# U. S. DEPARTMENT OF LABOR BUREAU OF LABOR STATISTICS ROYAL MEEKER, Commissioner 

BULLETIN OF THE UNITED STATES $\} \cdots\left\{\begin{array}{l}\text { WHOLE } \\ \text { BUREAU OF LABOR STATISTICS }\} \\ \text { NUMBER }\end{array} \mathbf{3 4}, ~\right.$
WAGES AND HOURS OF LABOR SERIES: No. 4

## WAGES AND HOURS OF LABOR IN THE BOOT AND SHOE AND HOSIERY AND KNIT GOODS INDUSTRIES: 1890 T0 1912



AUGUST 26, 1913

WASHINGTON
GOVERNMENT PRINTING OFFICE

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The field work for 1907 to 1911 in connection with the report on boot and shoe manufacturing and on hosiery and knit goods manufacturing was done under the immediate charge of Eugene A. Logan, and that for 1912 was done under the immediate charge of Frank W. Bird. The reports were prepared and the field work directed by Fred C. Croxton.

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# WAGES AND HOURS OF LABOR IN THE BOOT AND SHOE AND HOSIERY AND KNIT GOODS INDUSTRIES: 1890 T0 1912. 

## BOOT AND SHOE MANUFACTURING.

## GENERAL SUMMARY.

This study of wages and hours of labor in boot and shoe manufacturing shows rates of wages per hour and nominal full-time hours of work per week for the years 1907 to 1912, inclusive, and in addition it summarizes data published in previous reports ${ }^{1}$ of the Bureau of Labor Statistics and thus furnishes a comparison for the 23 -year period, 1890 to 1912, inclusive.

The present report and also previous reports show wages and hours of labor for each of the most important productive occupations in boot and shoe manufacturing, but do not show data for all the occupations in the industry. The occupations for which data are presented in this report are given in the table below. These occupations include a large proportion of the total employees on productive work and approximately thirty per cent of the total employees engaged in productive and nonproductive work.

Comparing 1912 with certain other years the changes in nominal full-time hours per week, as shown by combining the principal occupations, were as follows:

| 1912 compared with 1 | 6. 4 per cent decline. |
| :---: | :---: |
| 1912 compared with 1895 | 6.1 per cent decline. |
| 1912 compared with 1900 | 5. 4 per cent decline. |
| 1912 compared with 1905 | 3.0 per cent decline. |
| 1912 compared | 1. 7 per cent decline |

[^0]The changes in nominal full-time hours per week for each of the principal occupations of the industry during the period from 1907 to 1912, inclusive, as far as data are available, are shown in the table which follows:

PER CENT OF DECREASE IN NOMINAL FULL-TIME HOURS PER WEEK: 1912 COMPARED WITH EACH OF THE 5 YEARS PRECEDING.


Comparing 1912 with certain other years the changes in rates of wages per hour, as shown by combining the principal occupations, were as follows:

| 1912 compared with 1890. | 34.8 per cent advance. |
| :---: | :---: |
| 1912 compared with 1895. | 31.0 per cent advance. |
| 1912 compared with 1900. | 27.6 per cent advance. |
| 1912 compared with 1905. | 10.8 per cent advance. |
| 1912 compared | 2.5 per cent advanc |

The changes in rates of wages per hour for each of the principal occupations of the industry during the period from 1907 to 1912, inclusive, as far as data are available, are shown in the table which follows:

PER CENT OF TNCREASE OR DECREASE IN RATES OF WAGES PER HOUR: 1912 COMPARED WITH EACH OF THE FIVE YEARS PRECEDING.

| Occupation. | Per cent higher (+) or lower ( - ) in 1912 than in- |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1907 | 1908 | 1909 | 1910 | 1911 |
| Cutting department: |  |  |  |  |  |
| Cutters, lining, cloth, male. . | (1) | ${ }^{1}$ 1) | (1) | (1) | +3.7 |
| Cutters, vamp and whole shoe, hand, male. | $+8.8$ | +6.3 | $+3.9$ | +2.5 | +3.1 |
| Cutters, vamp and whole shoe, machine, male. | (1) | (1) | (1) | +1.5 | +1.9 |
| Skivers, upper, machine, male. | (1) | (1) | (1) | $+7.8$ | $-1.2$ |
| Skivers, upper, machine, female | +14.0 | +11.4 | +11.7 | +9.4 | $+8.9$ |
| Sole-leather department: Channelers, insole and outsole, male. |  |  |  |  |  |
| Channelers, insole and outsole, male. | +12.0 +2.2 | +7.0 +4.5 | +3.6 +4.8 | +5.5 +4.0 | +2.3 +2.7 |
| Fitting or stitching department: |  | $+4.5$ |  | +4.0 | +2.7 |
| Backstay stitchers, female.. | $+9.3$ | $+.5$ | $+5.5$ | +4.2 | +2.1 |
| Button fasteners, female. | (1) | (1) | (1) | (1) | +16.5 |
| Buttonhole makers, female | (1) | ( ${ }^{1}$ | (1) | (1) | $+2.5$ |
| Closers-on, female.. | +2.1 | +7.6 | $-1.3$ | +3.3 | +3.8 |
| Lining makers, female | -5.1 | $+.6$ | $-3.8$ | +1.9 | +3.2 |
| Tip stitchers, female.. | (1) | (1) | (1) | (1) | +5.3 |
| Top stitchers or undertrimmers, femal | +12.2 | $+9.3$ | +5.9 | +3.6 | +1.9 |
| Vampers, male...................... . . . . | $-5.5$ | $+4.7$ | +4.8 | +2.1 | -1.5 |
| Vampers, female. | $+2.3$ | +4.0 | $-.2$ | -1.9 | $-2.1$ |
| Lasting department: |  |  |  |  |  |
| Assemblers, for pulling-over machine, male | ${ }^{(1)} 5$ | ${ }^{(1)}$ | $\mathrm{Cl}^{(1)}$ | ${ }^{(1)}$ | $-3.4$ |
| Bed-machine operators.. | $-9.5$ | $-5.1$ | $-7.6$ | $-1.5$ | -5.2 |
| Hand-method lasting machine operators, male | $+7.3$ | $+8.7$ | +8.1 | +3.6 | +2.5 |
| Pullers-over, hand, male........................... | $+16.9$ | $+20.1$ | +4.4 | +8.3 | +2.2 |
| Pullers-over, machine, male | $\left.{ }^{1}\right)$ | (1) | ( ${ }^{\text {d }}$ | -4.5 | -4.0 |
| Bottoming department: |  |  |  |  |  |
|  |  |  |  |  |  |
| Edge setters, male. | $+.5$ | +14.5 | +5.6 | +4.3 | +2.4 |
| Edge trimmers, male | $+.3$ | $+5.0$ | +2.1 | +1.2 | $-.9$ |
| Goodyear stitchers, male | $-1.9$ | +6.3 | $+1.3$ | +3.1 | $-.5$ |
| Goodyear welters, male | $+10.1$ | +10.1 | +1.5 | +6.6 | $+.5$ |
| Heel breasters, male. | (1) | $\left.{ }^{1}\right)$ | ${ }^{1}$ (1) | (1) | +3.8 |
| Heel burnishers, male | (1) | (1) | (1) | (1) | +2.1 |
| Heelers, male........ | (1) | (1) | (1) | (1) | -3.2 |
| Heel scourers, male. | (1) | ${ }^{1}$ | (1) | (1) | +1.1 |
| Heel-seat nailers, male | (1) | (1) | (1) | (1) | -9.4 |
| Heel sluggers, male... | (1) | (1) | (1) | (1) | +1.9 |
| Heel trimmers or shavers, male | +2.3 | +2.2 | + | +1.2 | -. 2 |
| Levelers, male....... | (1) | (1) | (1) | (1) | +4.1 |
| McKay sewers, male. | -6.4 | -13.5 | $-1.6$ | $-3.4$ | $-3.5$ |
| Rough rounders, male. | +15.1 | +21.0 | $+2.7$ | +8.4 | $+.5$ |
| Finishing department: |  |  |  |  |  |
| Treers or ironers, hand, male. | -7.1 | $-3.7$ | $-3.2$ | $-1.6$ | -1.9 |
| Treers or ironers, hand, female | (1) | (1) | (1) | +7.0 | +6.5 |
| Total. | +3.8 | +5.8 | +1.8 | $+2.5$ | +0.8 |

${ }^{1}$ No data.
The next table shows for the industry the course of nominal fulltime hours per week and the rates of wages per hour during the $23-$ year period from 1890 to 1912. The occupations combined and the sex for which data are shown each year are indicated in the table on pages 9 to 15 .
The figures of the table are relative hours of labor and relative wages computed from the actual hours and wages in the establishments furnishing data. They also show the per cent of change from year to year as measured by the average from 1890 to 1899.

By nominal full-time hours per week is meant the usual full working time, such as prevails when there is no industrial depression or other unusual factor affecting the industry.
In combining the relatives for the principal occupations to determine the relatives for the industry shown in the table which follows, the relatives for each occupation were weighted according to the number of employees reported each year. This weighting causes the figures for 1890 to 1907 to differ slightly from those shown for the industry in Bulletin No. 77 (July, 1908), where the relative for the industry was a simple average of occupation relatives. Under these two methods, the difference in relative hours does not exceed 0.4 per cent in any of the 18 years, and the difference in relative wages does not exceed 1 per cent in 8 of the 18 years, the greatest difference being about 3.7 per cent. The base used in computing the relatives in this table is the average for the 10 -year period, 1890 to 1899.

## RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN BOOT AND SHOE MANUFACTURING, 1890 TO 1912.

[Data are included from 46 establishments, 1890-1903; 50 establishments, 1903, 1904; 52 establishments, 1904, 1905; 52 establishments, 1905, 1906; 54 establishments, 1906, 1907; 26 establishments, 1907-1910; 60 establishments, 1910, 1911; and 81 establishments, 1911, 1912.]

| Year. | Relative nominal full-time hours per week. | Relative rate of wages per hour. |
| :---: | :---: | :---: |
| Average, 1890-1899. | 100.0 | 100.0 |
| 1890. | 100.3 | 98.5 |
| 1891. | 100.6 | 97.5 |
| 1892. | 100.2 | 99.3 |
| 1893. | 100.0 | 100.6 |
| 1894. | 100.0 | 99.8 |
| 1895. | 100.0 | 101.4 |
| 1896. | 100.0 | 100.5 |
| 1897. | 99.8 | 100.7 |
| 1898. | 99.7 | 100.5 |
| 1899. | 99.6 | 101.8 |
| 1900. | 99.3 | 104.1 |
| 1901. | 99.6 | 104.1 |
| 1902. | 98.4 | 108.0 |
| 1903. | 97.0 | 113.2 |
| 1904. | 97.1 | 116.9 |
| 1905. | 96.8 | 119.9 |
| 1906. | 96.3 | 121.8 |
| 1907. | 96.0 | 128.0 |
| 1908. | 95.9 | 125.5 |
| 1909. | 95.7 | 130.4 |
| 1910. | 95.5 | 129.6 |
| 1911. | 95.3 | 131.7 |
| 1912. | 93.9 | 132.8 |

The table which follows shows, for each of the principal occupations in the industry, relative nominal full-time hours per week and relative rates of wages per hour during the 23 -year period 1890 to 1912 . As indicated in this table many changes in the occupations included have been made from time to time during the period covered. The base used for computing the relatives for each occupation, except as noted, is the average of the 10 -year period, 1890 to 1899.

RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANU. FACTURING, 1890 TO 1912.
[Data are included from 46 establishments, 1890-1903; 50 establishments, 1903, 1904; 52 establishments, 1904, 1905; 52 establishments, 1905, 1906; 54 establishments, 1906, 1907; 26 establishments, 1907-1910; 60 establishments, 1910, 1911; and 81 establishments, 1911, 1912.]

| Year. | Cutting department. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cutters, lining, cloth, male. |  | Cutters, vamp and whole shoe, hand, 1 male. |  | Cutters, vamp and whole shoe, machine, male. |  | Skivers, upper, machine, male. |  | Skivers, upper, machine, female. |  |
|  |  | Relative rate of wages wages hour. |  | Relative rate of wages per hour. |  | Relative rate of wages per hour. | Relative nominal full-time hours per week. | Relative rate of wages per hour. | Relative nominal full-time hours per week. | Relative rate of wages per hour. |
| Average: 1890-1899 |  |  | . 100.0 | 100.0 |  |  |  |  |  |  |
| 1890. |  |  | 100.1 | 99.9 |  |  |  |  |  |  |
| 1891. |  |  | 100.2 | 99.4 |  |  |  |  |  |  |
| 1892. |  |  | 100.2 | 99.8 |  |  |  |  |  |  |
| 1893. |  |  | 100.2 | 100.4 |  |  |  |  |  |  |
| 1894. |  |  | 100.0 | 98.0 |  |  |  |  |  |  |
| 1895. |  |  | 99.8 | 100.0 |  |  |  |  |  |  |
| 1896. |  |  | 100.0 | 99.1 |  |  |  |  |  |  |
| 1897. |  |  | 99.9 | 101.0 |  |  |  |  |  |  |
| 1898. |  |  | 100.0 | 99.7 |  |  |  |  |  |  |
| 1899. |  |  | 99.7 | 102.8 |  | - |  |  |  |  |
| 1900. |  |  | 99.7 | 103.3 |  |  |  |  |  |  |
| 1901. |  |  | 99.8 | 102.6 |  |  |  |  |  |  |
| 1902. |  |  | 98.4 | 107.4 |  |  |  |  |  |  |
| 1903. |  |  | 96.6 | 110.8 |  |  |  |  |  |  |
| 1904. |  |  | 96.9 | 114.2 |  |  |  |  |  |  |
| 1905. |  |  | 96.2 | 117.3 |  |  |  |  |  |  |
| 1906. |  |  | 95.8 | 118.8 |  |  |  |  |  |  |
| 1907. |  |  | 95.5 9.3 | 126.8 |  |  |  |  | $21000$ |  |
| $\begin{aligned} & 1998 \\ & 1909 . \end{aligned}$ |  |  | 95.3 95.1 | 129.7 |  |  |  |  | 2100.7 2100.3 | 2102.3 2102.1 |
| 1909. |  |  | 95.1 | 132.7 |  |  |  |  | ${ }^{2} 100.3$ | ${ }^{2} 102.1$ |
| 1910. |  |  | 95.1 | 134.6 | ${ }^{3} 100.0$ | ${ }^{3} 100.0$ | ${ }^{3} 100.0$ | ${ }^{3} 100.0$ | 299.8 | 2104.2 |
| 1911. | 1100.0 | 100.0 | 94.9 | 133.8 | ${ }^{3} 99.0$ | 3 109.6 | ${ }^{8} 100.0$ | ${ }^{8} 100.1$ | 2100.3 | 2104.7 |
| 1912. | 498.9 | 4 103.7 | 92.9 | 137.9 | ${ }^{3} 96.4$ | ${ }^{3} 101.5$ | ${ }^{8} 99.6$ | ${ }^{3} 107.8$ | 297.0 | 2114.0 |

[^1]RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAI OCCUPATIONS IN BOOT AND SHOE MANUFACTURING, 1890 TO 1912-Continued.

| Year. | Sole-leather department. |  |  |  | Fitting or stitching department. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Channelers, insole and outsole, male. |  | Cutters, outsole. male. |  | Backstay stitchers, female. |  | Button fasteners, female. |  | Buttonhole makers, female. |  | Closers-on, female. |  |
|  | Relative nominal fulltime hours per week. | $\begin{gathered} \text { Rela- } \\ \text { tive } \\ \text { rate of } \\ \text { wages } \\ \text { per } \\ \text { hour. } \end{gathered}$ | Relative nominal fulltime hours per week. | Relative rate of wages per hour. | Relative nominal fulltime hours per week. | Relarate of wages per hour. | Relative nominal fulltime hours per week. | Rela- tive rate of wages per hour. | Relative nominal fulltime hours per week. | Relative rate of wages per hour. | Relative nominal fulltime hours per week. | Relative rate of wages per hour. |
| Average: 1890-1899 |  |  | 100.0 | 100.0 |  |  |  |  |  |  | 100.0 | 100.0 |
| 1890. |  |  | 100.2 | 102.0 |  |  |  |  |  |  | 100.3 | 90.7 |
| 1891. |  |  | 101.7 | 99.5 |  |  |  |  |  |  | 100.5 | 96.8 |
| 1892. |  |  | 100.2 | 99.1 |  |  |  |  |  |  | 99.9 | 98.3 |
| 1893. |  |  | 99.8 | 100.1 |  |  |  |  |  |  | 100.1 | 100.4 |
| 1894. |  |  | 99.7 | 96.8 |  |  |  |  |  |  | 100.1 | 103.6 |
| 1895. |  |  | 99.8 | 100.2 |  |  |  |  |  |  | 99.6 | 98.4 |
| 1896. |  |  | 99.7 | 98.8 |  |  |  |  |  |  | 99.7 | 103.3 |
| 1397. |  |  | 99.6 | 101.2 |  |  |  |  |  |  | 99.7 | 105.2 |
| 1898. |  |  | 99.7 | 101.4 |  |  |  |  |  |  | 100.4 | 100.1 |
| 1899. |  |  | 99.7 | 100.6 |  |  |  |  |  |  | 99.7 | 102.9 |
| 1900. |  |  | 99.8 | 102.2 |  |  |  |  |  |  | 99.5 | 102.4 |
| 1901. |  |  | 99.6 | 100.5 |  |  |  |  |  |  | 99.3 | 105.5 |
| 1902. |  |  | 99.6 | 103.5 |  |  |  |  |  |  | 99.4 | 103.4 |
| 1903. |  |  | 98.2 | 106.0 |  |  |  |  |  |  | 98.8 | 108.4 |
| 1904. |  |  | 98.6 | 109.2 |  |  |  |  |  |  | 98.9 | 106.1 |
| 1905. |  |  | 98.5 | 109.9 |  |  |  |  |  |  | 98.8 | 109.0 |
| 1906. |  |  | 98.0 | 111.9 |  |  |  |  |  |  | 98.4 | 111.1 |
| 1907. | 1100.0 | 1100.0 | 98.0 | 114.3 | 1100.0 | 1100.0 |  |  |  |  | 96.9 | 112.3 |
| 1908. | 1100.0 | 1104.7 | 97.5 | 111.8 | 199.8 | 1108.8 |  |  |  |  | 96.6 | 106.6 |
| 1909. | 199.3 | 1108.1 | 97.5 | 111.4 | 199.5 | ${ }^{1} 103.6$ |  |  |  |  | 96.6 | 116.2 |
| 1910. | 199.3 | 1106.2 | 97.3 | 112.3 | 199.3 | 1104.9 |  |  |  |  | 96.4 | 111.0 |
| 1911. | 199.1 | 1109.5 | 97.1 | 113.7 | 199.3 | 1107.1 | 2100.0 | 2100.0 | 2100.0 | 2100.0 | 96.4 | 110.5 |
| 1912. | 197.7 | 1112.0 | 96.8 | 116.8 | 197.0 | 1109.3 | 299.1 | 2116.5 | 298.4 | 2102.5 | 93.0 | 114.7 |

