |





Size of Establishments

Woollen Yarns -1929.

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 1929 the number of factories in operation was 27 with a total capitalization of \$7,699,902, - a gross value of production amounting to \$7,027,242 and a total employment of 1,825. Seven establishments had a total capital investment of \$6,327,686 or 82.2 per cent of the total capitalization and an average investment of \$903,955 per establishment. Seven firms reported a total production of \$5,934,025 or 84.1 per cent of the total gross value of production and an average output of \$847,718 per establishment. In employment 8 establishments had 1,541 persons on their pay rolls being an average of 193 per factory or 84.4 per cent of the total employment.

Woollen Yarns

|                            | 1 9 2 8                         |                           |                                                            | 1 9 2 9                         |                           |                                                            |
|----------------------------|---------------------------------|---------------------------|------------------------------------------------------------|---------------------------------|---------------------------|------------------------------------------------------------|
|                            | Estab-<br>lish-<br>ments<br>No. | Number<br>of<br>Employees | Average No.<br>of Employ-<br>ees per<br>Establish-<br>ment | Estab-<br>lish-<br>ments<br>No. | Number<br>of<br>Employees | Average No.<br>of Employ-<br>ees per<br>Establish-<br>ment |
| <u>Employees</u>           |                                 |                           |                                                            |                                 |                           |                                                            |
| Under 20                   | 8                               | 38                        | 4.75                                                       | 15                              | 74                        | 4.93                                                       |
| 20 to under 50             | 3                               | 105                       | 35.00                                                      | 2                               | 79                        | 39.50                                                      |
| 50 to under 100            | 2                               | 170                       | 85.00                                                      | 2                               | 131                       | 65.50                                                      |
| 100 to under 200           | 4                               | 502                       | 125.50                                                     | 6                               | 827                       | 137.83                                                     |
| 200 to under 500           | 3                               | 1,074                     | 358.00                                                     | 2                               | 714                       | 357.00                                                     |
| 500 and over               | -                               | -                         | -                                                          | -                               | -                         | -                                                          |
| T O T A L                  | 20                              | 1,889                     | 94.45                                                      | 27                              | 1,825                     | 67.59                                                      |
|                            | Estab-<br>lish-<br>ments<br>No. | Capitaliz-<br>ation<br>\$ | Average<br>Capital<br>per estab-<br>lishment<br>\$         | Estab-<br>lish-<br>ments<br>No. | Capitaliz-<br>ation<br>\$ | Average<br>Capital<br>per estab-<br>lishment<br>\$         |
| <u>Capital Invested</u>    |                                 |                           |                                                            |                                 |                           |                                                            |
| Under 50,000               | 8                               | 133,532                   | 16,691                                                     | 14                              | 128,280                   | 9,163                                                      |
| 50,000 to under 100,000    | 1                               | 69,632                    | 69,632                                                     | 1                               | 50,674                    | 50,674                                                     |
| 100,000 to under 200,000   | 1                               | 124,663                   | 124,663                                                    | 1                               | 127,908                   | 127,908                                                    |
| 200,000 to under 500,000   | 4                               | 1,012,298                 | 253,074                                                    | 4                               | 1,065,354                 | 266,338                                                    |
| 500,000 to under 1,000,000 | 2                               | 1,686,669                 | 843,335                                                    | 6                               | 4,393,810                 | 732,302                                                    |
| 1,000,000 and over         | 4                               | 5,783,901                 | 1,445,975                                                  | 1                               | 1,933,876                 | 1,933,376                                                  |
| T O T A L                  | 20                              | 8,810,695                 | 440,585                                                    | 27                              | 7,699,902                 | 285,182                                                    |
|                            | Estab-<br>lish-<br>ments<br>No. | Production<br>\$          | Average<br>Production<br>per estab-<br>lishment<br>\$      | Estab-<br>lish-<br>ments<br>No. | Production<br>\$          | Average<br>Production<br>per estab-<br>lishment<br>\$      |
| <u>Production</u>          |                                 |                           |                                                            |                                 |                           |                                                            |
| Under 50,000               | 9                               | 67,991                    | 7,554                                                      | 15                              | 74,335                    | 4,956                                                      |
| 50,000 to under 100,000    | 1                               | 75,993                    | 75,993                                                     | -                               | -                         | -                                                          |
| 100,000 to under 200,000   | 2                               | 315,995                   | 157,998                                                    | 3                               | 412,424                   | 137,475                                                    |
| 200,000 to under 500,000   | 3                               | 1,142,107                 | 382,702                                                    | 2                               | 605,458                   | 303,229                                                    |
| 500,000 to under 1,000,000 | 2                               | 1,279,102                 | 639,551                                                    | 6                               | 3,841,295                 | 640,216                                                    |
| 1,000,000 and over         | 3                               | 4,819,552                 | 1,606,517                                                  | 1                               | 2,092,730                 | 2,092,730                                                  |
| T O T A L                  | 20                              | 7,706,740                 | 385,337                                                    | 27                              | 7,027,242                 | 260,268                                                    |





Capital Investment

The amount of capital invested in the woollen yarn industry in 1929 is shown by items and provinces in Table 3. Fixed capital comprising land, buildings, machinery and tools, which in 1928 amounted to \$4,205,137 decreased during the year by \$154,130 whilst working capital comprising materials, stocks and supplies on hand and cash, trading and operating accounts also decreased by \$956,663. Total capital, therefore, shows a decrease from 1928 of \$1,110,793. Ontario provided 83.21 per cent of the total capital, Quebec 12.53 per cent, the Maritime provinces .94 per cent and the Western provinces 3.32 per cent.

Table 3.- Capital invested in Woollen Yarn Mills, by Provinces, 1929.

| 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 | 646,632                                  | 275,323                                                    | 115,422                                    | 1,037,377     |
| Ontario                       | 3,771,104                                | 1,765,233                                                  | 870,346                                    | 6,406,683     |
| Manitoba and British Columbia | 233,271                                  | 19,938                                                     | 2,633                                      | 255,842       |
| CANADA                        | 4,651,007                                | 2,060,494                                                  | 988,401                                    | 7,699,902     |

Employment Statistics

The statistics relating to employment in the woollen yarn mills are presented in the following series of tables, for the calendar year 1929.

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 62.1 per cent of the male employees, 89.4 per cent of the females and expended in salaries and wages, etc. 80.5 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 4.- Employees by Number, Sex and Remuneration, 1929.

| Employment by Classes, etc.    |     | CANADA    | Ontario   | Maritime Provinces and Quebec | Western Provinces |
|--------------------------------|-----|-----------|-----------|-------------------------------|-------------------|
| Salaried Employees -           |     |           |           |                               |                   |
| Male                           | No. | 48        | 38        | 4                             | 6                 |
| Female                         | No. | 19        | 17        | 1                             | 1                 |
| Total Salaries                 | \$  | 149,098   | 124,014   | 14,824                        | 10,260            |
| Wage-earners, average number - |     |           |           |                               |                   |
| Male                           | No. | 741       | 452       | 268                           | 21                |
| Female                         | No. | 1,017     | 909       | 82                            | 26                |
| Total Wages                    | \$  | 1,131,976 | 907,269   | 195,655                       | 29,052            |
| T O T A L -                    |     |           |           |                               |                   |
| Employees, Male                | No. | 789       | 490       | 272                           | 27                |
| Employees, Female              | No. | 1,036     | 926       | 83                            | 27                |
| Salaries and Wages             | \$  | 1,281,074 | 1,031,283 | 210,479                       | 39,312            |





The Woollen Yarn Industry in Canada, 1929.

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 60.97 and 25.14 respectively. The next in order was the 8 hour group with 10.99 per cent whilst in the group working more than 10 hours it was 2.90 per cent.

Table 5.-- Hours worked per day by wage-earners in month of highest employment for Canada and the provinces, 1929.