[^2]RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANU FACTURING, 1890 TO 1912-Continued.

| Year. | Fitting or stitching department-Concluded. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lining makers, female. |  | Tip s itchers, female. |  | Top stitchers or undertrimmers, female. |  | Vampers, male. |  | Vampers, female. |  |
|  | Relative nominal fulltime hours per Week. | Relative rate of wages per hour. | Relative nominal fulltime hours per week. | Relative rate of wages per hour. | Relative nominal fulltime hours per week. | Relative rate of wages per hour. | Relative nominal <br> full-time <br> hours per week. | Relative rato of wages per hour. | Relative nominal full-time hours per week. | Relative rate of wages per hour. |
| Average: 1800-1898 |  |  |  |  |  |  | 100.0 | 100.0 | 100.0 | 100.0 |
| 1890. |  |  |  |  |  |  | 95.8 | 112.3 | 100.4 | 99.9 |
| 1891. |  |  |  |  |  |  | 101.9 | 97.3 | 100.2 | 93.7 |
| 1892. |  |  |  |  |  |  | 102.4 | 92.4 | 100.4 | 98.3 |
| 1893. |  |  |  |  |  |  | 100.2 | 95.6 | 100.1 | 101.6 |
| 1894. |  |  |  |  |  |  | 99.7 | 89.4 | 99.9 | 102.3 |
| 1895. |  |  |  |  |  |  | 99.8 | 90.7 | 99.9 | 103.2 |
| 1896. |  |  |  |  |  |  | 100.0 | 101.5 | 99.6 | 102.0 |
| 1897. |  |  |  |  |  |  | 100.2 | 111.4 | 99.5 | 100.8 |
| 1898. |  |  |  |  |  |  | 100.3 | 103.0 | 100.1 | 99.4 |
| 1899. |  |  |  |  |  |  | 99.5 | 106.7 | 99.8 | 98.5 |
| 1900. |  |  |  |  |  |  | 100.5 | 110.6 | 99.7 | 103.0 |
| 1901. |  |  |  |  |  |  | 100.1 | 106.0 | 99.6 | 103.9 |
| 1902. |  |  |  |  |  |  | 99.4 | 114.7 | 99.2 | 104.5 |
| 1903. |  |  |  |  |  |  | 93.9 | 127.1 | 98.5 | 110.5 |
| 1904. |  |  |  |  |  |  | 96.3 | 124.4 | 98.5 | 110.7 |
| $1905 .$ |  |  |  |  |  |  | 96.5 | 120.4 | 98.6 | 115.4 |
| $1906 .$ |  |  |  |  |  |  | 96.1 | 127.5 | 98.2 | 120.9 |
| 1907. | 1100.0 | 1100.0 |  |  | 1100.0 | 1100.0 | 96.4 | 128.2 | 97.8 | 124.9 |
| 1908. | 199.8 | 194.3 |  |  | 1100.0 | 1102.7 | 96.9 | 115.8 | 98.2 | 122.9 |
| 1909. | 199.6 | ${ }^{1} 98.6$ |  |  | I 100.0 | 1105.9 | 95.8 | 115.7 | 97.5 | 128.1 |
| 1910. | 199.4 | 193.1 |  |  | 199.5 | 1108.3 | 95.6 | 118.7 | 97.5 | 130.3 |
| 1911. | 199.4 | 192.0 | 2100.0 | 2100.0 | 199.3 | 1110.1 | 95.9 | 123.0 | 97.2 | 130.5 |
| 1912. | - 196.8 | 194.9 | 298.9 | ${ }^{2} 105.3$ | ${ }^{1} 96.2$ | 1112.2 | 94.9 | 121.2 | 94.8 | 127.8 |

[^3]RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND REIATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAI OCCUPATIONS IN BOOT AND SHOE MANU. FACTURING, 1890 TO 1912-Continued.

| Year. | Lasting department. |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Assemblers, for pullingover machine, male. |  | Bed-machineoperators,male. |  | Hand-method lasting machine operators, male. |  | Lasters, machine, 1 male. |  | Pullers-over, hand, male. |  | Pullers-over, machine, female. |  |
|  | Relative nominal fulltime hours per week. | Relative rate of wages per hour. | Relative nominal fulltime hours per week. | Relative rate of wages per hour. | Relative nominal fulltime hours per week. | Relative rate of wages per hour. | Relative nominal fulltime hours per week. | Relative rate of wages per hour. | Relative nominal fulltime hours per week. | Relative rate of wages per hour. | Relative nominal fulltime hours per week. | Relative rate of wages per hour. |
| Average: 1890-1899 |  |  |  |  |  |  | 100.0 | 100.0 |  |  |  |  |
| 1890 |  |  |  |  |  |  | 99.5 | 97.3 |  |  |  |  |
| 1891. |  |  |  |  |  |  | 100.2 | 98.1 |  |  |  |  |
| 1892. |  |  |  |  |  |  | 100.0 | 101.2 |  |  |  |  |
| 1893. |  |  |  |  |  |  | 99.8 | 96.1 |  |  |  |  |
| 1894. |  |  |  |  |  |  | 100.6 | 101.3 |  |  |  |  |
| 1895. |  |  |  |  |  |  | 100.5 | 101.1 |  |  |  |  |
| 1896. |  |  |  |  |  |  | 100.5 | 103.9 |  |  |  |  |
| 1897. |  |  |  |  |  |  | 100.0 | 97.6 |  |  |  |  |
| 1898. |  |  |  |  |  |  | 98.6 | 103.9 |  |  |  |  |
| 1899. |  |  |  |  |  |  | 100.3 | 100.6 |  |  |  |  |
| 1900. |  |  |  |  |  |  | 98.8 | 103.0 |  |  |  |  |
| 1901. |  |  |  |  |  |  | 99.9 | 106.6 |  |  |  |  |
| 1902. |  |  |  |  |  |  | 98.5 | 114.4 |  |  |  |  |
| $1903 .$ |  |  |  |  |  |  | 97.8 | 120.1 |  |  |  |  |
| 1904. |  |  |  |  |  |  | 98.0 | 125.4 |  |  |  |  |
| 1905. |  |  |  |  |  |  | 98.0 | 128.0 |  |  |  |  |
| $1906 .$ |  |  |  |  |  |  | 97.6 | 132.4 |  |  |  |  |
| $1907 .$ |  |  | 2100.0 | 2100.0 | 21000 | 2100.0 | 96.6 | 135.2 |  |  |  |  |
| 1908. |  |  | $2100.2$ | 295.4 | 299.1 | 298.7 298 |  |  | $2100.0$ | $297.3$ |  |  |
| 1909. |  |  | 2100.2 | 297.9 | 299.3 | 299.3 |  |  | 299.3 | 2112.0 |  |  |
| 1910. |  |  | 2100.6 | 291.9 | 298.2 | $2103.6$ |  |  | 298.8 | 2107.9 | 100.0 | 3100.0 |
| 1911. | 4100.0 | 4100.0 | $\stackrel{100.1}{ }$ | $295.5$ | $298.0$ | $2104.7$ |  |  | 298.5 | 2114.4 | ${ }^{8} 988.4$ | 899.5 |
| 1912. | $\mathrm{I}^{198.9}$ | 496.6 | 299.0 | 290.5 | 295.9 | 2107.3 |  |  | 296.9 | 2116.9 | 597.5 | 395.5 |

[^4]RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANUFACTURING, 1890 TO 1912-Continued.

| Year. | Bottoming department. |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Buffers, male. |  | Edge setters, male. |  | Edge trimmers, male. |  | Goodyear stitchers, male. |  | Goodyear welters, male. |  | Heel breasters, male. |  |
|  | Rela- tive nomi- nal full- time hours per week. | Relarate of wages per hour. | Relative nominal fulltime hours per week. | Relative rate of wages per hour. | Relative nominal fulltime hours per week. | Relative rate of wages per hour. | Relative nominal fulltime hours per week. | Relative rate of wages per hour. | Relative nominal fulltime hours per week. | Relative rate of wages per hour. | Relative nominal fulltime hours per week. | Relative rate of wages per hour. |
| Average: 1890-1899 |  |  |  |  | 100.0 | 100.0 | 100.0 | 100.0 |  |  |  |  |
| 1890. |  |  |  |  | 100.8 | 97.7 | 101.3 | 88.6 |  |  |  |  |
| 1891. |  |  |  |  | 100.8 | 97.2 | 100.6 | 93.9 |  |  |  |  |
| 1892. |  |  |  |  | 101.0 | 99.2 | 100.5 | 96.5 |  |  |  |  |
| 1893 |  |  |  |  | 100.8 | 105.1 | 100.7 | 96.4 |  |  |  |  |
| 1894. |  |  |  |  | 99.8 | 99.2 | 99.5 | 99.6 |  |  |  |  |
| 1895. |  |  |  |  | 99.5 | 103.1 | 99.8 | 100.9 |  |  |  |  |
| 1896. |  |  |  |  | 99.7 | 99.2 | 99.6 | 98.6 |  |  |  |  |
| 1897. |  |  |  |  | 99.9 | 100.4 | 99.7 | 108.4 |  |  |  |  |
| 1898. |  |  |  |  | 98.5 | 99.9 | 99.5 | 106.6 |  |  |  |  |
| 1899. |  |  |  |  | 99.2 | 99.0 | 98.9 | 110.4 |  |  |  |  |
| 1900. |  |  |  |  | 98.2 | 105.3 | 98.8 | 115.6 |  |  |  |  |
| 1901. |  |  |  |  | 99.2 | 105.0 | 98.7 | 117.3 |  |  |  |  |
| 1902. |  |  |  |  | 97.3 | 110.1 | 95.1 | 121.7 |  |  |  |  |
| 1903. |  |  |  |  | 95.8 | 114.7 | 94.4 | 131.0 |  |  |  |  |
| 1904. |  |  |  |  | 95.7 | 116.4 | 94.6 | 133.2 |  |  |  |  |
| 1905. |  |  |  |  | 95.6 | 118.7 | 94.9 | 130.2 |  |  |  |  |
| 1906. |  |  |  |  | 94.9 | 118.9 | 94.2 | 128.1 |  |  |  |  |
| 1907. |  |  | 1100.0 | 1100.0 | 95.1 | 127.1 | 94.0 | 132.2 | 1100.0 | 1100.0 |  |  |
| 1908. |  |  | 1100.4 | 187.8 | 94.8 | 121.4 | 93.7 | 123.2 | 1100.2 | 1100.0 |  |  |
| 1909. |  |  | 1100.2 | ${ }^{1} 95.2$ | 95.0 | 124.9 | 94.0 | 129.3 | 199.7 | 1108.5 |  |  |
| $1910 .$ |  |  | 199.8 | 196.4 | 94.7 | 126.0 | 93.8 | 127.0 | 199.5 | ${ }^{1} 103.3$ |  |  |
| $1911 .$ | 2100.0 | 100.0 | 199.8 | 198.1 | 94. 4 | 128.7 | 93.3 | 131.7 | 199.1 | 1109.5 | 100.0 | 2100.0 |
| 1912. | 2100.0 | 2104.4 | 198.9 | 1100.5 | 94.1 | 127.5 | 93.3 | 131.0 | 198.7 | 1110.1 | 299.3 | 2103.8 |

1 Data for 1890 to 1906 not available; computed with $1907=100.0$.
2 Data for 1890 to 1910 not available; computed with $1911=100.0$.

RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANU. FACTURING, 1890 TO 1912-Continued.

| Year. | Bottoming department-Continued. |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Heel burnishers, male. |  | Heel scourers, male. |  | Heel-seat nailers, male. |  | Heel sluggers, male. |  | Heel trimmers or shavers, ${ }^{1}$ male. |  | Heelers, male. |  |
|  | $\begin{gathered} \text { Rela- } \\ \text { tive } \\ \text { nomi- } \\ \text { nal } \\ \text { full- } \\ \text { time } \\ \text { hours } \\ \text { per } \\ \text { week. } \end{gathered}$ | $\begin{gathered} \text { Rela- } \\ \text { tive } \\ \text { rate of } \\ \text { wages } \\ \text { per } \\ \text { hour. } \end{gathered}$ |  | Relative rate of wages per | $\begin{gathered} \text { Rela- } \\ \text { tive } \\ \text { nomi- } \\ \text { nal } \\ \text { full- } \\ \text { time } \\ \text { hours } \\ \text { per } \\ \text { week. } \end{gathered}$ | $\begin{aligned} & \text { Relas } \\ & \text { tive } \\ & \text { rate of } \\ & \text { wages } \\ & \text { perr } \\ & \text { hour. } \end{aligned}$ |  | Rela- tive rate of wages per hour. | Rela-nominaI fullhours per week | Relative rate of wages per hour. | $\begin{gathered} \text { Rela- } \\ \text { tive } \\ \text { nomi- } \\ \text { nal } \\ \text { full- } \\ \text { lime } \\ \text { hours } \\ \text { per } \\ \text { week. } \end{gathered}$ | Relative rate of wages hour. |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1890. |  |  |  |  |  |  |  |  | 101.6 | 91.9 |  |  |
| 1891. |  |  |  |  |  |  |  |  | 100.7 | 90.8 |  |  |
| 1892. |  |  |  |  |  |  |  |  | 100.7 | 97.0 |  |  |
| 1893. |  |  |  |  |  |  |  |  | 100.4 | 104.7 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1895. |  |  |  |  |  |  |  |  | 99.4 | 103.6 |  |  |
| 1896 |  |  |  |  |  |  |  |  |  | 101.0 |  |  |
| 1897. |  |  |  |  |  |  |  |  | 99.3 | 10.3 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1900. |  |  |  |  |  |  |  |  | 97.7 | 104.8 |  |  |
| 1901. |  |  |  |  |  |  |  |  | ${ }_{96}^{97.6}$ | 105.5 |  |  |
| 1902. 1903. |  |  |  |  |  |  |  |  | 96.7 | ${ }^{106.9}$ |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1905. |  |  |  |  |  |  |  |  | 96.1 | 125.1 |  |  |
| 1906. |  |  |  |  |  |  |  |  | 95.0 | 127.4 |  |  |
| 1907. |  |  |  |  |  |  |  |  | 94.7 | 129.6 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | 131.0 |  |  |
| $\begin{aligned} & 1910 . \\ & 1912 . \end{aligned}$ | 2100.0 | 2100.0 | 2100.0 | 200.0 | 2100.0 | 2100.0 | 2100.0 | 2100.0 | 94.7 | 132.8 | 2100.0 | 2100.0 |
|  | 299.6 | 2102.1 | 2101.3 | 101.1 | 2100.0 | 290.6 | 299.8 | 2101.9 | 93.9 | 132.6 | 299.8 | 296.8 |

1 Employees in this occupation were reported as heel trimmers for 1890 to 1907.
${ }^{2}$ Data for 1890 to 1910 not available; computed with $1911=100.0$.

RELATIVE NOMTNAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANUFACTURING, 1890 TO 1912-Concluded.

| Year. | Bottoming department-Concluded. |  |  |  |  |  | Finishing department. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Levelers, male. |  | McKay sewers, male. |  | Rough rounders, male. |  | Treers or ironers, hand, male. |  | Treers or ironers, hand, female. |  |
|  | Relative nominal fulltime hours per week. | Relative rate of wages per hour. | Relative nominal fulltime hours per week. | Relative rate of wages per hour. | Relative nominal fulltime hours per weak. | Relative rate of wages per hour. | Relative nominal full-time hours per week. | Relative rate of wages per hotr. | Relative nominal full-time hours per week. | Relative rate of wages per hour. |
| Average: 1890-1899 |  |  | 100.0 | 100.0 |  |  | 100.0 | 100.0 |  |  |
| 1890. |  |  | 101.6 | 95.0 |  |  | 100.1 | 101.4 |  |  |
| 1891. |  |  | 101.5 | 94.1 |  |  | 100.7 | 97.4 |  |  |
| 1892. |  |  | 100.4 | 99.3 |  |  | 99.4 | 98.8 |  |  |
| 1893. |  |  | 100.4 | 104.4 |  |  | 99.0 | 100.4 |  |  |
| 1894. |  |  | 99.8 | 100.6 |  |  | 99.7 | 101.4 |  |  |
| 1895. |  |  | 100.2 | 104.3 |  |  | 100.9 | 100.9 |  |  |
| 1896. |  |  | 99.8 | 98.9 |  |  | 100.3 | 101.6 |  |  |
| 1897. |  |  | 99.1 | 101.2 |  |  | 99.9 | 97.9 |  |  |
| 1898. |  |  | 98.5 | 102.6 |  |  | 100.3 | 97.7 |  |  |
| 1899. |  |  | 98.6 | 99.6 |  |  | 99.7 | 102.6 |  |  |
| 1900. |  |  | 96.4 | 99.9 |  |  | 99.6 | 107.9 |  |  |
| 1901. |  |  | 98.0 | 99.1 |  |  | 99.8 | 105.5 |  |  |
| 1902. |  |  | 96.7 | 100.7 |  |  | 98.2 | 110.0 |  |  |
| 1903. |  |  | 96.6 | 103.6 |  |  | 96.0 | 123.4 |  |  |
| 1904. |  |  | 96.3 | 103.5 |  |  | 95.9 | 123.3 |  |  |
| 1905. |  |  | 95.8 | 102.2 |  |  | 95.9 | 126.0 |  |  |
| 1906. |  |  | 95.7 | 104.3 |  |  | 95.2 | 122.3 |  |  |
| 1907. |  |  | 95.2 | 101.0 | 1100.0 | 1100.0 | 95.5 | 135.6 |  |  |
| 1908. |  |  | 95.4 | 109.2 | 1100.0 | 195.1 | 95.1 | 130.9 |  |  |
| 1909. |  |  | 96.1 | 96.0 | 199.6 | 1112.1 | 95.3 | 130.2 |  |  |
| 1910. |  |  | 95.2 | 97.8 | 199.1 | ${ }^{1} 106.2$ | 95.1 | 128.0 | 2100.0 | 2100.0 |
| 1911. | 3100.0 | 3100.0 | 94.5 | 97.9 | 198.8 | 1114.5 | 95.4 | 128.4 | 299.8 | ${ }^{2} 100.5$ |
| 1912. | 399.8 | 3104.1 | 94.2 | 94.5 | 198.1 | 1115.1 | 95.2 | 126.0 | 293.3 | 2107.0 |

1 Data for 1890 to 1906 not available; computed with $1907=100.0$.
${ }^{2}$ Data for 1890 to 1909 not available; computed with $1910=100.0$.
${ }^{3}$ Data for 1890 to 1910 not available; computed with $1911=100.0$.
The most significant facts concerning nominal full-time working hours per week and rates of wages per hour in each of the principal occupations of the industry are shown for 1907 to 1912 , or for such of those years as data are available, in the table which follows.