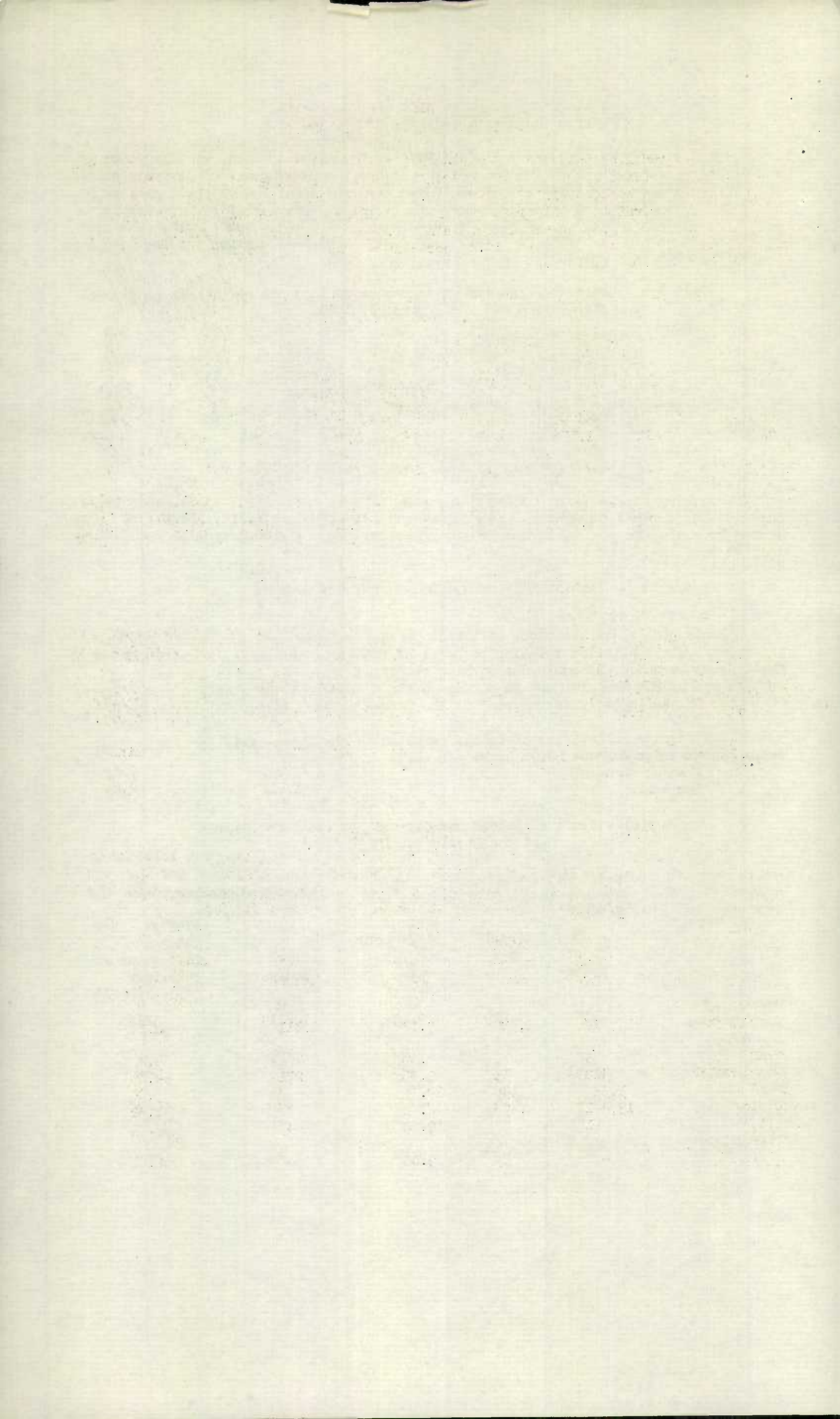
| Provinces        | Number of wage-earners in month of highest employment working per day of - |         |          |               | Percentage of wage-earners working per day of - |         |          |               |
|------------------|----------------------------------------------------------------------------|---------|----------|---------------|-------------------------------------------------|---------|----------|---------------|
|                  | 8 hours or less                                                            | 9 hours | 10 hours | Over 10 hours | 8 hours or less                                 | 9 hours | 10 hours | Over 10 hours |
| CANADA           | 212                                                                        | 1,176   | 485      | 56            | 10.99                                           | 60.96   | 25.14    | 2.90          |
| Nova Scotia      | -                                                                          | 7       | -        | -             | -                                               | 100.0   | -        | -             |
| New Brunswick    | -                                                                          | 18      | 15       | -             | -                                               | 54.55   | 45.45    | -             |
| Quebec           | -                                                                          | -       | 278      | 52            | -                                               | -       | 84.24    | 15.76         |
| Ontario          | 212                                                                        | 1,087   | 192      | 4             | 14.18                                           | 72.71   | 12.84    | .27           |
| Manitoba         | -                                                                          | 9       | -        | -             | -                                               | 100.0   | -        | -             |
| British Columbia | -                                                                          | 55      | -        | -             | -                                               | 100.0   | -        | -             |

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 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 9.19 hours per day and 52.26 hours per week.

Table 5(a).-- Hours of Labour per day and per week, for Canada and the Provinces, 1929.

| 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-earners | Total hours            | Average hours per wage-earner per week, per establishment |
| CANADA           | 17,718                                                                | 1,929              | 9.19                                   | 1,411                  | 52.26                                                     |
| Nova Scotia      | 63                                                                    | 7                  | 9.00                                   | 162                    | 54.00                                                     |
| New Brunswick    | 312                                                                   | 33                 | 9.45                                   | 271                    | 54.20                                                     |
| Quebec           | 3,326                                                                 | 330                | 10.70                                  | 55                     | 55.00                                                     |
| Ontario          | 13,441                                                                | 1,495              | 8.99                                   | 826                    | 51.62                                                     |
| Manitoba         | 81                                                                    | 9                  | 9.00                                   | 49                     | 49.00                                                     |
| British Columbia | 495                                                                   | 55                 | 9.00                                   | 48                     | 48.00                                                     |





## Employment Statistics - Cont'd.

Table 6 presents the statistics of employment during 1929 according to number and sex of wage-earner, by months. The maximum of employment was reached in the month of February with a total of 1,847 employees of whom 743 were males and 1,104 were females. The minimum of employment was reached in September with a total of 1,532 employees, of whom 681 were males and 851 were females. The average employment for the year was 741 males and 1,017 females.

Table 6.-- Employment by Months and Sex, 1929.

| Months                                 | Males<br>No. | Females<br>No. | Months    | Males<br>No. | Females<br>No. |
|----------------------------------------|--------------|----------------|-----------|--------------|----------------|
| January                                | 737          | 1,089          | July      | 734          | 985            |
| February                               | 743          | 1,104          | August    | 703          | 918            |
| March                                  | 723          | 1,092          | September | 681          | 851            |
| April                                  | 739          | 1,073          | October   | 702          | 897            |
| May                                    | 741          | 1,047          | November  | 742          | 927            |
| June                                   | 743          | 1,006          | December  | 717          | 964            |
| Total employment during the year       |              |                |           | 8,705        | 11,953         |
| Average monthly employment during year |              |                |           | 741          | 1,017          |

Working Time.-- Table 7 shows the number of days that plants were in operation during 1929, 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 from 9.20 in 1928 to 9.19 in 1929.

Table 7.-- Working Time of Plants and Employees, 1929.

| Number of operating plants       |  | 27    |                            |
|----------------------------------|--|-------|----------------------------|
|                                  |  | Total | Averages per establishment |
| Days plants were in operation -- |  |       |                            |
| On full time                     |  | 5,279 | 195.52                     |
| On part time                     |  | 796   | 29.48                      |
| Idle                             |  | 2,133 | 79.00                      |
| Hours worked by employees        |  |       |                            |
| Per day or shift                 |  | 248   | 9.19                       |
| Per week                         |  | 1,411 | 52.26                      |

## Fuel Consumption

The quantity and value of the fuel consumed by the woollen yarn industry is shown in Table 8 for the calendar year 1929. Bituminous coal accounted for 95.2 per cent of the total fuel outlay in 1929. The cost of electricity purchased during the year amounted to \$39,217 as compared with an outlay of \$53,691 in 1928.

Table 8.-- Fuel Consumption by Classes, 1929.

| Classes of Fuel                    | Unit of Measure | Quantity | Cost Value in Factory |
|------------------------------------|-----------------|----------|-----------------------|
| Bituminous Coal                    | ton             | 9,917    | 63,065                |
| Lignite Coal                       | ton             | 43       | 185                   |
| Gasoline                           | gallon          | 145      | 37                    |
| Wood                               | cord            | 732      | 2,731                 |
| Gas, artificial or natural         | n.c.ft.         | 399      | 240                   |
| Fuel oil                           | -               | -        | -                     |
| Electricity                        | -               | -        | 39,217                |
| Total cost of Fuel and Electricity | -               | -        | 105,475               |





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Power Installation

The power installed in woollen yarn mills in 1929 is shown in Table 9 by (a) the classes of power, (b) the number of units in each class and (c) the total horse-power according to manufacturer's rating.

Table 9.- Power Installation, 1929.

| Class of Power                              | Number of units | Horse Power according to manufacturers' rating |
|---------------------------------------------|-----------------|------------------------------------------------|
| Steam engines and turbines                  | 8               | 181                                            |
| Oil, gas and gasoline engines               | 3               | 30                                             |
| Hydraulic turbines or water wheels          | 6               | 139                                            |
| Electric motors operated by purchased power | 187             | 2,753                                          |
| Total power used in manufacturing           | 204             | 3,103                                          |
| Boilers installed                           | 29              | 2,585                                          |

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 1929. Raw wool represented 3.79 per cent, tops and waste and noils 70.88 per cent, and woollen and worsted yarns 12.78 per cent of the total cost of materials used during the year.

Table 10.- Materials used in Woollen Yarn Mills, 1929.

| Kinds of Materials                            | Unit of Measure | Quantity  | Cost Value at the Factory or Mill |
|-----------------------------------------------|-----------------|-----------|-----------------------------------|
|                                               |                 |           | \$                                |
| Wool, domestic, - In the grease               | Pound           | 197,225   | 61,443                            |
| Washed, scoured and pulled                    | "               | 13,748    | 4,395                             |
| Wool, foreign, - In the grease                | "               | 169,039   | 69,132                            |
| Washed, scoured and pulled                    | "               | 34,502    | 15,451                            |
| Wool waste                                    | "               | 39,336    | 8,714                             |
| Wool noils                                    | "               | 676       | 325                               |
| Tops                                          | "               | 4,654,080 | 2,799,149                         |
| Shoddy, mungo and wool extract                | "               | 77,395    | 15,981                            |
| Cotton, raw                                   | "               | 420,484   | 89,952                            |
| Tailors' clippings, rags, etc.                | "               | 4,882     | 488                               |
| Woollen yarns                                 | "               | 717,336   | 193,640                           |
| Worsted yarns                                 | "               | 388,409   | 312,564                           |
| Cotton yarns                                  | "               | 205,597   | 69,414                            |
| Artificial silk yarn                          | "               | 23,649    | 25,355                            |
| Linen yarns                                   | "               | 28,384    | 6,670                             |
| Jute ramie, or other yarns of vegetable fibre | "               | 292,931   | 38,488                            |
| Silk, waste (artificial)                      | "               | 6,774     | 1,764                             |
| Merino yarns                                  | "               | 31,656    | 42,144                            |
| Chemicals and dyestuffs (value only)          | -               | -         | 154,252                           |
| All other materials (value only)              | -               | -         | 52,775                            |
| Total cost of Materials                       | -               | -         | 3,962,096                         |

Equipment

The equipment of the 27 mills reporting is shown in Table 11.

Table 11.- Equipment installed in Woollen Yarn Mills, 1929.

| K i n d                                    | Woollen | Worsted | Shoddy | Cotton | TOTAL  |
|--------------------------------------------|---------|---------|--------|--------|--------|
| Sets of cards                              | 72      | 3       | -      | 5      | 80     |
| Spindles, number:                          |         |         |        |        |        |
| Mule spinning spindles                     | 19,614  | -       | -      | -      | 19,614 |
| Frame spinning spindles                    | 537     | 40,634  | -      | -      | 41,171 |
| Doubling and twisting spindles             | 725     | 17,255  | -      | -      | 17,981 |
| Broad looms (50 inches reed space or over) | 46      | 14      | -      | -      | 60     |
| Narrow looms (under 50 inches reed space)  | 9       | 60      | -      | -      | 69     |
| Wool combing machines                      | -       | -       | -      | -      | 5      |
| Pickers                                    | -       | -       | -      | -      | 42     |
| Garnet machines                            | -       | -       | -      | -      | 6      |

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 1929 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 1927, 1928 and 1929 is given below for purposes of comparison.

Summary of Principal Statistics, 1927, 1928 and 1929.

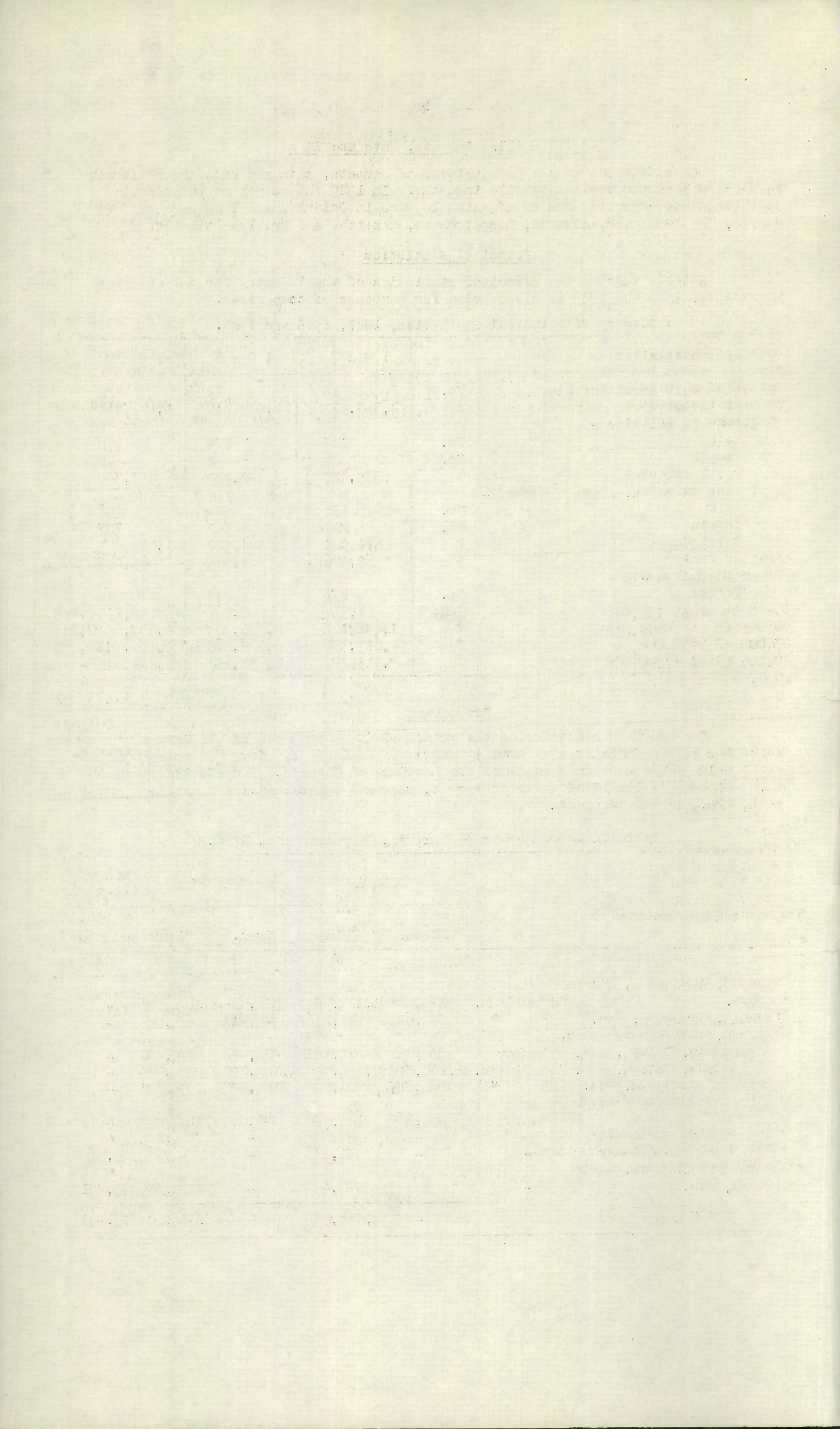
| Principal Statistics                 |      | 1 9 2 7   | 1 9 2 8   | 1 9 2 9   |
|--------------------------------------|------|-----------|-----------|-----------|
| Establishments reporting             | No.  | 18        | 22        | 22        |
| Capital invested                     | \$   | 4,343,572 | 6,072,610 | 6,446,734 |
| Employees on salaries -              |      |           |           |           |
| Male                                 | No.  | 117       | 174       | 172       |
| Female                               | No.  | 26        | 42        | 42        |
| Total Salaries                       | \$   | 339,427   | 442,277   | 461,360   |
| Employees on wages, average number - |      |           |           |           |
| Male                                 | No.  | 531       | 559       | 696       |
| Female                               | No.  | 274       | 362       | 383       |
| Total Wages                          | \$   | 681,021   | 854,527   | 1,002,325 |
| Cost of fuel                         | \$   | 62,406    | 61,666    | 68,969    |
| Power installed -                    |      |           |           |           |
| Units                                | No.  | 278       | 275       | 265       |
| Capacity                             | H.P. | 2,310     | 2,267     | 2,115     |
| Cost of Materials                    | \$   | 1,692,111 | 2,370,903 | 2,559,680 |
| Value of Products                    | \$   | 4,015,339 | 5,009,240 | 5,434,555 |
| Value added by manufacture           | \$   | 2,323,228 | 2,538,337 | 2,874,875 |

#### 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 21.4 per cent of the total value of output, rugs and squares 69.8 per cent and other mats, etc., to 8.8 per cent.

Table 1. - Production of Carpets, Mats and Rugs, 1929.

|                                       | CANADA      |           | ONTARIO   |           | Other Provinces |        |
|---------------------------------------|-------------|-----------|-----------|-----------|-----------------|--------|
| Articles manufactured                 | Quan.       | Value     | Quan.     | Value     | Value only      |        |
|                                       |             | \$        |           | \$        | \$              |        |
| Carpets, Axminster, Wilton etc.       | lineal yds. | 378,824   | 1,102,951 | 378,824   | 1,102,951       | -      |
| Ingrain, Brussels, etc.               | " "         | 74,611    | 62,026    | 74,611    | 62,026          | -      |
| Squares, mats and runners:-           |             |           |           |           |                 |        |
| Axminster, Wilton, etc.               | Number      | 36,256    | 479,901   | 36,256    | 479,901         | -      |
| Axminster, Wilton, etc.               | lineal yds. | 1,108,392 | 2,950,240 | 1,108,392 | 2,950,240       | -      |
| Smyrna, Brussels, etc.                | " "         | 102,887   | 223,251   | 102,887   | 223,251         | -      |
| Other woollen or cotton mats          | Number      | 43,565    | 141,952   | 43,565    | 141,952         | -      |
| Cocoa mats and matting                | -           | -         | 97,035    | -         | 97,035          | -      |
| All other mats and rugs               | -           | -         | 71,226    | -         | 64,566          | 6,660  |
| All other products, custom work, etc. | -           | -         | 305,923   | -         | 232,132         | 73,791 |
| TOTAL                                 | -           | -         | 5,434,555 | -         | 5,354,104       | 80,451 |





Carpets, Mats and Rugs, 1929.