The data for the several years 1907 to 1911 were secured in 1911. Owing to the difficulty of finding records for past years and also owing to the great amount of work involved, data for 1907 to 1909 were secured from only a limited number of establishments. Data for 1910 and 1911 were obtained from a larger number of establishments.

In 1912 data were gathered for the year 1912 from the establishments that furnished data for 1911, and at the same time some additional data relating to 1911 and 1912 were gathered from a few new establishments, the scope of the work being enlarged to include a greater number of establishments.

To permit a comparison of data from year to year the data for identical establishments are grouped together. A true comparison can be made, of course, only of data from the same establishments. Data for 1912 from new establishments are included in this tabulation only when it was possible to get like data for 1911 from the same establishments. The data are for the pay-roll period ending nearest February 15 each year, except for a very few establishments in which conditions in February were particularly abnormal.
AVERAGE NOMINAL FULI-TIME HOURS OF WORK PER WEEK AND AVERAGE RATE OF WAGES PER HOUR IN EACH OF THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANUFACTURING, 1907 TO 1912.
[The establishments set opposite each bracketed group of years are identical.]

| Occupation, sex, and number of establishments. | Year. | Number of employees. | Average nominal full-time hours per week. | Average rate of wages per hour. |
| :---: | :---: | :---: | :---: | :---: |
| Cutting department. |  |  |  |  |
| rutters, lining, cloth, male: 31 establishments. | 1911 | 115 | $\begin{array}{r} 55.4 \\ 54.4 \end{array}$ | $\$ 0.2701$ .2800 |
| Cutters, vamp and whole shoe, hand, male: 20 establishments.................... | 1907 1908 1909 1910 | 919 907 907 802 | 54.9 54.9 54.7 54.7 | .3350 .3323 .3399 .3448 |
| 48 establishments. | $\begin{aligned} & 1910 \\ & 1911 \end{aligned}$ | 1,650 1,602 | $\begin{aligned} & 56.3 \\ & 56.2 \end{aligned}$ | . 3188 |
| 64 establishments. | 1911 | $\begin{aligned} & 2,066 \\ & 1,906 \end{aligned}$ | $\begin{aligned} & 56.2 \\ & 55.0 \end{aligned}$ | $\begin{aligned} & .3127 \\ & .3222 \end{aligned}$ |
| Cutters, vamp and whole shoe, machine, male: 17 establishments. | 1910 | $\begin{aligned} & 235 \\ & 226 \end{aligned}$ | $\begin{aligned} & 57.8 \\ & 57.2 \end{aligned}$ | $\begin{array}{r} 3013 \\ .3000 \end{array}$ |
| 20 establishments. | 1911 | 270 300 | 57.0 55.5 | . 3128 |
| Skivers, upper, machine, male: 12 establishments. | $\begin{aligned} & 1910 \\ & 1911 \end{aligned}$ | $\begin{array}{r}300 \\ 74 \\ 79 \\ \hline\end{array}$ | 55.5 54.7 54.7 | $\begin{array}{r} .2878 \\ .3139 \end{array}$ |
| 28 establishments. | $\begin{aligned} & 1911 \\ & 1912 \end{aligned}$ | $\begin{aligned} & 136 \\ & 146 \end{aligned}$ | $\begin{aligned} & 54.8 \\ & 54.6 \end{aligned}$ | . 28281 |
|  |  |  |  |  |
| 13 establishments. | 1907 1909 | 70 79 | 56.1 56.3 56.0 | .1918 .1914 |
|  | 1910 | 85 | 56.0 | . 1954 |
| 49 establishments. | $\begin{aligned} & 1910 \\ & 1911 \end{aligned}$ | $\begin{aligned} & 338 \\ & 314 \end{aligned}$ | $\begin{aligned} & 57.0 \\ & 57.3 \end{aligned}$ | $\begin{array}{r} .1749 \\ .1757 \end{array}$ |
| 60 establishments. | $\begin{aligned} & 1911 \\ & 1912 \end{aligned}$ | $\begin{aligned} & 374 \\ & 345 \end{aligned}$ | $\begin{aligned} & 57.0 \\ & 55.1 \end{aligned}$ | $\begin{array}{r} .1758 \\ .1914 \end{array}$ |
| Sole-leather department. |  |  |  |  |
|  |  |  |  |  |
| 10 establishments. | 1908 | ${ }_{23}^{23}$ | 55.1 55.1 | . 28962 |
|  | 1909 | ${ }_{23}^{23}$ | 54.7 54.7 | . 3057 |
|  |  |  | 5.7 |  |
| 44 establishments. | 1910 1911 | $\begin{aligned} & 138 \\ & 140 \end{aligned}$ | $56.3$ $56.2$ | $\begin{aligned} & .2963 \\ & .3056 \end{aligned}$ |
| 57 establishments. | $\begin{aligned} & 1911 \\ & 1912 \end{aligned}$ | $\begin{aligned} & 157 \\ & 149 \end{aligned}$ | $\begin{array}{r} 56.3 \\ 55.5 \end{array}$ | $\begin{aligned} & .2889 \\ & .2956 \end{aligned}$ |
| Cutters, outsole, male: $\quad$ (1907 |  |  |  |  |
| 10 establishments. ................................ | 1908 | 47 | 54.5 | . 3075 |
|  | 1909 1910 | 49 54 | 54.5 54.4 | . 3068 |
| 31 establishments. | 1910 | 143 | 56.6 |  |
|  | 1911 | 129 | 56.5 | . 2770 |
| 36 establishments. | 1911 | 146 161 | 56.6 56.4 | . 28881 |

AVERAGE NOMINAL FULLTIME HOURS OF WORK PER WEEK AND AVERAGE RATE OF WAGES PER HOUR IN EACH OF THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANUFACTURING, 1907 TO 1912-Continued.

| Occupation, sex, and number of establishments. | Year. | Number of employees. | Average nominal full-time hours per week. | Average rate of wages per hour. |
| :---: | :---: | :---: | :---: | :---: |
| Fitting or stitching department. |  |  |  |  |
|  |  |  |  |  |
|  | 1907 1908 | 81 78 | 56.6 56.5 | $\$ 0.1708$ .1858 |
| 16 establishments.. | 1909 | 91 | 56.3 | . 1770 |
|  | 1910 | 95 | 56.2 | . 1793 |
| 49 establishments. | 1910 | 307 | 56.6 | . 1765 |
| 49 establishments. | 1911 | 299 | 56.6 | . 1802 |
| 67 establishments. | ${ }_{1912}$ | 392 378 | 56.5 | . 1885 |
| Button fasteners, female: |  |  |  |  |
| 26 establishments. | 1911 | 55 | 56.4 | . 1572 |
| Buttonhole makers, female: |  |  |  |  |
| 33 establishments...... | 1911 | 108 | 56.3 | . 1757 |
| Closers-on, female: |  |  |  |  |
|  |  |  |  |  |
|  | 1908 | 100 | 55.1 | . 1901 |
|  | 1909 | 101 | 55.1 | . 2072 |
|  | 1910 | 95 | 55.0 | . 1979 |
| 49 establishments. | 1910 | 262 | 57.1 | . 1784 |
|  | 1911 | 277 | 57.1 | . 1776 |
| 65 establishments. | 1911 | 350 | 56.9 | . 1796 |
|  | 1912 | 331 | 54.9 | . 1865 |
|  |  |  |  |  |
| 19 establishments. | 1908 | 112 | 56.1 | . 1654 |
|  | 1909 1910 | 122 | 56.0 55.9 | . 17334 |
| 53 establishments. | 1910 | 585 | 56.5 | . 1639 |
|  | 1911 | 576 | 56.5 | . 1619 |
| 72 establishments.. | 1911 | 721 | 56.5 | ${ }^{1656}$ |
| Tip stitchers, female: |  |  |  |  |
| 36 establishments. | 1911 | 134 | 55.8 | 2049 |
|  | 1912 | 137 | 55.2 | . 2157 |
|  | 1907 | 151 | 56.3 | 1849 |
| 17 establishments. | 1908 | 144 | 56.3 | . 1898 |
|  | 1909 | 156 | 56.3 | . 1957 |
|  | 1910 | 164 | 56.0 | . 2002 |
| 53 establishments. | 1910 | 721 | 56.9 | . 1884 |
|  | 1911 | 742 | 56.8 | . 1915 |
| 73 establishments | 1911 | 911 | 56.7 | . 1941 |
|  | 1912 | 950 | 54.9 | . 1978 |
|  |  |  |  |  |
| 13 establishments. | 1908 | 99 | 55.2 | . 2869 |
|  | 1909 | 150 | 54.6 | . 2867 |
|  | 1910 | 134 | 54.5 | . 2941 |
| 33 establishments.................................. | 1910 | 263 | 55.5 | . 2927 |
|  | 1911 | 249 | 55.7 | . 3034 |
| 51 establishments. | 1911 | 343 | 55.5 | . 3147 |
|  | 1912 | 435 | 54.9 | . 3100 |
| Vampers, female: | 1907 |  | 55.7 | . 2463 |
| 22 establishments. | 1908 | 321 | 55.9 | . 2424 |
|  | 1909 | 391 | 55.5 | . 2526 |
|  | 1910 | 366 | 55.5 | . 2570 |
| 53 establishments | 1910 | 863 | 56.9 56.7 | . 23788 |
| 71 establishments | 1911 | 1,124 | 56.5 | . 2384 |
|  | 1912 | 1,019 | 55.1 | . 2334 |

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AVERAGE NOMINAL FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE RATE OF WAGES PER HOUR IN EACH OF THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANUFACTURING, 1907 TO 1912-Continued.

| Occupation, sex, and number of establishments. | Year. | Number of employees. | Average nominal full-time hours per week. | Average rate of wages per hour. |
| :---: | :---: | :---: | :---: | :---: |
| Lasting department. |  |  |  |  |
| Assemblers, for pulling-over machine, male: 17 establishments. | 1911 | 218 | $\begin{aligned} & 55.4 \\ & 54.8 \end{aligned}$ | $\begin{array}{r} \$ 0.2739 \\ .2645 \end{array}$ |
|  |  |  |  |  |
| 15 establishments | 1908 | 300 | 54 | ${ }_{.} .3336$ |
|  | 1909 | 307 | 54.8 5.8 | . 3424 |
|  | 1910 | 300 | 55.0 | . 3214 |
| 35 establishments. | ${ }_{1911}^{1910}$ | 513 568 | 56.4 56.1 | .3108 .3229 |
|  |  | 568 | 56.1 | . 3229 |
| 54 establishments. | 1911 | $\begin{array}{r} 793 \\ 1,004 \end{array}$ | 56.1 55.5 | . 3210 |
| Hand-method lasting machine operators, male: |  |  | 57.1 |  |
| 6 establishments. | 1908 | 89 | 56.6 | . 3070 |
|  | 1909 | 75 | 56.7 | . 3088 |
|  | 1910 | 80 | 56.1 |  |
| 33 establishments. | 1910 | 325 | 57.4 | . 3062 |
|  | 1911 | 352 | 57.3 | . 3094 |
| 39 establishments. | 1911 | 477 | 57.0 | . 3164 |
| Pullers-over, hand, male: |  |  |  |  |
|  | 1907 | 345 | 56.6 | . 2558 |
| 13 establishments. | 1908 | 330 | 56.6 | . 2490 |
|  | 1909 1910 | 366 384 | 56.2 55.9 | . 28763 |
| 35 establishments. | 1910 | 784 | 56.4 56.2 | . 2913 |
| 45 establishments. | 1911 | 897 | 56.3 | . 3121 |
| Pullers-over, machine, male:31 establishments . . . . |  | 899 | 55.4 | . 3190 |
|  | 1910 | 251 | 57.4 | . 3204 |
|  | 1911 | 266 | 56.5 | . 3188 |
| 43 establishments. | 1911 | 328 305 | 55.1 | .$_{3124}$ |
| Bottoming department. |  |  |  |  |
|  |  |  |  |  |
| 36 establishments. | 1911 | 174 170 | 55.8 55.8 | . 29940 |
| Edge setters, male: | 1907 | 134 | 56.0 | . 3999 |
| 18 establishments | 1908 | 142 | 56.2 | . 3509 |
|  | 1909 | 150 | 56.1 | . 3806 |
|  | 1910 | 163 | 55.9 | . 3852 |
| 54 establishments . | 1910 | 560 | 56.3 | . 3733 |
|  | 1911 | 573 | 56.3 | . 3800 |
| 68 establishments. | 1911 | 722 | 56.3 | . 3800 |
|  | 1912 | 698 | 55.8 | 3892 |
| Edge trimmers, male: | 1907 | 283 | 55.3 | . 4043 |
| 23 establishments. | 1908 | 302 | 55.1 | . 3863 |
|  | 1909 | 287 | 55.2 | . 3975 |
|  | 1910 | 305 | 55.0 | . 4010 |
| 55 establishments. | 1910 | 573 | 56.4 | . 3818 |
|  | 1911 | 615 | 56.2 | . 3899 |
| 71 establishments. | $\begin{aligned} & 1911 \\ & 1912 \end{aligned}$ | 765 751 | $56.1$ | .3890 .3855 |

AVERAGE NOMINAL FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE RATE OF WAGES PER HOUR IN EACH OF THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANUFACTURING, 1907 TO 1912-Continued.

| Occupation, sex, and number of establishments. | Year. | Number of employees. | Average nominal full-time hours per week. | Average rate of wages per hour. |
| :---: | :---: | :---: | :---: | :---: |
| Bottoming department-Concluded. |  |  |  |  |
|  |  |  |  |  |
| 21 establishments. . | 1907 | 215 | 55.3 $\mathbf{5 5 . 1}$ $\mathbf{5}$ | $\$ 0.4034$ $\mathbf{.} 3759$ |
|  | 1909 | 221 | 55.3 | . 3944 |
|  | 1910 | 224 | 55.2 | . 3875 |
| 45 establishments. | 1910 | 366 388 | 56.3 56.0 | .3739 .3879 |
| 61 establishments. | 1911 | 529 562 | 55.9 65.9 | . 38888 |
|  |  |  |  |  |
|  | 1908 | 70 | 56.0 | .4087 |
| 14 establishments. | 1909 | 74 | 55.7 | . 4435 |
|  | 1910 | 81 | 55.6 | . 4222 |
| 45 establishments. | 1910 | 275 | 56.2 | . 4373 |
|  | 1911 | 289 | 56.0 | . 4637 |
| 60 establishments. | 1911 | 392 | 56.0 | . 4520 |
|  |  |  |  |  |
| 35 establishments. | 1911 | 76 | 56.1 | . 2906 |
|  |  |  |  |  |
| 33 establishments. | 1911 | 106 | 55.6 | . 3062 |
| Heel scourers, male: ${ }_{\text {l }}$ |  |  |  |  |
| 35 establishments. | 1911 | 125 | 54.8 | . 2908 |
|  |  |  |  |  |
| 28 establishments. | 1911 | 43 | 55.8 | . 2987 |
|  |  |  |  |  |
| 34 establishments. | 1911 | 77 | 55.9 | . 2848 |
|  |  |  |  |  |
| 23 establishments. | 1907 | 99 | 55.1 | . 4382 |
|  | 1908 1909 | 84 | 55. ${ }^{55}$ | . 43887 |
|  | 1909 1910 | 82 91 | 55.3 55.2 | .4465 .4430 |
| 55 establishments. | 1910 | 189 | 56.6 | . 4096 |
|  | 1911 | 193 | 56.5 | . 4152 |
| 71 establishments. | 1911 | 246 | 56.5 | . 4154 |
| Heelers, male: |  |  |  |  |
| 31 establishments. | 1911 | 115 | 55.8 | . 4034 |
|  |  |  |  |  |
| 36 establishments. | 1911 | 102 | 55.8 | . 2968 |
|  |  |  |  |  |
| 5 establishments. | 1907 |  | 55.2 | . 2880 |
|  | 1908 | 25 | 55.3 | . 3113 |
|  | 1909 1910 | ${ }_{26}^{28}$ | 55.7 | . 2737 |
| 28 establishments.................................... |  |  |  |  |
|  | 1910 | 95 | 57.1 | . 2897 |
|  | 1911 | 107 | 56.7 | . 2900 |
| 30 establishments. | 1911 | 129 | 56.5 | . 2956 |
| Rough rounders, male: ${ }_{\text {c }}$ |  |  |  |  |
| 15 establishments. | 1907 | 48 | 56.0 | . 3874 |
|  | 1908 | 49 | 56.0 | . 3683 |
|  | 1909 | 54 | 55.8 | . 4342 |
|  | 1910 | 56 | 55.5 | . 4115 |
| 44 establishments. | $\begin{aligned} & 1910 \\ & 1911 \end{aligned}$ | 165 | $\begin{aligned} & 56.7 \\ & 56.5 \end{aligned}$ | - 4050 |
| 60 establishments. | 1911 | 221 | 56.3 | . 4364 |
|  | 1912 | 248 | 55.9 | 688 |

aVERAGE NOMINAL FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE RATE OF WAGES PER HOUR IN EACH OF THE PRINCIPAL OCCUPATIONS IN BOOT AND SHOE MANUFACTURING, 1907 TO 1912-Concluded.

| Occupation, sex, and number of establishments. | Year. | Number of employees. | Average nominal full-time hours per week. | Average rate of wages per hour. |
| :---: | :---: | :---: | :---: | :---: |
| Treers or ironers, hand, male: |  |  |  |  |
|  |  |  |  |  |
| 17 establishments. | 1907 1908 | 381 364 | 54.7 54.5 | $\$ 0.3047$ .2941 |
|  | 1909 | 377 | 54.6 | . 2925 |
|  | 1910 | 444 | 54.5 | . 2876 |
| 44 establishments. | 1910 | 832 | 55.9 | . 2594 |
| 44 establishments. | 1911 | 786 | 56.1 | . 2602 |
| 63 establishments. | 1911 | 1,006 | 56.0 | . 2668 |
| Treers or ironers, hand, female: |  |  |  |  |
| 8 establishments........... | 1910 | 74 | 57.8 | . 1432 |
|  | 1911 | 70 | 57.7 | . 1439 |
| 11 establishments. | ${ }_{1912}^{1911}$ | 85 105 | 58.1 <br> 54.3 | .1446 .1539 |

## EXPLANATION OF SCOPE AND METHOD.

This report on boot and shoe manufacturing includes establishments whose principal or only products are shoes made by the welt, McKay, or turn process. Men's, women's, and children's shoes are included in the product of these factories. No data are included from establishments whose main or sole products are nailed, screwed, or pegged shoes, or specialties such as slippers, leggings, felt boots, etc., nor from establishments doing only fitting or making sole stock.

The number of establishments for which data concerning rates of wages per hour and nominal full-time hours of work per week were secured has varied considerably during the 23 -year period, as follows:

| 0 | 46 identical establishments. |
| :---: | :---: |
| 1903 and 1904. | 50 identical establishments. |
| 1904 and 1905. | 52 identical establishments. |
| 1905 and 1906. | 52 identical establishments. |
| 1906 and 1907. | 54 identical establishments. |
| 1907 to 1910. | 26 identical establishments. |
| 1910 and 1911. | 60 identical establishments. |
| 1911 and 1912 | 81 identical establishments. |

As before stated, the data for 1907 to 1911 were secured in 1911, and the number of establishments included for the full period 1907 to 1910 was limited owing to the difficulty in finding establishments which had preserved complete records for those years.

In order that the data from year to year may be entirely comparable it is necessary that information be secured from identical establishments; therefore when in 1912 the number of establishments was increased to 81 the Bureau secured data for 1911 also from all establishments added, thus providing for an exact comparison of the two yoars 1911 and 1912.

In selecting the establishments from which to secure data the Bureau undertook to represent all States in which boot and shoe manufacturing is of material importance, the measure of importance being the number of employees as reported by the United States Census of Manufactures, 1905. In selecting establishments in 1912 every State having 1,725 or more employees in the industry, according to the United States Census of Manufactures in 1905, is represented. The table which follows shows by States the number of employees in the boot and shoe manufacturing industry, as given in the reports of the United States Census Office for 1910 and 1905; the total number on the pay roll in the establishments from which the Bureau secured data in 1912, and the number in the selected occupations and for whom data were secured in 1912. Data were secured from the pay roll ending nearest February 15, except for a few establishments where conditions in February were particularly abnormal.

The census figures for 1910 were not available at the time the work for 1911 and 1912 was planned, and therefore the establishments selected, as already stated, were distributed by States according to the census of 1905. The relative importance, however, of the various States, as measured by the number of employees in this industry, did not change materially-except in the case of Missouri, Wisconsin, and Illinois-during the five years from 1905 to 1910.

TOTAL NUMBER OF EMPLOYEES IN BOOT AND SHOE MANUFACTURING AND NUMBER OF EMPLOYEES IN ESTABLISHMENTS FROM WHICH DATA WERE SECURED IN 1912.

| State. | Number of employees reported by United States Census Office. |  | Establishments furnishing information to the Bureau of Labor Statistics in 1912. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1910 | 1905 | Number of establish. ments. | Number of employees- |  |
|  |  |  |  | On pay roll. | For whom data were secured. |
| Massachusetts. | 74,710 | 62,633 | 24 | 21,214 | 6,628 |
| New York. | 20,545 | 16,556 | 11 | 7,170 | 1,854 |
| Ohio. | 15,693 | 13,890 | 5 | 4,459 | 1,162 |
| Missouri. | 16,336 | 10,428 | 11 | 5,480 | 1,132 |
| New Hampshire. | 13,042 | 10,415 | 7 | 5,373 | 1,474 |
| Pennsylvania.. | 10,576 | 8,878 | 7 | 3,348 | 845 |
| Maine.... | 6,508 | 5,775 | 4 | 2,523 | 649 |
| New Jersey. | 4,084 | 4,192 | 4 | 1,327 | 429 |
| Illinois. | 5,588 | 3,947 | 4 | 2,630 | 668 |
| Wisconsin | 5,081 | 3,226 | 2 | 1,224 | 274 |
| Virginia... | 2,677 | 1,738 | 2 | 498 | 203 |
| Other States ${ }^{1}$. | 10,276 | 8,246 |  |  |  |
| Total. | 185, 116 | 149,924 | 81 | 55,246 | 15,318 |

${ }^{1}$ Includes States having less than 2,675 employees in 1910 and less than 1,725 in 1905.
According to both the census of 1905 and the census of 1910 more than 94 per cent of the total number of employees in the industry
are found in the States in which the establishments furnishing information to the Bureau of Labor Statistics are located.

The number of employees on the pay rolls of the establishments from which the Bureau secured 1912 data was equal to 29.8 per cent of the total in the industry in 1910, as reported by the United States Census Office, and the number of employees for whom the Bureau secured detailed information in 1912 was equal to 8.3 per cent of the total in the industry in 1910.
All information included in this report was secured from pay rolls of the various establishments by agents of the Bureau of Labor Statistics.

## DESCRIPTION OF THE PRINCIPAL PRODUCTIVE OCCUPATIONS.

The kinds of boots and shoes manufactured by the establishments furnishing data for this report are given on page 20.

So far as the staple products covered by this report are concerned, the processes of manufacture are practically standardized, and the operations are highly specialized. In a modern shoe factory there are more than 100 separate operations, each generally performed by a different person.

Of the 100 or more operations of a modern factory, more than 50 may be performed by machines. The number of operations, both hand and machine, varies with the process and product and the equipment of the factory.

A shoe factory usually has the following departments: Cutting, sole leather, fitting or stitching, lasting, bottoming, finishing, and packing.

In the cutting department are cut the several parts of the uppers, the lining, and the trimmings. These parts pass to the fitting or stitching department, where they are sewed together, forming the whole upper.

In the sole-leather department the soles are cut, and heels, counters, and boxes made. Frequently these parts are bought ready-made from factories making a specialty of such manufacture.

In the lasting department the upper, insole, counter, and box are assembled and fitted together on the shoe last. From this department the lasted shoe is sent to the bottoming department, where the welt (in welt shoes) is sewed on, the outer sole sewed on, the heel attached, and the heel and the edge of the sole trimmed to shape and finished.

In the finishing department the shoe is smoothed with a hot iron, scratches rubbed down, stains removed, and the shoe given a final cleaning and inspection. From this department the shoes go to the packing department, where they are boxed and cased for shipment.

Figures as to wages and hours of labor are presented in this report for 35 of the principal occupations of the industry. Hand and machine work on the same process are presented as separate occupations, except in lining cutting, in which occupation they are combined, The sex of the employees is shown for each occupation. Some occupations include both males and females in such numbers that data are presented for both sexes. Other occupations are filled largely or entirely by one sex; the few employees of the other sex in such occupations are not reported. Of the 35 occupations tabulated, data are shown for males only in 25 occupations, for females only in 7 occupations, and for both males and females in 3 occupations.

The occupations represented by females only are all machinesewing operations. Of all the employees reported for 1912, 27 per cent were females.

The occupations for which data are shown are here listed in alphabetical rather than process order, under each department. The departments, however, are listed in process order.

Cutting department:
Cutters, lining, cloth, male.
Cutters, vamp and whole shoe, hand, male.
Cutters, vamp and whole shoe, machine, male.
Skivers, upper, machine, male.
Skivers, upper, machine, female.
Sole-leather department:
Channelers, insole and outsole, male. Cutters, outsole, male.
Fitting or stitching department:
Backstay stitchers, female.
Button fasteners, female.
Buttonhole makers, female.
Closers-on, female.
Lining makers, female.
Tip stitchers, female.
Top stitchers or undertrimmers, female.
Vampers, male.
Vampers, female.
Lasting department:
Assemblers, for pulling-over machine, male.

Lasting department--Concluded.
Bed-machine operators, male.
Hand-method lasting machine operators, male.
Pullers-over, hand, male. Pullers-over, machine, male.
Bottoming department: Buffers, male. Edge setters, male. Edge trimmers, male. Goodyear stitchers, male. Goodyear welters, male. Heel breasters, male. Heel burnishers, male. Heelers, male. Heel scourers, male. Heel-seat nailers, male. Heel sluggers, male. Heel trimmers or shavers, male. Levelers, male. McKay sewers, male. Rough rounders, male.
Finishing department:
Treers or ironers, hand, male. Treers or ironers, hand, female.

## CUTTING DEPARTMENT.

All operations of the cutting department here shown are usually performed by men, except skiving, on which operation women also are employed.

Included in this occupation are the men who cut the cloth lining of the upper of the shoe. The work may be performed by hand or machine. The hand cutter receives the cloth folded 8 to 12 thick. He lays his patterns on the cloth and draws a knife along the edge of the pattern, cutting through the several thicknesses of cloth. The machine operator uses a die which, under the pressure of a power machine cuts 24 to 32 thicknesses at one time.

## CUTTERS, VAMP aND WHOLE SHOE, HAND.

This occupation includes the men who cut by hand the entire top or outside of the shoe. It covers the men who cut the vamp and possibly some or all of the other part of the top also, but does not include cutters of minor parts only. The vamp is the most important part of the upper and requires the greatest skill in cutting. It consists of the part or parts of the upper attached to the sole. The upper, according to the style of the shoe, may have other parts also, as quarters, tongue, tip, backstay, and foxing. The operator has a bench upon which he spreads the skin; he lays the pattern in the desired place and draws a knife along the edge of the pattern, cutting the part to the desired shape. For each different part of the upper there is a separate pattern. Incidental to the outside cutting care must be exercised in selecting like qualities and weights of stock for the same parts in a pair of shoes.

## CUTTERS, VAMP AND WHOLE SHOE, MACHINE.

These operators cut the same part or parts as the hand cutters described above. Instead of patterns and a knife they use dies operated by a power press. Different dies are required for each part of each style and size of shoe. The cutting board is similar to that used by the hand worker, with a beam over it which can be swung either to the left or right and any position over the board. The cutter places the die in the desired position on the leather, grasps the handle of the beam of the clicking machine and swings it over the die, with a downward pressure. A clutch is placed in operation, which brings the beam downward, pressing the die through the leather. After the cut the beam automatically returns to its full height and remains there until the handle is pressed again.

SKIVERS, UPPER, MACHINE.
Skiving consists of cutting away, on the flesh side, the edge of a piece of leather, so that the edge may be turned and pasted back, thus giving a finished rather than a raw edge of the same thickness as
the other parts of the leather. The machine used has a sharp-edged revolving disk so shaped as to cut the desired bevel or shoulder on the leather fed to it.

## SOLE-LEATHER DEPARTMENT.

The two operations of this department for which data are shown are performed by men.

## CHANNELERS, INSOLE AND OUTSOLE.

The operator has a machine that cuts a slit near the edge of a welt insole or a McKay outsole. The slit extends only part way through the sole and is cut at an acute angle. The lip or lid of the channel is turned back by a channel turner. The channel in the outsole of the welt shoe is cut by the rough rounder. The channel in the welt insole avoids a seam inside the shoe and permits the insole, the welt, and the upper to be stitched together while on the last. In the outsole the channel permits the seam to be countersunk or embedded in the sole. After the outsole is stitched on, the lip of the channel is cemented down on the thread, protecting it from wear.

## CUTTERS, OUTSOLE.

The operator cuts the outsole from a side of leather by means of a die and a heavy descending power beam. The leather is laid upon the cutting table, the cutter places the die, and with his foot presses a lever, releasing the beam, which comes down upon the die with sufficient force to press it through the leather. The operator sets the die to have as little waste leather as possible, and to have the same quality of leather in a sole.

## FITTING OR STITCHING DEPARTMENT.

Women are employed so generally in this part of the manufacture of a shoe that data are shown for females only in all occupations reported except vamping, in which occupation wages are shown for both sexes. All of these are machine operations.

## BACKSTAY STITCHERS.

The back of the shoe is usually strengthened by an additional strip running all or part of the way from the top to the sole of the shoe. This stay is sewed on over the back seam. This work is also called back stripping.

## BUTTON FASTENERS.

This is an automatic machine operation. The buttons are fastened on the shoe by either thread or wire. The upper comes to the operator with the position marked for each button. The operator has
only to put the top of the shoe in position and start and stop her machine.

## BUTTONHOLE MAKERS.

The upper is received by the operator with the position of each buttonhole marked. The machine cuts and works the buttonhole automatically. The operator has only to hold the upper in position and control the machine.

## CLOSERS-ON.

This operation consists of stitching the lining to the top of the upper, both of these parts having been made previously. The work is also called inseaming. This operation is not performed on all shoes. In some shops it is omitted entirely; in others the lining is pasted on, which holds it to the top until the upper is top-stitched.

## LINING MAKERS.

These employees are sewing-machine operators who sew together the several parts of the shoe lining. In some shops the work is subdivided, two or more persons doing a part of the work on each lining. This operation of sewing the cloth lining requires less skill than the leather-sewing operations, to which lining makers are usually advanced as they acquire skill.

## TIP STITCHERS.

The tip is a separate piece of leather generally put over the toe of the shoe. It is stitched to the vamp by machine.

## TOP STITCHERS OR UNDERTRIMMERS.

When the lining has been closed on to the top of the upper, it is folded inside of the upper covering the closing-on seam and passed to the top stitcher who stitches, by machine, the edge of the folded-in seam. This operation is also called undertrimming. In some shops this top stitching is done without a previous closing-on, the lining being held in position or previously pasted.

## VAMPERS.

The vamp is the part of the upper to which the sole is attached. Vamping is the process of sewing together the lower part of the shoe, or vamp, and the upper part, known as top or quarter. Pumps or slippers having no tops or quarters do not require vamping. Vamping is the most important and best-paid operation in the fitting room. The operator uses either a single or double needle power vamp sewing machine. Either males or females may operate the machine; women's shoes being light can be vamped by females, but men's shoes
being heavier require male vampers usually; however, in many plants making men's shoes only, there are women vampers.

## LASTING DEPARTMENT.

Men are employed almost exclusively in the operations of the lasting room.

## ASSEMBLERS, FOR PULLING-OVER MACHINE.

The assembler receives the last with the insole tacked on it. He wets the leather, shellacs the toe box or the tip or both, places the toe box and counter between the lining and the upper, and then puts the last inside the upper. Having centered the upper on the last, he places the last on the spindle of the assembling machine. By pressing a lever the machine automatically drives small tacks through the upper and insole into the bottom of the last at the toe, the heel, and either side, the tacks holding the upper in place temporarily. The shoe goes from the assembler to the machine puller-over. When the pulling-over is a hand operation, the assembling is done by the hand puller-over.

## BED-MACHINE OPERATORS.

Lasting is the next operation after the shoe has been pulled over the last. The bed-machine operator places the shoe on the machine and by levers moves a series of wipers (friction pullers) which draw the upper over the edge of the insole at the toe and heel. Some factories designate this as toe and heel lasting. The shoe is placed with the sole up and the operator determines whether the shoe is properly lasted by placing his hand under the toe or heel. The wipers are kept in motion until the operator is satisfied that the upper has been wiped into the desired position. Under the welt system, the operator drives a tack through the upper and insole and partly into the last at one side and passes a fine wire from it around the drawn-in upper at the toe to the opposite side of the last and drives a tack, around which he winds the wire. The wire holds the toe of the upper in position as drawn in over the last. Under the McKay system, instead of the wire used on the toe of welt shoes, tacks are used. The upper at the heel is fastened by tacks driven in by hand. In case the side is lasted by the bed-machine laster the side or instep is lasted by hand with pincers. The operator draws the upper tightly over the last so that there are no wrinkles and tacks it down by hand. Lasting is one of the most important operations in the making of a shoe.

## HAND-METHOD LASTING-MAOHINE OPERATORS.

In this method of lasting, which is done on a machine known either as "consolidated" or "niggerhead," the operator holds the edge of the shoe so that the pincers of the machine grasp the upper and draw
it evenly and closely about the last. Immediately following the pincers as fast as the upper is drawn into position, there is a device on the machine that drives tacks automatically into the last to hold the upper in its proper place. In case any part of the shoe has not been properly lasted, the operator pulls the tacks and does the work over. Under the welt system this machine is often used to last only the side or instep while the bed machine lasts the toe and heel, thus cutting out the operation of hand lasting the side or instep, which is necessary in plants using only the bed machines.

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PULLERS-OVER, HAND.
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The hand puller-over is his own assembler, which occupation is described above. With the parts assembled, he takes hand pincers and draws the upper over the last and insole, taking care that the upper keeps its proper position, and drives a tack at the toe and two on either side to hold the upper in position for the laster.

## PULLERS-OVER, MACHINE.

Where shoes are pulled over by machine, they are first assembled and put over the last by the assembler. The machine-puller places the shoe in the machine and the pincers of the machine grasp the leather at different points on each side of the shoe. The operator stands so that he can see when the upper is properly centered. He presses a foot lever closing the pincers, which draw the leather securely against the last. The machine stops at this point and the operator can start or stop the machine at will. The operator now examines the shoe to see whether all the parts have been evenly pulled over the last. Where a part has not been properly pulled over it can be adjusted to the desired point by levers. When satisfied that the shoe is properly adjusted, the operator presses a foot lever, the pincers move toward each other, drawing the leather around the last, and at the same time the machine automatically drives two tacks on each side and one at the top through the upper and insole into the last to hold the upper in position.

## BOTTOMING DEPARTMENT.

All operations in the bottoming department are usually performed by men.

## BUFFERS.

After the shoe has been bottomed, the buffer removes stains from the sole and gives it a smooth, finished appearance by holding it against a revolving roll or wheel covered with sandpaper or emery paper.