Size of Establishments

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 1929 the number of establishments reporting was 22 with a total capital investment of \$6,446,734,- a gross value of production of \$5,434,555 and a total employment of 1,293. Three establishments had a capital investment of \$5,920,894 or 91.9 per cent of the total capitalization and an average investment of \$1,973,631 per establishment. Two firms had a total production of \$3,951,320 being 72.7 per cent of the total output and an average of \$1,975,660 per establishment. In employment 3 firms reported 1,078 persons on the payrolls or 83.4 per cent of the total employment with an average employment per establishment of 359.

|                            | 1928             |                            |                                    | 1929             |                            |                                    |
|----------------------------|------------------|----------------------------|------------------------------------|------------------|----------------------------|------------------------------------|
|                            | Estab-lish-ments | Total Capital              | Average Capital per estab-lishment | Estab-lish-ments | Total Capital              | Average Capital per estab-lishment |
|                            | No.              | \$                         | \$                                 | No.              | \$                         | \$                                 |
| <u>Capital Invested</u>    |                  |                            |                                    |                  |                            |                                    |
| Under 50,000               | 16               | 130,571                    | 8,723                              | 16               | 151,427                    | 9,464                              |
| 50,000 to under 100,000    | 2                | 150,536                    | 75,268                             | 2                | 184,430                    | 92,215                             |
| 100,000 to " 200,000       | 1                | 166,436                    | 166,436                            | 1                | 189,983                    | 189,983                            |
| 200,000 to " 500,000       | -                | -                          | -                                  | -                | -                          | -                                  |
| 500,000 to " 1,000,000     | 1                | 998,221                    | 998,221                            | -                | -                          | -                                  |
| 1,000,000 and over         | 2                | 4,617,846                  | 2,308,923                          | 3                | 5,920,894                  | 1,973,631                          |
| TOTAL                      | 22               | 6,072,610                  | 276,028                            | 22               | 6,446,734                  | 293,033                            |
|                            | Estab-lish-ments | Total Employees            | Average Employees                  | Estab-lish-ments | Total Employees            | Average Employees                  |
|                            | No.              | No.                        | No.                                | No.              | No.                        | No.                                |
| <u>Employees</u>           |                  |                            |                                    |                  |                            |                                    |
| Under 20                   | 16               | 96                         | 6.0                                | 16               | 84                         | 5.25                               |
| 20 to under 50             | 2                | 64                         | 32.0                               | 2                | 69                         | 34.50                              |
| 50 to under 100            | 1                | 64                         | 64.0                               | 1                | 62                         | 62.00                              |
| 100 to under 200           | 1                | 108                        | 108.0                              | 1                | 178                        | 178.00                             |
| 200 to under 500           | 1                | 265                        | 265.0                              | 1                | 305                        | 305.00                             |
| 500 and over               | 1                | 540                        | 540.0                              | 1                | 595                        | 595.00                             |
| TOTAL                      | 22               | 1,137                      | 51.7                               | 22               | 1,293                      | 58.80                              |
|                            | Estab-lish-ments | Total Value of Produc-tion | Average Value                      | Estab-lish-ments | Total Value of Produc-tion | Average Value                      |
|                            | No.              | \$                         | \$                                 | No.              | \$                         | \$                                 |
| <u>Production</u>          |                  |                            |                                    |                  |                            |                                    |
| Under 50,000               | 16               | 189,989                    | 11,874                             | 15               | 129,231                    | 8,615                              |
| 50,000 to under 100,000    | 1                | 53,482                     | 53,482                             | 2                | 114,609                    | 57,305                             |
| 100,000 to under 200,000   | 1                | 141,531                    | 141,531                            | 1                | 145,346                    | 145,346                            |
| 200,000 to under 500,000   | 2                | 685,994                    | 342,997                            | 1                | 227,000                    | 227,000                            |
| 500,000 to under 1,000,000 | -                | -                          | -                                  | 1                | 867,049                    | 867,049                            |
| 1,000,000 and over         | 2                | 3,938,244                  | 1,969,122                          | 2                | 3,951,320                  | 1,975,660                          |
| TOTAL                      | 22               | 5,009,240                  | 227,693                            | 22               | 5,434,555                  | 247,025                            |





Carpets, Mats and Rugs, 1929

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 1928 by \$374,124 or nearly 6.16 per cent. Ontario's proportion of the total investment was approximately 99 per cent.

Table 2. - Capital Invested by Provinces, 1929.

| Items of Capital                             | CANADA    | ONTARIO   | Other Provinces |
|----------------------------------------------|-----------|-----------|-----------------|
|                                              | \$        | \$        | \$              |
| Fixed Capital -                              |           |           |                 |
| Land, buildings, fixtures, machinery, etc.   | 2,532,165 | 2,501,646 | 37,519          |
| Working Capital -                            |           |           |                 |
| Materials, supplies and stocks in hand, etc. | 1,570,436 | 1,553,138 | 17,348          |
| Cash, trading and operating accounts, etc.   | 2,337,083 | 2,321,551 | 15,532          |
| TOTAL CAPITAL                                | 6,446,734 | 6,376,335 | 70,399          |

Employment Statistics

Statistics relating to employment are shown in the following series of tables for the calendar year 1929:-

- (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 1,259 persons in a total of 1,293 for the Dominion or approximately 97.4 per cent, while the amount paid for salaries and wages was 97.7 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 1929, by Provinces.

| Employees by classes                 |     | CANADA    | ONTARIO   | Other Provinces |
|--------------------------------------|-----|-----------|-----------|-----------------|
| Employees on salaries                |     |           |           |                 |
| Male                                 | No. | 172       | 164       | 8               |
| Female                               | No. | 42        | 41        | 1               |
| Total Salaries                       | \$  | 461,360   | 446,905   | 14,455          |
| Employees on wages, average number - |     |           |           |                 |
| Male                                 | No. | 696       | 684       | 12              |
| Female                               | No. | 383       | 370       | 13              |
| Total wages                          | \$  | 1,002,325 | 982,691   | 19,634          |
| Total employees -                    |     |           |           |                 |
| Male                                 | No. | 868       | 848       | 20              |
| Female                               | No. | 425       | 411       | 14              |
| Salaries and wages                   | \$  | 1,463,685 | 1,429,596 | 34,089          |

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 March with a total of 1,136 persons of whom 727 were males and 409 females. The month of lowest employment was September when there were on the payroll a total of 1,021 of whom 661 were males and 360 were females. The average monthly employment was 696 males and 383 females as shown in Table 4.

Table 4. - Employment by Months and Sex, 1929.

| Months                                     | Male No. | Female No. | Months    | Male No. | Female No. |
|--------------------------------------------|----------|------------|-----------|----------|------------|
| January                                    | 709      | 409        | July      | 679      | 362        |
| February                                   | 726      | 399        | August    | 676      | 361        |
| March                                      | 727      | 409        | September | 661      | 360        |
| April                                      | 697      | 380        | October   | 683      | 366        |
| May                                        | 693      | 363        | November  | 700      | 388        |
| June                                       | 691      | 367        | December  | 690      | 391        |
| Total employment during the year           |          |            |           | 8,332    | 4,555      |
| Average monthly employment during the year |          |            |           | 696      | 383        |





Carpets, Mats and Rugs, 1929

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 dropped to 249.18 days during the year, while part time operation was 31.73 and idle time 23.09 days. Weekly working hours of employees show a decrease from 48.59 hours in 1928 to 47.91 hours in 1929.

Table 5. - Operating time of Plants and Employees, 1929.

| Number of Establishments reporting |  | 22    |         |
|------------------------------------|--|-------|---------|
|                                    |  | Total | Average |
| Days in operation -                |  |       |         |
| On full time                       |  | 5,482 | 249.18  |
| On part time                       |  | 698   | 31.73   |
| Idle                               |  | 508   | 23.09   |
| Hours worked by wage-earners -     |  |       |         |
| Per day or shift                   |  | 191   | 8.68    |
| Per week                           |  | 1,054 | 47.91   |

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 for the Dominion was that of the group of wage-earners working 9 and 10 hours per day, the percentages being 39.66 and 50.90 respectively. The next in order was the 8 hour group with 5.41 per cent whilst in the group working more than 10 hours the percentage was 4.03.

Table 6. - Hours worked per day by wage-earners in month of highest employment for Canada and the Provinces, 1929.

| 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             | 63                                                                         | 462     | 593      | 47            | 5.41                                            | 39.66   | 50.90    | 4.03          |
| Maritime Provinces | 28                                                                         | -       | -        | -             | 100.00                                          | -       | -        | -             |
| Ontario            | 29                                                                         | 458     | 593      | 47            | 2.57                                            | 40.54   | 52.62    | 4.17          |
| 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 3.51 hours per day and 47.91 hours per week.

Table 6(a). - Hours of Labour per day and per week, for Canada and the Provinces, 1929.

| 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 per establishment |
| CANADA             | 11,036                                                                | 1,165              | 9.51                                  | 1,054                           | 47.91                                                   |
| Maritime Provinces | 224                                                                   | 28                 | 8.00                                  | 22                              | 46.00                                                   |
| Ontario            | 10,773                                                                | 1,127              | 9.56                                  | 778                             | 48.62                                                   |
| Western Provinces  | 84                                                                    | 10                 | 8.40                                  | 184                             | 46.00                                                   |





Carpets, Mats and Rugs, 1929.

Fuel Consumption

The quantity and value of fuel consumed by the industry in 1929 is shown in Table 7 by classes. Compared with 1928 there was an increase in the total cost of fuel which is mainly accounted for by the greater quantity of bituminous coal reported. The cost of electricity purchased amounted to \$20,741 in 1929 as compared with \$18,538 in 1928.

Table 7. - Fuel Consumption by classes, 1929.

| Classes of fuel             | Unit of Measure | Quantity | Cost value at Factory |
|-----------------------------|-----------------|----------|-----------------------|
|                             |                 |          | \$                    |
| Bituminous coal             | ton             | 11,287   | 66,210                |
| Anthracite coal             | "               | 43       | 565                   |
| Coke                        | "               | 18       | 233                   |
| Gasoline                    | gallon          | 202      | 56                    |
| Fuel oils                   | "               | 8,617    | 274                   |
| Gas, artificial and natural | m.c.ft.         | 598      | 560                   |
| All other fuels             | -               | -        | 371                   |
| Electricity                 | -               | -        | 20,741                |
| Total Cost of Fuel          | -               | -        | 89,710                |

Power Installation

The kinds of power installed in the carpet factories of the Dominion in 1929 are shown in Table 8. Electric motors operated by purchased power supplied over 77.1 per cent of the total manufacturing horse power installation in 1929, as compared with 78.8 per cent in 1928.

Sixteen boilers with a horse power capacity of 2,368 were reported in 1929 as against 15 boilers of 2,616 horse power in 1928.

Table 8. - Power Installation, 1929.

| Classes of Power Installed                  | Number of Units | Horse power capacity according to manufacturers' rating |
|---------------------------------------------|-----------------|---------------------------------------------------------|
| Steam engines and turbines                  | 4               | 482                                                     |
| Oil gas and gasoline engines                | 1               | 3                                                       |
| Electric motors operated by purchased power | 260             | 1,630                                                   |
| Total power used in manufacture             | 265             | 2,115                                                   |
| Electric motors operated by power owned     | 125             | 1,250                                                   |
| Total electric motors                       | 385             | 2,880                                                   |
| Boilers installed                           | 16              | 2,368                                                   |





Carpets, Mats and Rugs, 1929

Materials Used

The principal materials used in the industry in 1929 are shown by quantity and cost value in Table 9. The total value of materials used amounted to \$2,559,680 of which woollen and worsted yarns constituted \$1,660,333 or 64.9 per cent. This value represents an increase from the 1928 report of \$150,742 or approximately 10 per cent.

Table 9. - Materials Used by Kinds, 1929.

| Kinds of materials used                       | Unit of Measure | Quantity  | Cost Value |
|-----------------------------------------------|-----------------|-----------|------------|
| Woollen yarns                                 | pounds          | 1,973,156 | 1,147,321  |
| Worsted yarns                                 | "               | 696,134   | 513,012    |
| Cotton yarns                                  | "               | 1,299,884 | 440,715    |
| Linen yarns                                   | "               | 962       | 245        |
| Artificial silk yarns                         | "               | 3,182     | 2,734      |
| Jute, ramie and other yarn of vegetable fibre | "               | 2,115,972 | 289,526    |
| Chemicals and dyestuffs (value only)          | -               | -         | 104,131    |
| All other materials (value only)              | -               | -         | 61,996     |
| Total Cost of Materials                       | -               | -         | 2,559,680  |

Equipment in Carpet, Mat and Rug Factories

The equipment reported in the carpet, mat and rug factories of the Dominion in 1929 was as follows:-

|                                            |     |
|--------------------------------------------|-----|
| Broad Looms (50 inches reed space or over) | 45  |
| Narrow Looms (under 50 inches reed space)  | 325 |
| 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 1929. The total value of imports was \$3,377,331 and the value of manufactured products \$5,434,555, so that for every dollar of product manufactured in Canada we import goods to the value of sixty-two cents. The United Kingdom supplied \$1,501,713 of the value of imports for consumption or 44.4 per cent, the United States \$279,103 or 8.27 per cent and all Other Countries \$1,596,515 or about 47.33 per cent.





Carpets, Mats and Rugs, 1929

Table 10. - Imports of Carpets, Mats and Rugs by Principal Countries for Calendar year 1929.

| Articles                                    |     | Quantity | Value     |
|---------------------------------------------|-----|----------|-----------|
|                                             |     |          | \$        |
| Carpets, Axminster in rolls                 | Yd. |          |           |
| United Kingdom                              |     | 76,937   | 185,796   |
| United States                               |     | 1,306    | 3,913     |
| Other Countries                             |     | 11,227   | 19,239    |
| T O T A L                                   |     | 89,470   | 208,948   |
| Carpets, Axminster in squares               | No. |          |           |
| United Kingdom                              |     | 9,479    | 293,586   |
| United States                               |     | 427      | 12,356    |
| Germany                                     |     | 1,836    | 33,914    |
| Other Countries                             |     | 3,919    | 49,775    |
| T O T A L                                   |     | 15,661   | 389,631   |
| Carpets, Brussels and Wilton in rolls       | Yd. |          |           |
| United Kingdom                              |     | 18,154   | 37,621    |
| United States                               |     | 734      | 2,063     |
| Other Countries                             |     | 705      | 1,987     |
| T O T A L                                   |     | 19,593   | 41,671    |
| Carpets, Brussels, Wilton in squares        | No. |          |           |
| United Kingdom                              |     | 5,360    | 157,480   |
| United States                               |     | 179      | 8,888     |
| France                                      |     | 387      | 7,965     |
| Other Countries                             |     | 1,734    | 41,748    |
| T O T A L                                   |     | 7,660    | 216,081   |
| Carpets, Ingrain 2 & 3 ply in rolls         | Yd. |          |           |
| United Kingdom                              |     | 12,185   | 15,211    |
| United States                               |     | 17,171   | 6,353     |
| Other Countries                             |     | 14,993   | 18,414    |
| T O T A L                                   |     | 44,349   | 39,978    |
| Carpets, Ingrain 2 & 3 ply in squares       | No. |          |           |
| United Kingdom                              |     | 1,754    | 36,237    |
| United States                               |     | 2,814    | 13,902    |
| France                                      |     | 3,654    | 48,506    |
| Other Countries                             |     | 1,874    | 23,645    |
| T O T A L                                   |     | 10,096   | 122,290   |
| Carpets, oriental and hand woven in squares | No. |          |           |
| United Kingdom                              |     | 5,458    | 394,892   |
| United States                               |     | 921      | 151,736   |
| British India                               |     | 1,490    | 128,473   |
| China                                       |     | 868      | 54,867    |
| Persia                                      |     | 3,445    | 214,155   |
| Turkey                                      |     | 6,260    | 262,405   |
| Greece                                      |     | 3,064    | 204,590   |
| Other Countries                             |     | 1,649    | 61,103    |
| T O T A L                                   |     | 23,155   | 1,472,228 |





Carpets, Mats and Rugs, 1929.

Table 10. - Imports of Carpets, Mats and Rugs by Principal Countries for Calendar Year 1929 (Cont'd.).

| Articles                                  |     | Quantity | Value     |
|-------------------------------------------|-----|----------|-----------|
|                                           |     |          | \$        |
| Carpets, tapestry and velvet in rolls     | Yd. |          |           |
| United Kingdom                            |     | 61,377   | 64,104    |
| United States                             |     | 9,842    | 10,079    |
| France                                    |     | 21,991   | 21,189    |
| Other Countries                           |     | 721      | 1,557     |
| T O T A L                                 |     | 93,931   | 96,909    |
| Carpets, tapestry and velvet in squares   | No. |          |           |
| United Kingdom                            |     | 3,017    | 50,610    |
| United States                             |     | 39       | 1,230     |
| France                                    |     | 2,359    | 35,456    |
| Germany                                   |     | 121      | 2,207     |
| Other Countries                           |     | 2,068    | 13,832    |
| T O T A L                                 |     | 7,654    | 103,335   |
| Cocoa carpets, mats and rugs - value only |     |          |           |
| United Kingdom                            |     | -        | 574       |
| United States                             |     | -        | 2,953     |
| British India                             |     | -        | 25,315    |
| Other Countries                           |     | -        | 4,865     |
| T O T A L                                 |     | -        | 33,707    |
| Mats and rugs up to 3' x 6' and runners   |     |          |           |
| United Kingdom                            |     | -        | 265,595   |
| Germany                                   |     | -        | 25,378    |
| United States                             |     | -        | 65,630    |
| France                                    |     | -        | 71,381    |
| Japan                                     |     | -        | 87,525    |
| Belgium                                   |     | -        | 47,644    |
| Other Countries                           |     | -        | 89,350    |
| T O T A L                                 |     | -        | 652,503   |
| Total value of imports by countries -     |     |          |           |
| United Kingdom                            |     | -        | 1,501,713 |
| United States                             |     | -        | 279,103   |
| British India                             |     | -        | 153,788   |
| France                                    |     | -        | 149,041   |
| Germany                                   |     | -        | 96,955    |
| China                                     |     | -        | 54,867    |
| Japan                                     |     | -        | 87,525    |
| Greece                                    |     | -        | 204,590   |
| Persia                                    |     | -        | 214,155   |
| Turkey                                    |     | -        | 262,405   |
| Belgium                                   |     | -        | 47,644    |
| Other Countries                           |     | -        | 325,545   |
| T O T A L                                 |     | -        | 3,377,331 |

The value of exports of Canadian produce are shown in Table 11 by principal countries, the total value in 1929 being \$75,198, a decrease of \$7,634 over 1928.