## EDGE SETTERS.

The adge setter holds the edge of the sole against a machine having hot irons shaped to fit the edge of the sole, which irons vibrate rapidly and give a lasting polish to the edge.

## EDGE TRIMMERS.

The operator holds the edge of the sole against a machine having a series of revolving knives that trim the edge smooth and to the desired shape. This operation comes after the bottom has been sewed on and precedes edge setting.

## GOODYEAR STITCHERS.

The operator uses a Goodyear outsole lock-stitch machine to stitch the outsole to the welt. The seam is run in the channel in the outsole through both outsole and welt on the outside of the shoe. The stitches show on the upper surface of the welt and are covered on the under surface of the sole by cementing down the lip of the channel.

## GOODYEAR WELTERS.

The welt is a narrow strip of leather to which the outsole is to be stitched. It extends around the edge of the shoe as far back as the breast of the heel. By one operation of the machine both the upper and the welt are sewed to the insole, the thread passing through the lip of the channel in the insoles. The outsole is stitched to the welt in a later operation.

## HEEL BREASTERS.

The heel breaster operates a machine having a knife which cuts to shape and trims evenly the breast or front surface of the heel, cutting down to the outsole, but not cutting into it.

## HEEL BURNISHERS.

The final operation on the heel is the burnishing. The operator holds the shoe with his hand in such position that the heel comes in contact with a wheel on the burnishing machine, which gives it a hard, smooth surface. Hot wax is carried to the heel by a small disk and applied by a series of rubbing blows, which beat the wax thoroughly into the heel. A revolving brush on the same machine brings the heel to a perfectly smooth surface.

## HEELERS.

The heels come to the heeler ready-made, except for the top lift or last layer of leather. A helper sticks nails in a steel plate. The heeler places the shoe on a jack or metal last, puts the heel in position,
swings the nail plate into position over the heel when the nails are dropped into another plate over the heel. By operating a foot lever another part of the machine drives the nails down through the heel, the insole, and the upper folded between the insole and the heel, and clinches the nails back into the leather of the insole. The nails protrude slightly above the unfinished heel. The top lift, coated with cement, is then pressed down by the machine on the protruding nails.

HEEL SCOURERS.
This operator holds the shoe by hand so the heel, trimmed but yet not smooth, comes in contact with rolls covered with sandpaper, which smooth the heel. The next operation on the heel is burnishing.

## HEEL-SEAT NAILERS.

The heel seat is the heel end of the sole. The insole, the outsole, and the part of the upper brought in between them are nailed together by machine. Small brass nails are driven automatically through the parts and clinched on the insole side. The shoe is placed on a jack and the work of the operator is to guide it during the nailing.

## HEEL SLUGGERS.

The slugger operates a machine which drives small pieces of brass or other metal, called "slugs," into the toplift of the heel to protect it from wear. The operator of this machine adjusts the plate so as to place accurately the desired number of slugs, and the machine automatically cuts off and drives the slugs as they áre drawn from a coil of wire.

## HEEL TRIMMERS OR SHAVERS.

The heel, when the shoe is received from the heeler, is rough and larger than the required size. This operator holds the shoe by hand in such position that the heel comes in contact with a series of revolving knives on his machine which cut away the heel to conform to the desired contour, as indicated by the top lift, which top lift is of exact size when put on by the heeler. The machine has two sets of knives. With the first set the trimmer shaves that part of the heel from the top lift to the sole, then with the other set he trims the edge of the sole, taking care not to cut the upper.

## LEVELERS.

The operation of leveling to correct any unevenness in the bottom of the shoe is done with an automatic sole-leveling machine. The operator places the shoe on a jack or metal last, which he attaches to the machine, where it is securely held by the spindle and a toe rest. He presses a foot lever and the shoe passes automatically beneath a
roll under heavy pressure. This roll moves with a vibrating motion over the middle of the sole of the shoe from the toe down to and into the shank and passes back again to the toe. The roll then cants to the right and repeats the operation on that side of the sole, returning to the toe as before. It then cants to the left, repeating the operation on that side, after which the shoe automatically drops forward and is relieved from the pressure. While one shoe is under pressure the operator is preparing another shoe for the operation.

## MCKAY SEWERS.

This operator uses a McKay sewing machine to sew together the outsole, the upper, and the insole-the three parts being sewed together in the one operation, except the heel seat, which is nailed. No welt is used in the McKay process, the seam being embedded in the channel of the outsole; the opposite side of the seam is on the inside of the shoe instead of on the top of the welt outside the shoe, as in the welt process of manufacture.

## ROUGH ROUNDERS.

This operation consists of trimming by machine the edge of the outsole and welt so that they will extend a uniform distance from the upper. It is the first operation on the edge of the sole in the Goodyear process. The machine also cuts a channel in the outsole, in which the thread is embedded, when the Goodyear stitching is done later.

## FINISHING DEPARTMENT.

## TREERS OR IRONERS, HAND.

The treer places the shoe on a form, the shape of a last, supported on a frame. By pressing a foot lever the form is expanded so that the shoe fits tight over it. The tools of the treer are a hot iron, brush, cloth, etc. The treer brushes the shoe, cleans spots and discolorations, remedies any slight cut or blemish, and rubs the upper with a hot iron to take out wrinkles and produce a smooth surface. As females are engaged in this occupation to a considerable extent, data are shown for both sexes.

## EXPLANATION OF TABLES.

This report includes one general table covering the 6 -year period, 1907 to 1912, and two general tables covering the 3-year period, 1910 to 1912, as follows:

Table I.-Average rates of wages per hour and average and classified nominal full-time hours of work per week, in the United States, by years, 1907 to 1912 .

Table II.-Average rates of wages per hour and average and classified nominal full-time hours of work per week, in each year, by States, 1910 to 1912.

Table III.-Average rates of wages per hour and average and classified nominal full-time hours of work per week, in each State, by years, 1910 to 1912.

Table I.-Average rates of wages per hour and average and classified nominal full-time hours of work per week in the United States, by years, 1907 to 1912 ( $p p .34$ to 43).-This table summarizes the data concerning rates of wages and nominal full-time hours of work secured from the whole number of establishments furnishing information. For each of the principal occupations enumerated on page 6 data are shown, as far as available, for each of the six years, 1907 to 1912.

The first section of the table shows for each occupation the number of establishments from which data were secured, number of employees, average rate of wages per hour, average nominal full-time hours per week, and number of employees under each classified number of nominal full-time working hours per week. The data as to time worked by individual employees paid on a piece basis were not sufficiently satisfactory in many establishments to warrant the presentation of classified rates of wages per hour. The second section of the table shows the per cent of employees under each classified number of nominal full-time working hours per week.

The data for years grouped together by brackets in the table are from identical establishments. As previously explained, exact comparison can be made from year to year only when the establishments compared are identical.
The relative nominal full-time hours per week and the relative rates of wages per hour for 1907 to 1912 , shown on pages 9 to 15 , are computed from the averages shown in this table. The method of computing the relatives can best be explained by using an illustration, thus: For outsole cutters the average nominal full-time hours per week in 10 establishments was 54.8 in 1907 and 54.5 in the same 10 establishments in 1908. The average in 1908 (54.5) was 99.45 per cent of the average (54.8) in 1907. Bulletin No. 77 (July, 1908) shows that, for nominal full-time hours per week for outsole cutters, the relative was 98.0 in 1907 (average for $1890-1899=100.0$ ). The average nominal full-time hours for 1908 were then reduced to a comparison with the base period (average for $1890-1899=100.0$ ) by computing 99.45 per cent of 98.0 , which is 97.5 . The same method was followed in computing the relative rate of wages per hour; the average in 1908 ( $\$ 0.3075$ ) was 97.81 per cent of the average in 1907 ( $\$ 0.3144$ ); the relative (average for $1890-1899=100.0$ ) for 1907 as shown in Bulletin No. 77 was 114.3 ; and 97.81 per cent of 114.3 is 111.8 , or the relative rate of wages per hour in 1908 if the average for 1890 to 1899 is the
base or 100.0. In computing for this occupation the relatives for 1911, comparison was made of the data for 31 identical establishments and in computing the relatives for 1912 comparison was made of the data from 36 identical establishments.

Table II.-Average rates of wages per hour and average and classified nominal full-time hours of work per week, in each year, by. States, 1910 to 1912 ( $p p .44$ to 58).-This table affords an easy comparison of rates of wages per hour and nominal full-time hours of work per week in the several States. It shows for each of the principal occupations the average rate of wages per hour and the classified nominal full-time hours of work per week. Under each year, 1910 to 1912, or for such of those years as data are available, the data are shown for each of the States represented by any considerable number of employees.

Table III.-Average rates of wages per hour and average and classified nominal full-time hours of work per week in each State, by years, 1910 to 1912 ( $p p .59$ to 69). -This table affords an easy comparison of rates of wages per hour and nominal full-time hours of work per week in the several years, 1910 to 1912. It shows for each of the principal occupations the average rate of wages per hour and the classified nominal full-time hours of work per week. For each of the more important States in this industry the data are shown for each of the three years, 1910 to 1912 , or for such of these years as data are available.
$7446^{\circ}-$ Bull. $134-13-3$

Table I.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912.

## BOOT AND SHOE MANUFACTURING.

[The establishments set opposite each bracketed group of years are identical.]
NUMBER.

| Occupation, sex, and number of establishments. | Year. | Num ber of em-ployees. | $\begin{aligned} & \text { Aver- } \\ & \text { age } \\ & \text { rate of } \\ & \text { wayes } \\ & \text { por } \end{aligned}$ |  | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{gathered} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}$ | $\begin{gathered} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}$ | 54. | $\begin{gathered} \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}$ | $\begin{array}{\|c} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{array}$ | 60. |
| Cutting department. |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Cutters, vamp and whole shoe, hand, <br> male:1912 128 .2800 54.8 20 12 43 14 34 |  |  |  |  |  |  |  |  |  |  |
| 20 establishments | 1907 | 919 | . 3250 | 54.9 | 11 | 157 | 343 | 252 | 156 |  |
|  | 1908 | 907 | . 3323 | 54.8 | 6 | 175 | 331 | 283 | 112 |  |
|  | 1909 | 907 | . 3399 | 54.7 | 14 | 159 | 346 | 286 | 102 |  |
|  | 1910 | 852 | . 3448 | 54.7 | 13 | 176 | 278 | 291 | 94 |  |
| 48 establishmen | 1910 | 1,650 | .3188 | 56 | 13 | 176 | 405 | 395 | 319 | 342 |
|  | 1911 | 1,602 | . 3169 | 56.2 | 14 | 158 | 425 | 398 | 311 | 296 |
| 64 establishments | 1911 | 2,066 | . 3127 | 56.2 |  | 158 | 589 | 587 | 384 | 348 |
| Cutters, vamp and whole shoe, ma- <br> chine, male: 1912 1,906 .3222 55.0 217 162 720 272 323 212 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17 establishments. | 1910 | ${ }_{226}^{235}$ | ${ }^{3} 3013$ | 57.8 |  |  | 13 | 70 | ${ }_{102}^{98}$ | ${ }_{34}^{54}$ |
| 20 establishments | 1911 | 270 | . 3126 | 57.0 |  |  | 59 | 69 | 87 | 55 |
| 20 establishments | $\{1912$ | 300 | . 3186 | 55.5 | 29 | 24 | 113 |  | 85 | 49 |
| 12 establishment | $\{1910$ | 79 | . 28139 | 54.7 |  |  | 49 52 | 13 21 | 12 |  |
| 28 establishments. | 1911 | 136 | . 2921 | 54.8 |  |  | 92 | 24 | 20 |  |
| Skivers, upper, machine, female: | 1912 | 146 | . 2885 | 54.6 |  | 10 | 100 | 11 |  | 1 |
|  | 1908 | 70 | . 1918 | 56.5 |  |  | 7 | 27 | 36 | .... |
|  | $\{1909$ | 79 | . 1914 | 56.3 |  |  | 11 | 31 | 37 |  |
|  | 1910 | 85 | . 1954 | 56.0 |  |  | 8 | 35 | 42 | - |
| 49.establishments | $\{1910$ | 338 | . 1749 | 57.0 | 1 | 30 | 40 | 81 | 86 | 100 |
|  | \{1911 | 314 | . 1757 | 57.3 | 2 | 25 | 25 | 84 | 94 | 84 |
| 60 establishments. | 1911 | 374 | . 1758 | 57.0 |  | 25 | 33 | 113 | 108 | 95 |
|  | 1912 | 345 | . 1914 | 55.1 | 9 | 26 | 158 | 50 | 91 | 11 |
| Sole-leather department. |  |  |  |  |  |  |  |  |  |  |
| Cnannelers, insole and outsole, male: |  |  |  |  |  |  |  |  |  |  |
| 10 establishments. | 11907 | 23 | . 2829 | 55.1 | 4 |  | 8 | 2 | 9 | ... |
|  | 1908 | 23 | . 2962 | 55.1 | 4 |  | 8 | 2 | 9 | ... |
|  | 11909 | 23 | . 30504 | 54.7 54.7 | 4 |  | 10 | 2 | 7 |  |
| 44 establishments. | 1910 | 138 | . 2903 | 56.3 |  | 7 | 39 | 22 |  | 18 |
|  | 1911 | 140 | . 3056 | 56.2 | 4 | 7 | 37 | 31 | 48 | 13 |
|  | 1911 | 157 | . 2889 | 56.3 |  | 7 | 46 | 38 | 45 | 21 |
| cutters, outsole, male:10 establishments. | 1912 | 149 | . 2956 | 55.5 |  | 12 | 61 | 30 | 39 | 7 |
|  | 1907 | 50 | . 3144 | 54.8 |  |  | 38 | 5 |  |  |
|  | 1908 | 47 | . 3075 | 54.5 |  |  | 35 | 10 | 2 |  |
|  | 1909 | 49 | . 3065 | 54.5 |  |  | 37 | 10 | 2 | ...... |
|  | 1910 | 54 | . 3089 | 54.4 |  |  | 42 | 10 | 2 |  |
| 31 establishments. | [1910 | 143 | . 2735 | 56.6 |  |  | 48 | 29 | 46 | 20 |
|  | (1911 | 129 | . 2770 | 56.5 |  |  | 40 | 34 | 39 | 16 |
| 36 establishments. | 1911 | 146 | . 2784 | 56.6 |  |  | 43 | 43 | 39 | 21 |
|  | \|1912 | 161 | . 2861 | 56.4 | ...... | 2 | 56 | 34 | 48 | 21 |

Table I.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912-Continued.

BOOT AND SHOE MANUFACTURING-Continued.
NUMBER-Continued.


Table I.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK. IN THE UNITED STATES, BY YEARS, 1907 TO 1912—Continued.

BOOT AND SHOE MANUFACTURING-Continued.
NUMBER-Continued.


Table I.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912-Continued.

## BOOT AND SHOE MANUFACTURING-Continued.

NUMBER-Continued.


Table I.-AVERage rates of Wages per hour and average and CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912—Continued.

## BOOT AND SHOE MANUFACTURING—Continued.

NUMBER-Concluded.

| Occupation, sex, and number of establishments. | Year. | Number of em-ployees. | $\begin{aligned} & \text { Aver- } \\ & \text { age } \\ & \text { rate of } \\ & \text { wages } \\ & \text { por } \end{aligned}$ | $\begin{aligned} & \text { Aver- } \\ & \text { age } \end{aligned}$ | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\begin{gathered} \text { inal } \\ \text { full- } \\ \text { time } \\ \text { hours } \\ \text { per } \\ \text { week. } \end{gathered}$ | $\begin{gathered} 0 \mathrm{over} \\ 48 \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}$ | $\begin{array}{\|c\|} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{array}$ | 54. | $\begin{gathered} \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}$ | $\begin{gathered} 57 \\ \text { and } \\ \text { ander } \\ 60 . \end{gathered}$ | 60. |
| Bottoming department-Concluded. <br> Heel trimmers or shavers, male: |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 establishments. | 1908 | 84 | $\stackrel{.}{ } \times 1387$ | 55.2 |  | 15 | 22 | 29 |  |  |
|  | 1909 | 82 | . 4465 | 55.3 |  | 12 | 22 | 28 | 20 | ....... |
|  | 1910 | 91 | . 4430 | 55.2 |  | 17 | 21 | 31 | 22 |  |
| 55 establishments.............. | 1910 | 189 | . 4096 | 56.6 | 1 | 17 | 27 | 54 | 50 | 40 |
|  | 1911 | 193 | . 4152 | 56.5 | 1 | 16 | 29 | 59 | 52 | 36 |
| 71 establishments. | 1911 | 246 | . 4154 | 56.5 |  | 16 | 47 | 80 | 60 | 43 |
| Levelers, male: 36 establishme | 1912 | 239 | . 4148 | 56.0 |  | 18 | 70 | 56 | 63 | 32 |
|  | 1911 | 102 | . 2968 | 55.8 |  | 7 | 32 | 23 | 37 | 3 |
|  | 1912 | 102 | . 3090 | 55.7 |  | 7 | 37 | 22 | 30 | 6 |
| McKay sewers, male: | 1907 | 34 | . 2880 | 55.2 |  | 14 |  | 11 | 9 |  |
| 5 establishments. | 1903 | 25 | . 3113 | 55.3 |  | 9 |  | 9 | 7 | .. |
|  | 1909 | 28 | . 2737 | 55.7 |  | 9 |  | 8 | 11 |  |
|  | 1910 | 26 | . 2787 | 55.2 |  | 10 |  | 7 | 9 |  |
| 28 establishments | 1910 | 95 | . 2897 | 57.1 | 1 | 10 | 5 | 24 | 30 | 25 |
|  | 1911 | 107 | . 2900 | 56.7 | 1 | 13 | 7 | 29 | 43 | 14 |
| 30 establishments. | 1911 | 129 | . 2956 | 56.5 |  | 13 | 9 | 49 | 43 | 15 |
| Rough rounders, male: | 1912 | 128 | . 2854 | 56.3 |  | 3 | 24 | 40 | 50 | 11 |
|  | 1907 | 48 | . 3874 | 56.0 |  |  |  |  | 20 |  |
|  | 1908 | 49 | . 3683 | 56.0 |  |  | 13 | 16 | 20 | ...... |
|  | 1909 | 54 | . 4342 | 55.8 |  |  | 18 | 16 | 20 | ...... |
|  | 1910 | 56 | . 4115 | 55.5 |  |  | 19 | 16 | 21 |  |
| 44 establishments | 1910 | 165 | . 4056 | 56.7 | 1 |  | 41 | 40 | 44 | 39 |
|  | 1911 | 167 | . 4375 | 56.5 | 1 |  | 39 | 59 | 33 | 35 |
| 60 establishments. | 1911 | 221 | . 4364 | 56.3 |  |  |  |  | 43 | 43 |
|  | 1912 | 248 | . 4388 | 55.9 |  | 23 | 88 | 50 | 50 | 37 |
| Finishing department. |  |  |  |  |  |  |  |  |  |  |
| Treers or ironers, hand, male: |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | 153 |  |  | ...... |
| 17 establishme | 1908 | 364 377 | . 29425 | 54.5 54.6 |  | 107 | 132 | 102 | 23 35 |  |
|  | 1910 | 444 | . 2876 | 54.5 |  | 173 | 110 | 114 | 47 |  |
| 44 establishments. | 1910 | 832 | . 2594 | 55.9 |  | 173 | 140 | 225 | 150 | 144 |
|  | 1911 | 786 | . 2602 | 56.1 |  | 100 | 156 | 250 | 141 | 139 |
| 63 establishments | 1911 | 1,006 | . 2668 | 56.0 |  | 100 | 265 | 311 | 181 | 149 |
|  | [1912 | 1,076 | . 2618 | 55.9 |  | 115 | 334 | 239 | 239 | 149 |
| Treers or ironers, hand, female: |  |  |  |  |  |  |  |  |  |  |
| 8 establishments.. | $\{1911$ | 70 | . 1439 | 57.8 57.7 |  |  | $\begin{aligned} & 22 \\ & 23 \end{aligned}$ |  | $\begin{aligned} & 32 \\ & \mathbf{2 5} \end{aligned}$ | 22 |
| 11 establishments. | 1911 | 85 | . 1446 | 58.1 |  |  | 23 |  | 25 | 37 |
|  | 1912 | 105 | . 1539 | 54.3 |  | 11 | 67 | 13 | 14 |  |

Table I.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912-Continued.