Table 11. - Exports of Carpets, Mats, etc., to Principal Countries for Calendar Year 1929.

|                           | Quantity | Value  |
|---------------------------|----------|--------|
|                           |          | \$     |
| Wool carpets (value only) |          |        |
| United Kingdom            | -        | 2,749  |
| United States             | -        | 6,373  |
| New Zealand               | -        | 42,817 |
| Other Countries           | -        | 23,259 |
| T O T A L                 | -        | 75,198 |





SECTION IV. Woollen Goods, n.e.s.

In 1929 the number of establishments reporting was 26 with a total capital investment of \$8,680,289, a gross value of production of \$6,476,608 and a total employment of 1,141. Seven establishments had a total capital investment of \$7,562,127 or 87.12 per cent of the total capital investment and an average of \$1,080,304 per establishment. Seven establishments reported a gross value of production of \$5,324,867 or 82.2 per cent of the total production, being an average output of \$760,674 per establishment. In employment 9 firms had 993 persons on the payroll being an average of 110 persons per establishment and 87 per cent of the total employment.

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.

Woollen Goods, n.e.s.

|                            | 1928                     |                                 |                                              | 1929                     |                                 |                                              |
|----------------------------|--------------------------|---------------------------------|----------------------------------------------|--------------------------|---------------------------------|----------------------------------------------|
|                            | Estab-<br>lish-<br>ments | Total<br>Capital                | Average<br>Capital per<br>establish-<br>ment | Estab-<br>lish-<br>ments | Total<br>Capital                | Average<br>Capital per<br>establish-<br>ment |
| Capital Invested           | No.                      | \$                              | \$                                           | No.                      | \$                              | \$                                           |
| Under 50,000               | 9                        | 198,149                         | 22,017                                       | 9                        | 200,953                         | 22,328                                       |
| 50,000 to under 100,000    | 6                        | 399,283                         | 66,547                                       | 7                        | 473,735                         | 67,677                                       |
| 100,000 to under 200,000   | 4                        | 553,166                         | 139,541                                      | 3                        | 443,474                         | 147,825                                      |
| 200,000 to under 500,000   | 3                        | 778,842                         | 259,614                                      | 4                        | 1,258,529                       | 314,632                                      |
| 500,000 to under 1,000,000 | 2                        | 1,085,778                       | 542,889                                      | -                        | -                               | -                                            |
| 1,000,000 and over         | 3                        | 5,354,904                       | 1,784,968                                    | 3                        | 6,303,598                       | 2,101,199                                    |
| TOTAL                      | 27                       | 8,375,122                       | 310,189                                      | 26                       | 8,680,289                       | 333,857                                      |
| Employees                  | Estab-<br>lish-<br>ments | Total<br>Employees              | Average<br>Employees                         | Estab-<br>lish-<br>ments | Total<br>Employees              | Average<br>Employees                         |
|                            | No.                      | No.                             | No.                                          | No.                      | No.                             | No.                                          |
| Under 20                   | 18                       | 153                             | 8.5                                          | 17                       | 148                             | 8.71                                         |
| 20 to under 50             | 3                        | 108                             | 36.0                                         | 4                        | 129                             | 32.25                                        |
| 50 to under 100            | 2                        | 114                             | 57.0                                         | 2                        | 117                             | 58.50                                        |
| 100 to under 200           | 2                        | 266                             | 133.0                                        | 2                        | 273                             | 136.50                                       |
| 200 to under 500           | 2                        | 584                             | 292.0                                        | 1                        | 474                             | 474.00                                       |
| TOTAL                      | 27                       | 1,225                           | 45.4                                         | 26                       | 1,141                           | 43.90                                        |
| Production                 | Estab-<br>lish-<br>ments | Total<br>Value of<br>Production | Average<br>Value                             | Estab-<br>lish-<br>ments | Total<br>Value of<br>Production | Average<br>Value                             |
|                            | No.                      | \$                              | \$                                           | No.                      | \$                              | \$                                           |
| Under 50,000               | 9                        | 255,343                         | 28,371                                       | 9                        | 237,846                         | 26,427                                       |
| 50,000 to under 100,000    | 5                        | 393,422                         | 78,684                                       | 6                        | 372,117                         | 62,019                                       |
| 100,000 to under 200,000   | 5                        | 777,207                         | 155,441                                      | 4                        | 541,778                         | 135,444                                      |
| 200,000 to under 500,000   | 4                        | 1,088,571                       | 272,143                                      | 4                        | 1,218,987                       | 304,747                                      |
| 500,000 to under 1,000,000 | 3                        | 2,212,066                       | 737,335                                      | 2                        | 1,595,461                       | 797,730                                      |
| 1,000,000 and over         | 1                        | 2,182,680                       | 2,182,680                                    | 1                        | 2,510,419                       | 2,510,419                                    |
| TOTAL                      | 27                       | 6,909,229                       | 255,897                                      | 26                       | 6,476,608                       | 249,100                                      |

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 1929 was 26 as compared with 27 in the preceding year. Of the plants in operation 19 were located in Ontario, 4 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, 1929

Table 1. - Statistics of production by quantity and value within provinces for the calendar year 1929. Of the total value of output the province of Ontario contributed \$3,457,612 or 53.4 per cent followed by Quebec with 44.0 per cent, whilst the remaining provinces produced 2.6 per cent. The item of production showing the greatest value was pulp and paper maker's felts amounting to \$3,493,062 or nearly 54 per cent. Shoddy mungo and wool extract being next with a value of \$576,599 or 9 per cent followed in order by blankets with a value of \$525,054 and wool pulled with a value of \$297,655.

Table 1. - Production in Woollen Goods Mills, n. e. s., by Provinces, 1929.

| Articles Manufactured         |       |  | CANADA    |           | Quebec    |           | Ontario   |           | Other Provinces |         |
|-------------------------------|-------|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------------|---------|
|                               |       |  | Quantity  | Value     | Quantity  | Value     | Quantity  | Value     | Quantity        | Value   |
| Felt Goods -                  |       |  |           |           |           |           |           |           |                 |         |
| Shoe felts                    | Yard  |  | 259,581   | 160,165   | -         | -         | 259,581   | 160,165   | -               | -       |
| harness felts                 | Found |  | 125,040   | 51,247    | -         | -         | 125,040   | 51,247    | -               | -       |
| hair felts                    | Yard  |  | 523,222   | 174,555   | -         | -         | 523,222   | 174,555   | -               | -       |
| Trimming and lining felts     | Yard  |  | 100,030   | 73,452    | -         | -         | 100,038   | 73,452    | -               | -       |
| Padding felts                 | Yard  |  | 609,274   | 164,260   | -         | -         | 609,274   | 164,260   | -               | -       |
| Pulp and paper maker's felts  | Found |  | 2,064,990 | 3,493,062 | 2,100,754 | 2,250,306 | 634,236   | 1,243,476 | -               | -       |
| All other felt goods          | Found |  | 135,620   | 55,795    | -         | -         | 135,620   | 55,795    | -               | -       |
| Shoddy mungo and wool extract | Found |  | 3,753,209 | 576,599   | 448,443   | 98,178    | 3,304,846 | 478,421   | -               | -       |
| Sweat pads                    | Dozen |  | 5,486     | 29,422    | -         | -         | 5,486     | 29,422    | -               | -       |
| Blankets                      | -     |  | -         | 525,054   | -         | 229,140   | -         | 296,714   | -               | -       |
| Wool, pulled                  | Found |  | 616,603   | 297,655   | 45,000    | 14,000    | 465,005   | 172,026   | 306,598         | 111,629 |
| Upholstering material         | -     |  | -         | 62,838    | -         | -         | -         | 62,838    | -               | -       |
| Insoling material             | Found |  | 46,500    | 17,639    | -         | -         | 46,500    | 17,639    | -               | -       |
| Woollen yarns                 | Found |  | 6,750     | 1,326     | -         | -         | 6,750     | 1,326     | -               | -       |
| Pickled skins                 | Dozen |  | 30,709    | 243,541   | 1,215     | 9,720     | 19,395    | 176,897   | 10,099          | 56,924  |
| Bath robes                    | Found |  | 9,695     | 34,568    | -         | -         | 9,695     | 34,568    | -               | -       |
| Box toes                      | Pair  |  | 6,829,994 | 167,078   | 6,829,994 | 167,078   | -         | -         | -               | -       |
| Batts, flocks and rolls       | Found |  | 1,252,270 | 46,960    | 1,252,270 | 46,960    | -         | -         | -               | -       |
| Weather strip                 | -     |  | -         | 46,163    | -         | -         | -         | 46,163    | -               | -       |
| All other products            | -     |  | -         | 82,581    | -         | 34,961    | -         | 47,600    | -               | -       |
| Custom and repair work        | -     |  | -         | 163,048   | -         | -         | -         | 163,048   | -               | -       |
| TOTAL VALUE OF OUTPUT         |       |  | -         | 6,476,608 | -         | 2,850,443 | -         | 3,457,612 | -               | 168,553 |





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 1929 shows an increase in total of \$305,167. Approximately 52.9 per cent of the total investment is credited to the province of Ontario, 45.2 per cent to Quebec and 1.9 per cent to the other provinces.

Table 2. - Capital Investment by Provinces, 1929.

| Province           | Fixed Capital                   | Working Capital                |                                            | Total Capital |
|--------------------|---------------------------------|--------------------------------|--------------------------------------------|---------------|
|                    | Land, Buildings machinery tools | Materials and supplies on hand | Cash, trading and operating accounts, etc. |               |
|                    | \$                              | \$                             | \$                                         | \$            |
| CANADA             | 5,900,829                       | 1,648,016                      | 1,131,384                                  | 8,680,229     |
| Ontario            | 2,824,002                       | 886,457                        | 887,260                                    | 4,597,719     |
| Quebec             | 3,040,774                       | 670,068                        | 209,770                                    | 3,920,612     |
| Other Provinces 1/ | 36,113                          | 91,491                         | 34,354                                     | 161,958       |

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 1929 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 fell from 1,225, (800 males and 425 females) in 1928 to 1,141 (876 males and 265 females) in 1929. Salaries decreased by \$51,795, while wages increased by \$23,496. The province of Ontario supplied 51 per cent of the total employees and paid 56.2 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, 1929.

| Classes of Employees |     | CANADA    | Ontario | Quebec  | Other Provinces |
|----------------------|-----|-----------|---------|---------|-----------------|
| Salaried employees - |     |           |         |         |                 |
| Male                 | No. | 82        | 50      | 29      | 3               |
| Female               | No. | 22        | 19      | 3       | -               |
| Total Salaries       | \$  | 277,973   | 176,627 | 97,086  | 4,260           |
| Employees on wages - |     |           |         |         |                 |
| Male                 | No. | 794       | 398     | 366     | 30              |
| Female               | No. | 243       | 115     | 128     | -               |
| Total Wages          | \$  | 900,765   | 425,803 | 394,578 | 20,384          |
| Total Employees -    |     |           |         |         |                 |
| Male                 | No. | 876       | 448     | 395     | 33              |
| Female               | No. | 265       | 134     | 131     | -               |
| Salaries and Wages   | \$  | 1,178,738 | 662,430 | 491,664 | 24,644          |





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 1,093 individuals were entered on the payroll and the minimum in the month of April when the number on the payroll was 975. The average monthly employment during the year was 1,037 of whom 794 were males and 243 were females.

Table 4. - Employment of Wage-earners, by Months and Sex, 1929.

| Months                                     | Male<br>No. | Female<br>No. | Months    | Male<br>No. | Female<br>No. |
|--------------------------------------------|-------------|---------------|-----------|-------------|---------------|
| January                                    | 786         | 248           | July      | 754         | 240           |
| February                                   | 789         | 242           | August    | 756         | 241           |
| March                                      | 762         | 220           | September | 829         | 244           |
| April                                      | 745         | 230           | October   | 817         | 248           |
| May                                        | 747         | 234           | November  | 836         | 257           |
| June                                       | 753         | 236           | December  | 769         | 253           |
| Total employment during the year           |             |               |           | 9,343       | 2,893         |
| Average monthly employment throughout year |             |               |           | 794         | 243           |

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 252.23 days and part time for 19.69 days, whilst plants were idle for a total of 32.08 days. The hours of labour averaged 9.16 per day as against 9.04 in 1928 and 50.54 hours per week, as compared with 50.74 hours in 1928.

Table 5. - Working time of plants and employees, 1929.

|                             |       |          |
|-----------------------------|-------|----------|
| Number of operating plants  | 26    |          |
|                             | Total | Averages |
| Days in operation -         |       |          |
| on full time                | 6,558 | 252.23   |
| on part time                | 512   | 19.69    |
| Idle                        | 834   | 32.08    |
| Hours worked by employees - |       |          |
| Per day or shift            | 238   | 9.16     |
| Per week                    | 1,314 | 50.54    |

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 33.53 and 53.04 respectively. The next in order was the 8 hour group with 12.58 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, 1929.

| 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             | 147                                                                        | 392     | 620      | 10            | 12.58                                           | 33.53   | 53.04    | .85           |
| Maritime Provinces | -                                                                          | 23      | -        | -             | -                                               | 100.00  | -        | -             |
| Quebec             | -                                                                          | 15      | 544      | -             | -                                               | 2.68    | 97.32    | -             |
| Ontario            | 147                                                                        | 340     | 76       | 10            | 25.66                                           | 59.34   | 13.26    | 1.74          |
| 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 9.42 hours per day and 50.54 hours per week.

Table 6(a). - Hours of Labour per day and per week, for Canada and the Provinces, 1929.

| 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 per establishment |
| CANADA             | 11,009                                                                | 1,169              | 9.42                                  | 1,314                           | 50.54                                                    |
| Maritime Provinces | 207                                                                   | 23                 | 9.00                                  | 103                             | 51.50                                                    |
| Quebec             | 5,575                                                                 | 559                | 9.97                                  | 221                             | 55.25                                                    |
| Ontario            | 5,101                                                                 | 573                | 8.90                                  | 942                             | 49.58                                                    |
| Western Provinces  | 126                                                                   | 14                 | 9.00                                  | 48                              | 48.00                                                    |

Fuel 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 1929. Coal of all kinds constituted over 99 per cent of the total cost of fuel. The cost of electricity purchased amounted to \$33,529 in 1928 as compared with an expenditure of \$29,769 in 1929.

Table 7. - Fuel Consumption, by Classes, 1929.

| Classes of Fuel                    | Unit of Measure | Quantity | Cost Value at Mill |
|------------------------------------|-----------------|----------|--------------------|
| Bituminous Coal (incl. Screenings) | ton             | 11,458   | 70,925             |
| Anthracite coal                    | "               | 3        | 40                 |
| Lignite coal                       | "               | -        | -                  |
| Coke                               | "               | 8        | 104                |
| Gasoline                           | gal.            | -        | -                  |
| Oil (fuel)                         | "               | -        | -                  |
| Wood                               | Cord            | -        | -                  |
| Gas                                | M cu. ft.       | 230      | 138                |
| Other fuel                         | -               | -        | -                  |
| Electricity                        | -               | -        | 29,769             |
| Total Cost, fuel and electricity   | -               | -        | 100,976            |





### 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 1929. An increase, in installed h. p. capacity for manufacturing purposes, of 2,718 h. p. over 1928 will be noted which is accounted for by the increase in hydraulic turbines and electric motors.

Table 8. - Power installed in the Woollen Goods Industry, N.E.S. - 1929.

| 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                               | 7               | 3,861                                          |
| Electric motors operated by purchased power                      | 231             | 2,692                                          |
| Total power for manufacturing purposes                           | 242             | 6,812                                          |
| Electric motors operated by power generated by the establishment | 201             | 1,776                                          |
| Total electric motors                                            | 432             | 4,468                                          |
| Boiler installation                                              | 15              | 1,160                                          |

### 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 1929. The total cost of materials shows an increase of \$146,032 over the preceding year.

Table 9. - Materials Used, 1929.

| Kind                                 | Unit of Measure | Quantity  | Cost Value at Mill |
|--------------------------------------|-----------------|-----------|--------------------|
| Wool, domestic: in the grease        | Pound           | 34,047    | 7,812              |
| washed or scoured                    | "               | 76,161    | 26,616             |
| Wool, foreign: in the grease         | "               | 2,211,269 | 910,801            |
| washed, scoured and milled           | "               | 1,133,251 | 621,256            |
| Animal hair, all kinds               | "               | 543,862   | 47,075             |
| Tailors' clippings, rags, etc.       | "               | 5,269,023 | 358,912            |
| Cotton, raw                          | "               | 605,987   | 94,562             |
| Wool waste and noils                 | "               | 539,268   | 61,388             |
| Sheepskins                           | No.             | 368,538   | 481,973            |
| Jute and other waste                 | Pound           | 150,000   | 3,000              |
| Cotton yarn                          | "               | 1,362,350 | 453,017            |
| Cotton linters, waste, etc.          | "               | -         | -                  |
| Chemicals and dyestuffs (value only) | -               | -         | 27,342             |
| All other materials (value only)     | -               | -         | 254,982            |
| Total Cost of Materials              | -               | -         | 3,348,836          |

### 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., 1929.

| Kind                                       |     | Woollen | Cotton | Shoddy | Total |
|--------------------------------------------|-----|---------|--------|--------|-------|
| Sets of cards                              | No. | 41      | 4      | 29     | 74    |
| Spindles                                   |     |         |        |        |       |
| Mule spinning spindles                     | No. | 6,250   | -      | -      | 6,250 |
| Frame spinning spindles                    | No. | 300     | -      | -      | 300   |
| Doubling and twisting spindles             | No. | 256     | -      | -      | 256   |
| Broad looms (50 inches reed space or over) | No. | 112     | 11     | 1      | 131   |
| Pickers                                    | No. | -       | -      | -      | 41    |
| Garnet machines                            | No. | -       | -      | -      | 6     |
| 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.