BOOT AND SHOE MANUFACTURING-Continued.
PER CENT.

| Occupation, sex, and number of establishments. | Year. | Number of em-ployees. | Average rate of wages per hour. | Aver age nominal fulltime hours per week. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\left\lvert\, \begin{gathered} \text { Over } \\ 48 \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}\right.$ | $\begin{array}{\|c\|} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{array}$ | 54. | $\begin{array}{\|c\|} \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{array}$ | $\begin{array}{\|c\|} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{array}$ | 60. |
| $C$ |  |  |  |  |  |  |  |  |  |  |
| Cutters, lining, cloth, male: | /1911 | 115 | \$0. 2701 | 55.4 | 13.9 | 6.1 | 23.5 | 14.8 | 39.1 | 2.6 |
| 31 est | 1912 | 128 | . 2800 | 54.8 | 15.6 | 9.4 | 33.6 | 10.9 | 26.6 | 3.9 |
| Cutters, vamp and whole shoe, hand, male: |  |  |  |  |  |  |  |  |  |  |
| 20 establishments. | $\{1907$ | 919 | . 3250 | 54.9 | 1.2 | 17. 1 | 37.3 | 27.4 | 17.0 |  |
|  | 1908 | 907 | . 3323 | 54.8 | ${ }^{+7}$ | 19.3 | 36.5 | 31.2 | 12.3 |  |
|  | 1909 | 907 | . 3399 | 54.7 | 1.5 | 17.5 | 38.1 | 31.5 | 11.2 |  |
|  | 1910 | 852 | - 3448 | 54.7 | 1.5 | 20.7 | 32.6 | 34.2 | 11.0 | .- |
| 48 establishments. | $\{1910$ | 1,650 | . 3188 | 56.3 | . 8 | 10.7 | 24.5 | 23.9 | 19.3 | 20.7 |
|  | (1911 | 1,602 | . 3169 | 56.2 | . 9 | 9.9 | 26.5 | 24.8 | 19.4 | 18.5 |
| 64 establishments | $\{1911$ | 2,066 | .3127 | 56.2 |  | 7.6 | 28.5 | 28.4 | 18.6 | 16.8 |
| 64 establishments | 11912 | 1,906 | . 3222 | 55.0 | 11.4 | 8.5 | 37.8 | 14.3 | 16.9 | 11.1 |
| Cutters, vamp and whole shoe, machine, male: |  |  |  |  |  |  |  |  |  |  |
| 17 establishments. . . . . . . . . . . . . | $\{1910$ | 235 | . 3013 | 57.8 |  |  | 5.5 | 29.8 | 41.7 | 23.0 |
|  | 1911 | 226 | . 3000 | 57.2 | ... |  | 6.6 | 33.2 | 45.1 | 15.0 |
| 20 establishments | $\{1911$ | 270 | . 3126 | 57.0 |  |  | 21.9 | 25.6 | 32.2 | 20.4 |
| Skivers, upper, machine, male: 12 establishments. | (1912 | 300 | . 3186 | 55.5 | 9.7 | 8.0 | 37.7 |  | 28.3 | 16.3 |
|  | $\{1910$ | 74 | . 2878 | 54.7 |  |  | 66.2 | 17.6 | 16.2 |  |
|  | (1911 | 79 | . 3139 | 54.7 |  |  | 65.8 | 26.6 | 7.6 |  |
| 28 establishments | $\{1911$ | 136 | . 2921 | 54.8 |  |  | 67.6 | 17.6 | 14.7 |  |
| Skivers, upper, machine, female: | 1912 | 146 | . 2885 | 54.6 |  | 6.8 | 68.5 | 7.5 | 16.4 | . 7 |
|  | 1907 | 74 | . 1875 | 56.1 |  |  | 10.8 | 50.0 | 39.2 |  |
| 13 establishments. | 1908 | 70 | . 1918 | 56.5 |  |  | 10.0 | 38.6 | 51.4 | .... |
|  | 1909 | 79 | . 1914 | 56.3 |  |  | 13.9 | 39.2 | 46.8 | .... |
|  | (1910 | 85 | . 1954 | 56.0 |  |  | 9.4 | 41.2 | 49.4 |  |
| 49 establishments. | $\{1910$ | 338 | . 1749 | 57.0 | . 3 | 8.9 | 11.8 | 24.0 | 25.4 | 29.6 |
|  | 1911 | 314 | . 1757 | 57.3 | . 6 | 8.0 | 8.0 | 26.8 | 29.9 | 26.8 |
| 60 establishmen | $\{1911$ | 374 | . 1758 | 57.0 |  | 6.7 | 8.8 | 30.2 | 28.9 | 25.4 |
|  | \{1912 | 345 | . 1914 | 55.1 | 2.6 | 7.5 | 45.8 | 14.5 | 26.4 | 3.2 |
| Sole-leather department. |  |  |  |  |  |  |  |  |  |  |
| Channelers, insole and outsole, male: |  |  |  |  |  |  |  |  |  |  |
|  | 1907 | 23 | . 2829 | 55.1 | 17.4 |  | 34.8 | 8.7 | 39.1 |  |
| 10 establishmen | 1908 | 23 | . 2962 | 55.1 | 17.4 |  | 34.8 | 8.7 | 39.1 |  |
|  | 1909 | 23 | . 3057 | 54.7 | 17.4 |  | 43.5 | 8.7 | 30.4 |  |
|  | (1910 | 23 | . 3004 | 54.7 | 17.4 |  | 43.5 | 8.7 | 30.4 |  |
| 44 establishments. | \{1910 | 138 | . 2963 | 56.3 | 2.9 | 5.1 | 28.3 | 15.9 | 34.8 | 13.0 |
|  | (1911 | 140 | . 3056 | 56.2 | 2.9 | 5.0 | 26.4 | 22.1 | 34.3 | 9.3 |
| 57 establishments. | $\{1911$ | 157 | . 2889 | 56.3 |  | 4.5 | 29.3 | 24.2 | 28.7 | 13.4 |
| Cutters, outsole, male: | \{1912 | 149 | . 2956 | 55.5 | ...... | 8.1 | 40.9 | 20.1 | 26.2 | 4.7 |
|  | $\{1907$ | 50 | . 3144 | 54.8 |  |  | 76.0 | 10.0 | 14.0 |  |
| 10 establishments. | 1908 | 47 | . 3075 | 54.5 |  |  | 74.5 | 21.3 | 4.3 |  |
|  | 1909 | 49 | . 3065 | 54.5 |  |  | 75.5 | 20.4 | 4.1 |  |
|  | (1910 | 54 | . 3089 | 54.4 | -0.0. | -..-. | 77.8 | 18.5 | 3.7 | ..... |
| 31 establishments. | $\{1910$ | 143 | . 2735 | 56.6 |  |  | 33.6 | 20.3 | 32.2 | 14.0 |
|  | 1911 | 129 | . 2770 | 56.5 |  |  | 31.0 | 26.4 | 30.2 | 12.4 |
| 36 establishments. | $\{1911$ | 146 | .2784 | 56.6 |  |  | 29.5 | 29.5 | 26.7 | 14.4 |
|  |  | 161 | . 2861 | 56.4 | ... | 1.2 | 34.8 | 21.1 | 29.8 | 13.0 |

Table I.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912-Continued.

## BOOT AND SHOE MANUFACTURING-Continued.

PER CENT-Continued.


Table I.-AVERAGE RATES OF WaGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912-Continued.

## BOOT AND SHOE MANUFACTURIN ${ }^{\top}$ G-Continued.

PER CENT-Continued.

| Occupation, sex, and number of establishments. | Year. | Number of em-ployees. | Average rate of wages per hour. |  | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\left\lvert\, \begin{gathered} \text { Over } \\ 48 \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}\right.$ | $\begin{array}{\|c\|} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{array}$ | 54. | $\begin{gathered} \text { Over } \\ \text { 54 } \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}$ | $\begin{gathered} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}$ | 60. |
| Fitting or stitching department-Con. Vampers, female: |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 22 establishments. | 1908 | 321 | . 2424 | 55.9 | . 9 | 5.6 | 18.7 | 37.1 | 37.7 |  |
|  | 1909 | 391 | . 2526 | 55.5 | 1.3 | 19.7 | 16.9 | 31.5 | 30.7 |  |
|  | (1910 | 366 | . 2570 | 55.5 | 1.6 | 10.7 | 18.3 | 35.2 | 34.2 | ... |
| 53 establishments. | $\{1910$ | 863 | . 2378 | 56.9 | 2.3 | 4.5 | 14.5 | 23.9 | 27.9 | 26.9 |
|  | (1911 | 909 | . 2382 | 56.7 | 2.9 | 5.0 | 15.2 | 25.2 | 29.5 | 22.3 |
| 71 establishmenta. . . . . | $\{1911$ | 1,124 | . 2384 | 56.5 | 1.9 | 4.0 | 17.0 | 25.9 | 28.0 | 23.2 |
|  | \{1912 | 1,019 | . 2334 | 55.1 | 1.5 | 6.5 | 53.6 | 10.5 | 23.3 | 4.7 |
| Lasting department. |  |  |  |  |  |  |  |  |  |  |
| Assemblers, for pulling-over machine, male: |  |  |  |  |  |  |  |  |  |  |
|  | $\{1911$ | 218 | . 2739 | 55.4 |  |  | 42.7 | 31.7 | 22.5 | 3.2 |
|  | 11912 | 228 | . 2645 | 54.8 | 13.6 |  | 44.7 | 16.2 | 20.6 | 4.8 |
| Bed-machine operators, male: | 1907 | 246 | . 3497 | 54.7 |  | 22.0 | 51.2 | 8.9 | 17.9 |  |
| 15 establishments. | 1908 | 300 | . 3336 | 54.8 |  | 7.7 | 64.7 | 10.3 | 17.3 | .-... |
|  | 1909 | 307 | . 3424 | 54.8 |  | 10.1 | 61.6 | 11.1 | 17.3 | ...... |
|  | (1910 | 300 | . 3214 | 55.0 |  | 5.0 | 56.3 | 12.0 | 26.7 |  |
| 35 establishments. | $\{1910$ | 513 | . 3108 | 56.4 |  | 2.9 | 32.9 | 15.0 | 29.8 | 19.3 |
|  | (1911 | 568 | . 3229 | 56.1 |  | 4.6 | 30.3 | 28.0 | 19.9 | 17.3 |
| 54 establishments | $\{1911$ | 793 | . 3210 | 56.1 |  | 3.3 | 33.2 | 25.3 | 23.1 | 15.1 |
| Hand-method lasting machine operators, male: | (1912 | 1,004 | . 3042 | 55.5 |  | 9.9 | 43.6 | 15.0 | 21.7 | 9.8 |
|  |  |  |  |  |  |  |  |  |  |  |
|  | (1907 | 99 | . 3111 | 57.1 |  |  |  | 39.4 | 60.6 |  |
| 6 establishments. | 1908 | 89 | . 3070 | 56.6 |  |  |  | 53.9 | 46.1 | .... |
|  | 1909 | 75 | . 3088 | 56.7 |  |  |  | 52.0 | 48.0 | .... |
|  | 1910 | 80 | . 3223 | 56.1 |  |  |  | 63.8 | 36.3 |  |
| 33 establishments. | f1910 | 325 | . 3062 | 57.4 | 1.2 |  | 12.0 | 27.7 | 26.5 | 32.6 |
|  | $\{1911$ | 252 | . 3094 | 57.3 | 1.4 |  | 12.8 | 26.7 | 30.4 | 28.7 |
| 39 establishments. | $\{1911$ | 477 | . 3164 | 57.0 |  |  | 19.7 | 28.7 | 23.5 | 28.1 |
| Pullers-over, hand, male:13 establishments. . . | 11912 | 478 | . 3242 | 55.8 | 5.4 |  | 38.5 | 18.0 | 20.3 | 17.8 |
|  | 1907 | 345 | . 2558 | 56.6 |  |  | 22.3 | 21.2 | 56.5 |  |
|  | 1908 | 330 | . 2490 | 56.6 |  |  | 22.4 | 19.1 | 58.5 | .... |
|  | 1909 | 366 | . 2867 | 56.2 |  |  | 30.3 | 22.4 | 47.3 | ... |
|  | 1910 | 384 | . 2763 | 55.9 |  |  | 27.3 | 25.8 | 46.9 |  |
| 35 establishments. | $\{1910$ | 784 | . 2913 | 56.4 | . 6 | 2.4 | 26.4 | 22.7 | 29.1 | 18.7 |
|  | \{1911 | 784 | . 3089 | 56.2 | . 9 | 3.4 | 26.0 | 26.3 | 29.8 | 13.5 |
| 45 establishments | $\{1911$ | 897 | . 3121 | 56.3 |  | 3.0 | 29.3 | 26.1 | 24.4 | 17.2 |
| Pullers-over, machine, male:31 establishments. . . . . . | 1912 | 899 | . 3190 | 55.4 | 2.7 | 12.3 | 33.0 | 20.9 | 23.6 | 7.5 |
|  | $\{1910$ | 251 | . 3204 | 57.4 |  |  | 19.9 | 14.3 | 33. | 31.9 |
|  | 1911 | 266 | . 3188 | 56.5 |  |  | 28.9 | 34.2 | 17.7 | 19.2 |
| 43 establishments. | \{1911 | 328 | . 3253 | 56.1 |  |  | 33.5 | 36.6 | 15.9 | 14.0 |
|  | [1912 | 305 | .3124 | 55.6 | 4.9 | 11.1 | 37.0 | 14.1 | 15.4 | 17.4 |
| Bottoming department. |  |  |  |  |  |  |  |  |  |  |
| Buffers, male:$\quad 36$ establishments |  |  |  |  |  |  |  |  |  |  |
|  | $\{1911$ | 174 | . 2940 | 55.8 | ..... | 2.9 | 29.3 | 28.2 | 38.5 | 1.1 |
|  | 1912 | 170 | . 3068 | 55.8 | ...... | 2.9 | 30.6 | 28.2 | 34.1 | 4.1 |

Table I.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912-Continued.

## BOOT AND SHOE MANUFACTURING-Continued.

PER CENT-Continued.

| Occupation, sex, and number of establishments. | Year. | Number of өm-ployees. | $\begin{aligned} & \text { Aver- } \\ & \text { age } \\ & \text { rate of } \\ & \text { wages } \\ & \text { per } \\ & \text { hour. } \end{aligned}$ | Averagenom-inalfull-timehoursperweek. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{gathered} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}$ | $\left.\begin{array}{\|c\|} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{array} \right\rvert\,$ | 54. | $\begin{gathered} \text { Over } \\ \text { 54 } \\ \text { and } \\ \text { ander } \\ 57 . \end{gathered}$ | $\begin{array}{\|c\|} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{array}$ | 60. |
| Bottoming department-Continued. |  |  |  |  |  |  |  |  |  |  |
| Edge setters, male: | 1907 | 134 | \$0. 3999 | 56.0 |  |  | 23.1 | 37.3 | 39.6 |  |
|  | 1908 | 142 | . 3509 | 56.2 |  |  | 20.4 | 33.8 | 45.8 |  |
| 18 establishments. | 1909 | 150 | . 3806 | 56.1 |  |  | 23.3 | 35.3 | 41.3 |  |
|  | 1910 | 163 | . 3852 | 55.9 |  |  | 20.9 | 35.6 | 43.6 |  |
| 54 establishments. | $\{1910$ | 560 | . 3733 | 56.3 | 0.5 | 12.9 | 17.3 | 25.4 | 26.1 | 17.9 |
|  | 1911 | 573 | . 3800 | 56.3 | . 7 | 10.5 | 19.7 | 25.8 | 25.7 | 17.6 |
| 68 establishments. | 1911 | 722 | . 3800 | 56.3 |  | 8.3 | 26.5 | 23.5 | 24.5 | 17.2 |
| Edge trimmers, male: | 1912 | 698 | . 3392 | 55.3 |  | 7.4 | 36.8 | 21.3 | 20.3 | 14.0 |
|  | 1907 | 283 | . 4043 | 55.3 |  | 16.3 | 32.9 | 23.7 | 27.2 |  |
| 23 establishment | 1908 | 302 | . 2863 | 55.1 |  | 15.9 | 37.4 | 26.2 | 20.5 |  |
|  | 1909 | 287 | . 3975 | 55.2 |  | 16.0 | 32.4 | 28.9 | 22.6 |  |
|  | 1910 | 305 | . 4010 | 55.0 |  | 19.0 | 31.8 | 27.2 | 22.0 |  |
| 55 establishmen | \{1910 | 573 | . 3818 | 56.4 | . 5 | 10.1 | 20.4 | 23.9 | 23.9 | 21.1 |
|  | [1911 | 615 | . 3899 | 56.2 | . 7 | 8.9 | 22.6 | 28.5 | 22.8 | 16.6 |
| 71 establishments. | $\{1911$ | 765 | . 3890 | 56.1 |  | 7.2 | 28.8 | 26.1 | 22.7 | 15.2 |
| Goodyear stitchers, male: | (1912 | 751 | . 3855 | 55.9 | . | 6.8 | 35.2 | 19.4 | 25.6 | 12.0 |
|  | 1907 | 215 | . 4034 | 55.3 |  | 10.7 | 43.3 | 20.9 | 25.1 |  |
| 21 | 1908 | 214 | . 3759 | 55.1 |  | 9.8 | 43.0 | 27.6 | 19.6 |  |
|  | 1909 | 221 | . 3944 | 55.3 |  | 11.8 | 34.4 | 29.9 | 24.0 |  |
|  | 1910 | 224 | . 3875 | 55.2 |  | 9.4 | 34.4 | 31.3 | 25.0 |  |
| 45 establish | 1910 | 366 | . 3739 | 56.3 | . 8 | 5.7 | 24.0 | 26.2 | 24.3 | 18.9 |
|  | 11911 | 398 | . 3879 | 56.0 | . 8 | 7.0 | 26.6 | 29.6 | 20.4 | 15.6 |
| 61 establishments. | 1911 | 529 | . 3868 | 55.9 |  | 5.3 | 34.8 | 25.1 | 20.8 | 14.0 |
| Goodyear welters, male: | 1912 | 562 | . 3847 | 55.9 |  | 6.8 | 39.3 | 18.3 | 18.7 | 16.9 |
|  | 1507 | 67 | . 4087 | 55.9 |  |  | 32.8 | 28.4 | 38.8 |  |
| 14 establishments. | 1908 | 70 | . 4087 | 56.0 |  |  | 32.9 | 25.7 | 41.4 |  |
|  | 11909 | 82 | . 44325 | 55.7 |  |  | 36.5 | 28.4 | 35.1 |  |
|  | 1910 | 81 | . 4222 | 55.6 |  |  | 35.8 | 24.7 | 39.5 |  |
| 45 establishments. | 1910 | 275 | . 4373 | 56.2 | . 7 | 6.9 | 28.7 | 22.5 | 22.2 | 18.9 |
|  | 11511 | 289 | . 4637 | 56.0 | .7 | 9.3 | 27.0 | 27.3 | 18.0 | 17.6 |
| 60 establishments. | 1911 | 392 | .4520 | 56.0 |  | 6.9 | 33.7 | 23.7 | 19.6 | 16.1 |
| Heel breasters, male: | (1912 | 411 | . 4544 | 55.8 |  | 9.7 | 39.4 | 16.5 | 20.4 | 13.9 |
|  | 1911 | 76 | . 2906 | 56.1 |  | 2.6 | 25.3 | 26.3 | 40.8 | 3.9 |
| Heel burnishers, male: | 11912 | 77 | . 3017 | 55.7 |  | 10.4 | 29.9 | 24.7 | 29.9 | 5.2 |
|  | 1911 | 106 | . 3062 | 55.6 |  | 1.9 | 39.6 | 25.5 | 32.1 | 9 |
| Heelers, male: | 1912 | 108 | . 3127 | 55.4 |  | 4.6 | 41.7 | 23.1 | 27.8 | 2.8 |
|  |  |  |  |  |  |  |  |  |  |  |
| 31 establishments. | $\{1911$ | ${ }_{124}^{115}$ | . 4034 | 55.8 | .... | 8.7 | 28.7 | 22.6 | 38.3 | 1.7 |
| Heel scourers, male:35 establishment | 1912 | 124 | . 3900 | 20.7 |  | 6.5 | 37.1 | 20.2 | 31.5 | 4.8 |
|  | 1911 | 125 | . 2908 | 54.8 |  | 5.6 | 35.2 | 24.0 | 33.6 | 1.6 |
| Heel-seat nailers, male: | 11912 | 154 | . 2940 | 55.5 | ..... | 9.7 | 38.3 | 15.6 | 33.8 | 2.6 |
|  | 1911 | 43 | . 2987 | 55.8 |  |  | 39.5 | 23.3 | 34.9 | 2.3 |
| Heel sluggers, male: | 1912 | 43 | . 2706 | 55.8 |  |  | 44.2 | 20.9 | 30.2 | 4.7 |
|  | 1911 | 77 | . 2848 | 55.9 |  |  | 35.1 | 24.7 | 36.4 | 3.9 |
|  | [1912 | 79 | . 2901 | 55.8 |  |  | 39.2 | 21.5 | 34.2 | 5.1 |

Table I.-AVERage Rates of wages per hour and average and CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912—Concluded.

BOOT AND SHOE MANUFACTURING-Continued.
PER CENT-Concluded.

| Occupation, sex, and number of establishments. | Year. | Number of em-ployees. | Average rate of wages per hour. | A verage nominal fulltime hours per week. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{gathered} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}$ | 51 and under 54. | 54. | $\begin{array}{\|c} \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{array}$ | 57 and under 60. | 60. |
| Bottoming department-Concluded. |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 33 establishments. | 1908 | 84 | . 4387 | 55.2 |  | 17.9 | 26.2 | 34.5 | 21.4 |  |
|  | 1909 | 82 | . 4465 | 55.3 |  | 14.6 | 26.8 | 34.1 | 24.4 |  |
|  | 1910 | 91 | . 4430 | 55.2 |  | 18.7 | 23.1 | 34.1 | 24.2 |  |
| 55 establishments. | $\{1910$ | 189 | . 4096 | 56.6 | 0.5 | 9.0 | 14.3 | 28.6 | 26.5 | 21.2 |
|  | \{1911 | 193 | . 4152 | 56.5 | . 5 | 8.3 | 15.0 | 30.6 | 26.9 | 18.7 |
| 71 establishments. | $\{1911$ | 246 | . 4154 | 56.5 |  | 6.5 | 19.1 | 32.5 | 24.4 | 17.5 |
| 71 establishments. | \{1912 | 239 | . 4148 | 56.0 |  | 7.5 | 29.3 | 23.4 | 26.4 | 13.4 |
| Levelers, male: |  |  |  |  |  |  |  |  |  |  |
| 36 establishments. | $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ | 102 | . 2908 | 55.8 55.7 |  | 6.9 6.9 | 31.4 36.3 | 22.5 | 36.3 29.4 | 5.9 |
| McKay sowers, male: $\quad 11907$ ( 34.10880 |  |  |  |  |  |  |  |  |  |  |
| 5 establishments. | $(1907$ | 34 | . 2880 | 55.2 |  | 41.2 |  | 32.4 | 26.5 |  |
|  | 1908 | 25 | . 3113 | 55.3 |  | 36.0 | ... | 36.0 | 28.0 |  |
|  | 1909 | 28 | . 2737 | 55.7 |  | 32.1 |  | 28.6 | 39.3 |  |
|  | (1910 | 26 | . 2787 | 55.2 |  | 38.5 |  | 26.9 | 34.6 |  |
| 28 establishments. | $\{1910$ | 95 | . 2897 | 57.1 | 1.1 | 10.5 | 5.3 | 25.3 | 31.6 | 26.3 |
|  | $\{1911$ | 107 | . 2900 | 56.7 | . 9 | 12.1 | 6.5 | 27.1 | 40.2 | 13.1 |
| 30 establishments. | $\{1911$ | 129 | . 2956 | 56.5 |  | 10.1 | 7.0 | 38.0 | 33.3 | 11.6 |
|  | \{1912 | 128 | . 2854 | 56.3 |  | 2.3 | 18.8 | 31.3 | 39.1 | 8.6 |
| Rongh rounders, male:15 establishments. . |  |  |  |  |  |  |  |  |  |  |
|  | $\int_{1907}^{1907}$ | 48 | . 3874 | 56.0 56.0 |  |  | 27.1 | 31.2 32.7 | 41.7 40.8 |  |
|  | $\{1909$ | 54 | . 4342 | 55.8 |  |  | 33.3 | 39.6 | 37.0 | .-. |
|  | 1910 | 56 | . 4115 | 55.5 |  |  | 33.9 | 28.6 | 37.5 |  |
| 44 establishmen | 1910 | 165 | . 4056 | 56.7 | . 6 |  | 24.8 | 24.2 | 26.7 | 23.6 |
|  | \{1911 | 167 | . 4375 | 56.5 | . 6 |  | 23.4 | 35.3 | 19.8 | 21.0 |
| 60 establishmen | $\{1911$ | 221 | . 4364 | 56.3 |  | . 9 | 25.4 | 30.8 | 19.5 | 19.5 |
|  | \{1912 | 248 | . 4388 | 55.9 |  | 9.3 | 35.5 | 20.2 | 20.2 | 14.9 |
| Finishing department. |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 17 establishments. | $(1907$ | 381 | . 3047 | 54.7 |  | 28.1 | 40.2 | 18.9 | 12.9 |  |
|  | $\{1908$ | 364 | . 2941 | 54.5 | ..... | 29.4 | 6. 3 | 28.0 | 6.3 |  |
|  | $\{1909$ | 377 | . 2925 | 54.6 |  | 27.9 | 32.9 | 30.0 | 9.3 | . |
|  | 11910 | 444 | . 2876 | 54.5 |  | 39.0 | 24.8 | 25.7 | 10.6 |  |
| 44 establishments. | 1910 | 832 | . 2594 | 55.9 |  | 20.8 | 16.8 | 27.0 | 18.0 | 17.3 |
|  | (1911 | 786 | . 2602 | 56.1 |  | 12.7 | 19.8 | 31.8 | 17.9 | 17.7 |
| 63 establishments. | \{1911 | 1,006 | . 2668 | 56.0 |  | 9.9 | 26.3 | 30.9 | 18.0 | 14.8 |
|  | $\{1912$ | 1,076 | . 2618 | 55.9 |  | 10.7 | 31.0 | 22.2 | 22.2 | 13.8 |
| Treers or ironers, hand, ferrale: |  |  |  |  |  |  |  |  |  |  |
| 8 establishments......... | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | 74 | . 1432 | 57.8 |  |  | 39.7 |  | 43.2 | 27.0 31.4 |
|  |  |  |  |  |  |  |  |  |  |  |
| 11 establishm | \{1911 | 85 | . 1446 | 58.1 |  |  | 27.1 |  | 29.4 | 43.5 |
| 11 establishm | [1912 | 105 | . 1539 | 54.3 |  | 10.5 | 63.8 | 12.4 | 13.3 |  |

Table II.-AVERAGE RATES OFWAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912.

BOOT AND SHOE MANUFACTURING-Continued.
CUTTING DEPARTMENT.


Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912-Continued.

## BOOT AND SHOE MANUFACTURING-Continued.

CUTTING DEPARTMENT-Continued.

| Occupation, year, and State. | Number of estab-lishments. | $\left\|\begin{array}{c} \text { Num- } \\ \text { ber of } \\ \text { elom- } \\ \text { ployes. } \end{array}\right\|$ | $\begin{aligned} & \text { Aver- } \\ & \text { age } \\ & \text { rate of } \\ & \text { wages } \\ & \text { per } \\ & \text { hour. } \end{aligned}$ | $\begin{array}{\|c\|} \text { A ver- } \\ \text { age } \\ \text { nomi- } \\ \text { nal full- } \\ \text { time } \\ \text { hours } \\ \text { per } \\ \text { week. } \end{array}$ | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{array}{\|c} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { under } \\ 51 . \end{array}$ | $\begin{array}{\|c\|} \text { 51 } \\ \text { and } \\ \text { under } \\ 54 . \end{array}$ | 54. | $\begin{aligned} & \text { Over } \\ & \text { 54 } \\ & \text { and } \\ & \text { under } \\ & 57 . \end{aligned}$ | $\begin{gathered} 57 \\ \text { and } \\ \text { ander } \\ 60 . \end{gathered}$ | 60. |
| Cutters, vamp and whole shoe, machine, male-Concluded. $1911 .$ |  |  |  |  |  |  |  |  |  |  |
| Massachusetts.. | 8 | 79 | \$0. 3589 | 54.6 |  |  | 42 | 34 | 3 |  |
| Missouri. | 3 | 55 | . 2536 | 59.7 |  |  |  |  | 16 | 39 |
| New Hampshir | 2 | 54 | . 2944 | 57.1 |  |  |  | 17 |  |  |
| New York... | 4 | 35 | . 4007 | 55.0 |  |  | 17 | 18 |  |  |
| Other States | 3 | 47 | . 2590 | 59.0 |  |  |  |  | 31 |  |
| Total. | 20 | 270 | . 3126 | 57.0 |  | ..... | 59 | 69 | 87 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Massachusetts.. | 8 | 95 | . 3571 | 52.8 | 29 |  | 66 |  |  |  |
| Missouri. | 3 | 50 | . 2579 | 57.7 |  |  | 19 |  |  |  |
| New Hampshire | 2 | 63 | . 3719 | 57.3 |  |  |  |  |  |  |
| New York.. | 4 | 52 | . 3736 | 53.2 |  | 24 | 28 |  |  |  |
| Other States. |  |  | . 2576 | 59.2 |  |  |  |  | 22 | 18 |
| Total. | 20 | 300 | . 3186 | 55.5 | 29 | 24 | 113 | ... | 85 | 49 |
| Skivers, upper, machine, male. $1910 .$ |  |  |  |  |  |  |  |  |  |  |
| Massachusetts. Other States. . | $\begin{aligned} & 7 \\ & 5 \end{aligned}$ | $\begin{aligned} & 58 \\ & 16 \end{aligned}$ | $\begin{array}{r} .2754 \\ .3331 \end{array}$ | $\begin{aligned} & 54.2 \\ & 56.8 \end{aligned}$ |  |  | 49 | 9 4 | 12 |  |
| Total. | 12 | 74 | . 2878 | 54.7 |  |  | 49 | 13 | 12 |  |
| 1911. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts. Other States. | $\begin{aligned} & 16 \\ & 12 \end{aligned}$ | $\begin{gathered} 104 \\ 32 \end{gathered}$ | .2975 .2747 | 54.2 56.9 |  |  | 92 | 10 |  |  |
| Total. | 28 | 136 | . 2921 | 54.8 |  |  | 92 | 24 | 20 |  |
| 1912. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts. | 16 | 110 | . 2954 | 54.1 |  |  | 100 |  |  |  |
| Other States. | 12 | 36 | . 2675 | 56.1 |  | 10 |  | 2 |  |  |
| Total. | 28 | 146 | . 2885 | 54.6 |  | 10 | 100 | 11 | 24 |  |
| Skivers, upper, machine, female. $1910 .$ |  |  |  |  |  |  |  |  |  |  |
| Massachusetts. | 12 | 106 | . 1812 | 54.6 | 1 | 28 | 25 | 49 | 3 |  |
| Missouri. | 8 | 58 | . 1591 | 60.0 |  |  |  |  |  |  |
| New Hampshire | 6 | 42 | . 1794 | 57.1 |  |  |  | 2 | 40 |  |
| New York. | 6 | 32 | . 1931 | 56.6 |  | 2 | 13 | 3 | .... |  |
| Ohio. | 4 | 20 | . 1794 | 59.9 |  |  |  |  |  | 14 |
| Other States | 13 | 80 | . 1671 | 57.4 |  |  | 2 | 27 | 37 |  |
| Total. | 49 | 338 | . 1749 | 57.0 | 1 | 30 | 40 | 81 | 86 | 100 |
| Massachusetts.. | 16 | 107 | . 1969 | 54.9 |  | 24 | 12 | 66 | 5 |  |
| Missouri... | 5 | 52 | . 1551 | 59.9 |  |  |  |  | 6 |  |
| New Hampshire. | 6 | 48 | . 1716 | 57.1 |  |  |  | 4 | 44 |  |
| New York. | 8 | 38 | . 1925 | 56.2 |  | 1 | 19 | 5 |  |  |
| Ohio. | 5 | 32 | . 1661 | 59.9 |  |  |  |  | 7 |  |
| Other States. | 20 | 97 | . 1622 | 57.2 |  |  | 2 | 38 | 46 |  |
| Total. | 60 | 374 | . 1758 | 57.0 | ...... | 25 | 33 | 113 | 108 | 95 |

Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912-Continued.

BOOT AND SHOE MANUFACTURING-Continued.
CUTTTING DEPARTMENT-Concluded.


SOLE-LEATHER DEPARTMENT.


Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912-Continued.

## BOOT AND SHOE MANUFACTURING—Continued.

## PITTING OR STITCHING DEPARTMENT.



Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912—Continued.

## BOOT AND SHOE MANUFACTURING-Continued.

FITTING OR STITCHING DEPARTMENT-Continued.


Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912—Continued.