Firms Manufacturing Woollen Cloths

NOVA SCOTIA

|                                          |           |
|------------------------------------------|-----------|
| Oxford Manufacturing Co. Ltd.            | Oxford    |
| St. Croix Woollen Manufacturing Co. Ltd. | St. Croix |

NEW BRUNSWICK

|                            |                  |
|----------------------------|------------------|
| J. A. Humphrey & Son, Ltd. | Box 366, Moncton |
|----------------------------|------------------|

QUEBEC

|                                              |                             |
|----------------------------------------------|-----------------------------|
| Fred Blanchette (Trenholmvile Woollen Mills) | R. R. #1, Trenholmvile.     |
| Joseph Blanchette                            | R. R. #1, South Durham      |
| Walter Blue & Co. Ltd.                       | Waterville                  |
| Metnot & Frere                               | Cap St. Ignace              |
| Albert B. Morrison                           | Brownsburg                  |
| Paton Manufacturing Co. Ltd.                 | 7 Belvidere St., Sherbrooke |
| Warwick Woollen Mills, Ltd.                  | Warwick                     |
| Napoleon Paquin                              | St. Gabriel de Brandon      |
| Produits Agricoles Ltd., (Eugene Gagne)      | Metabetchouan               |
| Saguenay Spinners Ltd.                       | Chicoutimi                  |
| Collins & Aikmain of Canada Ltd.             | Farnham                     |
| Thurso Flour and Woollen Mills               | Thurso                      |

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                 |
| Duncan Butler                                     | Strathroy                            |
| The Campbell Woollen Co. Ltd.                     | Almonte                              |
| Campbellford Cloth Co. Ltd.                       | Campbellford                         |
| Dominion Woollens & Worstedes Ltd. (Auburn Mills) | Peterborough                         |
| Flasherton Woollen Mill, (John Muhn)              | Flesherton                           |
| Dominion Woollens and Worstedes Ltd.              | Hespeler                             |
| J. W. Gladhill                                    | Ben Miller, (R.R. #4, Goderich)      |
| Glen Woollen Mills, Ltd.                          | Glen Williams                        |
| The Horn Bros. Woollen Co. Ltd.                   | 95 William St. W., Lindsay           |
| S. B. Lehman & Sons                               | R. R. #1, Unionville                 |
| A. Bradshaw & Son Ltd.                            | 507 College Avenue, Toronto 3        |
| Northern Textiles, Ltd.                           | P. O. Box #405, Chesley              |
| The Oriental Textiles Co. Ltd.                    | 131 Athol Street East, Oshawa        |
| The Paris Wincey Mills Co. Ltd.                   | Paris                                |
| Geo. Pattison & Co. Ltd.                          | Eagle Street, Preston                |
| Renfrew Textiles Ltd.                             | Renfrew                              |
| Rosamond Woollen Co. Ltd.                         | Almonte                              |
| The Slingsby Manufacturing Co. Ltd.               | 266 West Mill Street, Brantford      |
| Dupont Textiles Ltd.                              | Christie & Dupont Streets, Toronto 4 |
| William Thoburn (Thoburn Woollen Mills)           | Almonte                              |
| Vickerman Bros.                                   | R. R. #1, Preston                    |
| Watchorn & Co. Ltd.                               | Merrickville                         |
| La France Plushes Ltd.                            | Woodstock                            |

Firms Manufacturing Woollen Yarn

NOVA SCOTIA

|                          |                              |
|--------------------------|------------------------------|
| Jas. Creelman & Sons     | Newton Mills                 |
| A. M. Macpherson         | Rocklin (R.R. #1, Lansdowne) |
| Barrington Woollen Mills | Main St., Barrington, N.S.   |

NEW BRUNSWICK

|                               |                            |
|-------------------------------|----------------------------|
| Briggs and Little             | York Mills                 |
| Carleton County Woollen Mills | 239 Main Street, Woodstock |
| Speedy & Davidson             | King St., St. Stephen      |
| Golden Grove Woollen Mills    | Golden Grove               |
| F. E. Copp, Ltd.              | Port Elgin, N. B.          |





Firms Manufacturing Woollen Yarn - Cont'd.

QUEBEC

Penman's Limited, (Mill #8)

St. Hyacinthe

ONTARIO

Madoc Woollen Mills

A. W. Eastwood

Aked & Co. Ltd., (Operated by Patons and Baldwins Limited)

Dominion Woollens and Worsted's Limited

Dunnville Woollen Mills, Limited - Dunnville

Knitters Limited

James F. Gordon

Guelph Carpet & Worsted Spinning Mills, Ltd.

H. C. Wagner

Dominion Woollens and Worsted's Ltd.

Penman's Limited (Mill #9)

Penman's Limited (Mill #12)

Newlands and Co. Ltd.

Dominion Woollens and Worsted Ltd.

Burritts Rapids Woollen Mills Ltd.

Madoc

Baltimore

833 Dupont Street, Toronto

Peterborough

(H. C. 388 St. James St., Montreal)

Rink Street, Peterborough

Athens

83 Neeve Street, Guelph

(Carpets and Yarns).

Newton

Milton

Paris

Waterford

Galt

Grillia

Burritts Rapids

BRITISH COLUMBIA

B. C. Worsted Mills Limited

25 Montreal Street, Victoria.

MANITOBA

Fairfield and Sons

Little Britain

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

Ontario Rug Works

W. E. Eaton

Harding Carpets Ltd.

Canada Rug Co. (T. C. P. Baldwin)

Hamilton Rug Works (Allan Brass)

Therien and Company

Turco Persian Rug Renovating Co.

Veteran Rug Weaving Co.

Brinton Carpet Co. Ltd.

Coburg Matting & Carpet Co. Ltd.

Empire Rug Mills

Donald McKinnon & Sons

The Toronto Carpet Manufacturing Co. Ltd.

United Rug Weaving Co.

Novelty Rug Co.

Monarch Pattern and Needle Co.

153 York Street, Hamilton

128 Union St., Preston

Brantford

98 Carling St., London

171 York Street, Hamilton

374 St. Andrew Street, Ottawa

166 Duchess Street, Toronto

1201 A. Queen Street E., Toronto

Box 1065, Peterborough

Coburg

#1 Frank Street, St. Catharines

Box #284, Cobourg

1179 King St. West, Toronto

125 Ewart Avenue, Toronto 9

349-353 Carlaw Ave., Toronto 8

547 Palmerston Blvd., Toronto.

MANITOBA

Capital Carpet & Rug Manufacturing Co. Ltd.

545 Arlington Street, Winnipeg.

SASKATCHEWAN

Textile Weaving & Carpet Cleaning Works

406 20th Street West, Saskatoon.

ALBERTA

Calgary Carpet & Rug Mfgs. (D. A. Stoddart)

Rear 919 17th Ave. W., Calgary.

BRITISH COLUMBIA

Vancouver Fluff Rug Co. (Fredk. S. Lockett)

806 West 17th Ave., Vancouver.





Firms Manufacturing Woollen Goods, n. e. s.

NOVA SCOTIA

Consolidated Rendering Co.

Windsor

Wool Pulling

NEW BRUNSWICK

Joan Kimble & Son, Ltd.

1 - 15 Kimball St.,  
Saint John,

Wool Pulling

QUEBEC

Geo. H. Jackson  
Backwith Box Toe, Ltd.

81 Duke St., Montreal  
66 E. Belvidere St.,  
Sherbrooke

Wool Pulling

Ayers, Ltd.  
Montreal Blanket Co.

Lachute Mills  
5296 St. Patrick St.,  
Montreal

Wool felt goods

Wool felt goods

Shoddy

ONTARIO

Hoffman Bros. Ltd.  
E. Leadley & Co.

53 Trinity St., Toronto  
396 Queen St. W., Toronto

Wool Pulling

Wool Pulling

Toronto Wool Scouring Co.  
Canadian Consolidated Felt Co. Ltd.

2 Mark St., Toronto  
84 Margaret Ave.,  
Kitchener

Wool Pulling

Wool felt goods

Kenwood Mills Ltd.  
Osode Felt & Knitting Co. Ltd.  
The Rumpel Felt Co. Ltd.

Arnprior  
Perth  
60 Victoria Street,  
Kitchener

Wool felt goods

Wool felt goods

Wool Felt goods

Porrits & Spencer (Canada) Ltd.

Lottridge St.,  
Hamilton

Wool felt goods

Brantford Mill Stock Co.

31 Jarvis St.,  
Brantford

Shoddy

Empire Wool Stock Co.

51 Stuart St. West,  
Hamilton

Shoddy

General Wool Stock Co.

121 Logan Ave., Toronto

Shoddy

Home Wool Stock Co.

9 Foster Place, Toronto

Shoddy

Otto Bonath & 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

Burlington Windsor Blanket Co. Ltd.

737-733 King St. West,  
Toronto

Horse Clothing

Canada Wool Stock Co.

257 Niagara St., Toronto

Shoddy

Woolston Limited

486 Wellington St. W.,  
Toronto

Shoddy

BRITISH COLUMBIA

Bissinger and Co.

365 Second Ave. W.,  
Vancouver

Wool Pulling

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