## BOOT AND SHOE MANUFACTURING-Continued.

FITTING OR STITCHING DEPARTMENT—Continued.

| Occupation, year, and State. | Number of estab-lishments. | $\left\|\begin{array}{c} \text { Num- } \\ \text { ber of } \\ \text { em- } \\ \text { ployees. } \end{array}\right\|$ | Average rate of wages hour. | age nal full time hours week. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{gathered} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}$ | $\left\lvert\, \begin{gathered} \text { 51 } \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}\right.$ | 54. | Over 54 and under 57. | $\begin{gathered} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}$ | 60. |
| Tipstitchers,female—Concluded. $1912 .$ |  |  |  |  |  |  |  |  |  |  |
|  | ${ }_{21}^{15}$ | 69 68 | $\begin{array}{r} \$ 0.2383 \\ .1927 \end{array}$ | $\begin{aligned} & 54.0 \\ & 56.4 \end{aligned}$ |  | 12 | 54 14 | 3 14 | 40 |  |
| Total. | 36 | 137 | . 2157 | 55.2 | $\ldots$ | 12 | 68 | 17 | 40 | ..... |
| Top stitchers or undertrimmers, female. <br> 1910. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts. | 15 | 254 | . 2067 | 54.6 | 3 | 64 | 79 | 93 | 15 |  |
| Missouri. . | 8 | 116 | . 1774 | 60.0 |  |  |  |  |  | 110 |
| New Hampshir | 6 | 80 | . 1690 | 57.0 |  |  |  | 9 | 71 |  |
| New York. | 6 | 65 | . 1876 | 57.0 |  |  | 27 | 5 | 7 | 20 |
| Ohio.. | 4 | 56 | . 1639 | 59.8 |  |  |  |  | 19 | 37 |
| Other States. | 14 | 150 | . 1858 | 57.5 |  |  | 5 | 41 | 80 | 24 |
| Total. | 53 | 721 | . 1884 | 56.9 | 3 | 64 | 111 | 148 | 192 | :03 |
| Massachusetts. | 22 | 344 | . 2202 | 54.6 |  | 63 | 133 | 131 | 17 |  |
| Missouri... | 8 | 111 | . 1718 | 59.3 |  |  |  | 12 | 23 | 76 |
| New Hamps | 11 | 88 | . 2085 | 56.9 56.5 |  |  | 47 | 14 4 | 78 9 | 28 |
| Ohio. | 5 | 86 | . 1588 | 59.9 |  |  |  |  | 26 | 60 |
| Other States | 21 | 190 | . 1785 | 57.6 |  |  | 3 | 51 | 115 | 21 |
| Total. | 73 | 911 | . 1941 | 56.7 | ..... | 63 | 183 | 212 | 268 | 185 |
| Massachusetts. | 22 | 378 | . 2156 | 53.7 | 24 | 63 | 291 |  |  |  |
| Missouri... | 8 | 88 | . 1786 | 54.0 |  |  | 88 |  |  |  |
| New Hampsh | 6 | 106 | . 1640 | 57.2 |  |  |  |  | 106 |  |
| New York. | 11 | 114 | . 2097 | 54.9 | 5 | 18 | 61 | 1 | 2 | 27 |
| Other States. | 5 21 | 78 186 | .1854 .1880 | 54.0 56.7 |  |  | 78 | 79 | 104 |  |
| Total. | 73 | 950 | . 1978 | 54.9 | 29 | 81 | 521 | 80 | 212 | 27 |
| Massachusetts.. | 10 | 134 | . 3152 | 54.1 |  | 48 | 61 | 25 |  |  |
| New Hampshire | 5 | 33 | . 23019 | 56.6 |  |  |  | 7 | 19 |  |
| Other States. | 13 | 61 | . 2683 | 56.2 57.9 |  |  | 6 | 16 | 12 | 28 |
| Total. | 33 | 263 | . 2927 | 55.5 | $\ldots$ | 48 | 67 | 63 | 57 | 28 |
| Massachusetts. |  | 186 |  |  |  | 21 | 133 |  |  |  |
| New Hampshire | 6 | 47 | . 2482 | 56.7 |  |  |  | 9 | 38 |  |
| New York. | 8 | 36 | . 3238 | 55.6 |  |  |  | 34 | 2 |  |
| Other States. | 20 | 74 | . 2920 | 57.8 |  |  | 5 | 22 | 18 | 29 |
| Total. | 51 | 343 | . 3147 | 55.5 | ...... | 21 | 138 | 94 | 61 | 29 |

[^5]Table II.-AVERAGE Rates of wages Per hour and average and CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912-Continued.

BOOT AND SHOE MANUFACTURING-Continued.
FITTING OR STITCHING DEPARTMENT-Concluded.


JASTING DEPARTMENT.


Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912-Continued.

## BOOT AND SHOE MANUFACTURING-Continued.

LASTING DEPARTMENT-Continued.

| Occupation, year, and State. | Number of estab-lishments. | Num-ber ofem-ployees. | Average rate of wages hour. | age nal full time hours perweek. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\left\lvert\, \begin{gathered} \text { Over } \\ 48 \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}\right.$ | $\begin{array}{\|c} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{array}$ | 54. | $\left\lvert\, \begin{gathered} \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}\right.$ | $\begin{gathered} \text { 57 } \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}$ | 60. |
| Bed-machine operators, male. $1910 .$ |  |  |  |  |  |  |  |  |  |  |
| Massachusetts. | 7 | 207 | \$0.3429 | 54.2 |  | 15 | 161 | 31 |  |  |
| Missouri... | 7 | 41 | . 2924 | 60.0 |  |  |  |  |  | 41 |
| New Hampshire | 3 | 67 | . 2464 | 56.9 |  |  |  |  | 62 |  |
| New York. | 5 | 73 | . 3286 | 57.9 |  |  | 4 | 5 | 45 | 19 |
| Ohio. | 3 | 42 | . 2983 | 59.8 |  |  |  |  | 17 | 25 |
| Other States | 10 | 83 | . 2823 | 56.9 |  |  | 4 | 36 | 29 | 14 |
| Total. | 35 | 513 | . 3108 | 56.4 |  | 15 | 169 | 77 | 153 | 99 |
|  |  |  |  |  |  |  |  |  |  |  |
| Massachusetis. | 14 | 331 | . 3523 | 44.3 |  | 26 | 246 | 46 | 13 |  |
| Missouri......̈. | 6 3 | 50 72 | . 34068 | 58.7 56.6 |  |  |  | 13 | 58 | 37 |
| New York. | 9 | 96 | . 3442 | 56.5 |  |  | 14 | 52 | 15 | 15 |
| Ohio. | 5 | 72 | . 2977 | 59.9 |  |  |  |  | 17 | 55 |
| Other States | 17 | 172 | . 2927 | 56.9 |  |  | 3 | 76 | 80 | 13 |
| Total. | 54 | 793 | . 3210 | 56.1 | ..... | 26 | 263 | 201 | 183 | 120 |
|  |  |  |  |  |  |  |  |  |  |  |
| Massachusetts. | 14 | 470 | . 3054 | 54.3 |  | 58 | 339 | 60 |  | 13 |
| Missouri.... | 6 | 54 | . 2778 | 59.6 |  |  |  |  | 19 | 35 |
| New Hampshire | 3 | 91 | . 2403 | 57.2 |  |  |  |  | 91 |  |
| New York. | 9 | 131 | . 3458 | 54.7 |  | 41 | 46 | 20 | 11 | 13 |
| Ohio. | 5 | 87 | . 3080 | 56.6 |  |  | 50 |  |  | 37 |
| Other State | 17 | 171 | . 3093 | 56.9 |  |  | 3 | 71 | 97 |  |
| Total. | 54 | 1,004 | . 3042 | 55.5 |  | 99 | 438 | 151 | 218 | 98 |
| Hand-method lasting machine operators, male. <br> 1910. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts.. | 8 | 114 | . 3481 | 55.3 | 4 |  | 19 | 78 | 13 |  |
| Missouri........ | 8 | 75 58 | . 27246 | 650.0 57.1 |  |  |  | 10 | 48 | 75 |
| New York...... | b | 26 | . 3427 | 55.4 |  |  | 20 | 10 | 4 | 6 |
| Ohio.. | 3 | 21 | . 3239 | 59.9 |  |  |  |  | 6 | 15 |
| Other States | 6 | 31 | . 2875 | 58.8 |  |  |  | 2 | 19 | 10 |
| Total. | 33 | 325 | . 3052 | 57.4 | 4 |  | 39 | 90 | 86 | 106 |
|  |  |  |  |  |  |  |  |  |  |  |
| Massachusetts. | 12 | 204 | . 3682 | 55.0 |  |  | 76 | 115 | 13 |  |
| Missouri.... | 7 | 85 | . 2884 | 59.8 |  |  |  |  | 18 | 67 |
| New Hampshir | 4 | 59 | . 2222 | 57.2 |  |  |  | 10 | 49 |  |
| New York | 3 | 35 | . $32 \angle 6$ | 55.6 |  |  | 18 | 9 |  |  |
| Ohio. | 5 | 48 | . 2870 | 59.9 |  |  |  |  | 5 | 43 |
| Other States | 8 | 46 | . 2855 | 58.8 |  |  |  | 3 | 27 | 16 |
| Total. | 39 | 477 | . 3164 | 57.0 | .... |  | 94 | 137 | 112 | 134 |
| Massachusetts. |  |  |  |  | 26 |  |  | 72 |  |  |
| Missouri..... | 12 | 73 | . 2808 | 58.8 |  |  | 14 |  |  | 59 |
| New Hampshire |  | 60 | . 2633 | 57.5 |  |  |  |  | 60 |  |
| New York........................ | 3 | 46 | . 3529 | 55.9 |  |  | 25 | 8 |  | 13 |
| Ohio. | 5 | 42 | . 3476 | 55.9 |  |  | 29 |  |  | 13 |
| Other States | 8 | 36 | . 3078 | 57.6 |  |  |  | 6 | 30 |  |
| Total. | 39 | 478 | . 3242 | 55.8 | 26 |  | 184 | 86 | 97 | 85 |

Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912-Continued.

BOOT AND SHOE MANUFACTURING-Continued.
LASTING DEPARTMENT-Concluded.


Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AN D CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912 —Continued.

## BOOT AND SHOE MANUFACTURING-Continued.

BO'TOMMIN DEPARTMENT.


Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER VEEK IN EACH YEAR, BY STATES, 1910 TO 1912-Continued.

BOOT AND SHOE MANUFACTURING-Continued.
BOTTOMING DEPARTMENT-Continued.

| Occupation, year, and State. | Number of estab-lishments. | $\left\lvert\, \begin{gathered} \text { Num- } \\ \text { ber of } \\ \text { em- } \\ \text { ployees. } \end{gathered}\right.$ | Average rate of wages per hour. |  | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{gathered} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}$ | $\begin{gathered} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}$ | 54. | $\begin{aligned} & \text { O yer } \\ & \text { 54 } \\ & \text { and } \\ & \text { under } \\ & 57 . \end{aligned}$ | $\begin{gathered} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}$ | 60. |
| Edge trimmers, male-Concluded.$1911 .$ |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Massachusetts. . | 22 | 367 | \$0.4179 | 54.5 |  | 55 | 184 | 113 | 15 |  |
| Missouri.. | 7 |  | . 3311 | 59.9 |  |  |  |  | 8 | 46 |
| New Hampshire | 6 | 84 | . 2997 | 56.8 |  |  |  | 16 | 68 |  |
| New York.. | 10 | 91 | . 4202 | 56.1 |  |  | 34 | 31 | 7 |  |
| Ohio. | 5 | 52 | . 3819 | 59.9 |  |  |  |  | 11 | 41 |
| Other States | 21 | 117 | . 3682 | 57.3 |  |  | 2 | 40 | 65 | 10 |
| Total. | 71 | 765 | . 3890 | 56.1 |  | 55 | 220 | 200 | 174 | 116 |
| 1912. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts. | 22 | 332 | . 3946 | 54.6 |  | 30 | 190 | 96 | 8 | 8 |
| Missouri... | 7 | 48 | . 3391 | 59.3 |  |  | 6 |  |  | 42 |
| New Hampshire | 6 | 97 | . 3283 | 57.4 |  |  |  |  | 97 |  |
| New York. | 10 | 92 | . 4178 | 55.3 |  | 21 | 41 | 6 | 5 | 19 |
| Ohio.. | 5 | 53 | . 3917 | 57.3 |  |  | 24 |  |  | 29 |
| Other States | 21 | 129 | . 3967 | 57.1 |  |  | 3 | 44 | 82 |  |
| Total. | 71 | 751 | . 3855 | 55.9 |  | 51 | 264 | 146 | 192 | 98 |
| Goodyear stitchers, male. |  |  |  |  |  |  |  |  |  |  |
| 1910. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts. | 14 | 158 | . 4012 | 54.4 | 3 | 21 | 80 | 49 | 5 |  |
| Missouri... | 6 | 34 | . 3232 | 60.0 |  |  |  |  |  | 34 |
| New Hampshire | 3 | 49. | . 2756 | 56.6 |  |  |  | 10 | 39 |  |
| New York.. | 6 | 39 | . 4259 | 57.6 |  |  | 4 | G | 19 | 10 |
| Ohio. | 4 | 25 | . 3026 | 59.9 |  |  |  |  | 7 | 18 |
| Other States | 12 | 61 | . 4065 | 56.5 |  |  | 4 | 31 | 19 | 7 |
| Total. | 45 | 366 | . 3739 | 56.3 | 3 | 21 | 88 | 96 | 89 | 69 |
| 1911. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts.. | 20 | 258 | . 4101 | 54.4 |  | 28 | 165 | 56 | 9 |  |
| Missouri.... | 6 | 33 | . 3705 | 59.1 |  |  |  | 6 |  | 27 |
| New Hampshire | 3 | 58 | . 2650 | 56.5 |  |  |  | 14 | 44 |  |
| New York | 8 | 55 | . 406 - 2 | 56.7 |  |  | 14 | 20 | 8 | 13 |
| Ohio.. | 5 | 39 | . 3494 | 59.9 |  |  |  |  | 9 | 30 |
| Other states | 19 | 86 | . 4087 | 56.8 |  |  | 5 | 37 | 40 | 4 |
| Total. | 61 | 529 | . 3868 | 55.9 |  | 28 | 184 | 133 | 110 | 74 |
| 1912. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts. | 20 | 245 | . 3989 | 54.4 |  | 21 | 166 | 47 | 5 |  |
| Missouri... | 6 | 52 | . 3480 | 59.9 |  |  |  |  | 6 | 46 |
| New Hampsh | 3 | 43 | . 2865 | 57.3 |  |  |  |  | 43 |  |
| New York. | 8 | 69 | . 4479 | 55.4 |  | 17 | 25 | 10 |  | 17 |
| Ohio. | 5 | 52 | . 2961 | 57.0 |  |  | 26 |  |  | 26 |
| Other States | 19 | 101 | . 4129 | 56.6 |  |  | 4 | 46 | 51 |  |
| Total. | 61 | 562 | . 3547 | 55.9 |  | 38 | 221 | 103 | 105 | 95 |
| Goodyear welters, male.$1910 .$ |  |  |  |  |  |  |  |  |  |  |
| Massachusetts. | 12 | 111 | . 4857 | 54.3 | 2 | 19 | 62 | 24 | 4 |  |
| Missouri........ | $\stackrel{6}{6}$ | 24 | . 4583 | 60.0 |  |  |  |  |  | 24 |
| New Hampshire. | 3 | 31 | . 3335 | 56.5 |  |  |  | 8 | 23 |  |
| New York. |  | 40 | . 4075 | 56.3 |  |  | 15 | 5 | 16 |  |
| Ohio-- ${ }^{\text {Otates }}$ | 4 | 22 | . 3773 | 59.9 |  |  |  |  | 5 | 17 |
| Other States | 13 | 47 | . 4339 | 56.6 |  |  | 2 | 25 | 13 | 7 |
| Total. | 45 | 275 | . 4373 | 56.2 | 2 | . 19 | 79 | 62 | 61 | 52 |

Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912-Continued.

BOOT AND SHOE MANUFACTURING-Continued. BOTTOMING DEPARTMENT-Continued.

| Occupation, year, and State. | Number of estab-lishments. | $\left\lvert\, \begin{gathered} \text { Num. } \\ \text { ber of } \\ \text { em. } \\ \text { ployees. } \end{gathered}\right.$ | Average rate of wages hour. |  | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{gathered} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}$ | $\begin{gathered} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}$ | 54. | $\begin{gathered} \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}$ | $\begin{array}{c\|} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{array}$ | 60. |
| Goodyear welters, male-Coneld.$1911 .$ |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Massachusetts.. | 18 | 179 | \$0. 4989 | 54.3 |  | 27 | 119 | 28 | 5 |  |
| Missouri... | 6 | 30 | .4696 | 59.2 |  |  |  | 5 |  | 25 |
| New Hampshire | 3 | 33 | . 3313 | 56.5 |  |  |  | 9 | 24 |  |
| New York...... | 9 | 45 | . 4492 | 56.1 |  |  | 11 | 23 | 5 | 6 |
| Ohio.. | 5 | 32 | . 3691 | 59.9 |  |  |  |  | 6 | 26 |
| Other States | 19 | 73 | . 4226 | 57.2 |  |  | 2 | 28 | 37 | 6 |
| Total. | 60 | 392 | . 4520 | 56.0 | $\ldots$ | 27 | 132 | 93 | 77 | 63 |
| Massachusetts. | 18 | 192 | 4767 | 54.4 |  | 30 | 126 | 28 |  |  |
| Missouri... | 6 | 39 | . 4481 | 59.8 |  |  |  |  | 6 | 33 |
| New Hampshire | 3 | 31 | . 3723 | 57.3 |  |  |  |  | 31 |  |
| New York. | 9 | 40 | . 5218 | 54.8 |  | 10 | 15 | 7 | 5 | 3 |
| Ohio.. | $\stackrel{5}{3}$ | 35 | . 3823 | 56.9 |  |  | 18 |  |  |  |
| Other States | 19 | 74 | . 4319 | 50.7 |  |  | 3 | 33 | 38 |  |
| Total. | 60 | 411 | . 4544 | 55.8 |  | 40 | 162 | 68 | 84 | 57 |
| Heel breasters, male. |  |  |  |  |  |  |  |  |  |  |
| 1911. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts. | 16 | 38 | . 3353 | 54.8 |  | 2 | 18 | 15 | 3 |  |
| Other States. | 19 | 38 | . 2559 | 57.4 |  | ..... | 2 | 5 | 28 | 3 |
| Total. | 35 | 76 | . 2906 | 56.1 |  | 2 | 20 | 20 | 31 | 3 |
| Massachusetts. | 16 | 44 | . 3196 | 54.7 |  | 8 |  |  |  | 1912. |
| Other States.. | 19 | 33 | . 2777 | 57.0 |  |  | 4 | . 5 | 21 | 3 |
| Total. | 35 | 77 | . 3017 | 55.7 |  | 8 | 23 | 19 | 23 | 4 |
| İeel burnishers, male. |  |  |  |  |  |  |  |  |  |  |
| 1911. |  |  |  |  |  |  |  |  |  |  |
| Massachusetis.. |  |  |  | 54.6 |  | 2 |  | 23 | 3 |  |
| Other States. | 17 | 40 | . 2674 | 57.1 |  |  | 4 |  | 31 | 1 |
| Total. | 33 | 106 | . 3062 | 55.6 |  | 2 | 42 | 27 | 34 | 1 |
|  |  |  |  |  |  |  |  |  |  |  |
| Other States....................... | 17 | 39 | .3327 .2720 | 56.8 |  | 5 | 39 6 | 21 4 | 28 | 1 |
| Total.. | 33 | 108 | . 3127 | 55.4 | ... | 5 | 45 | 25 | 30 | 3 |
| Heelers, inale. |  |  |  |  |  |  |  |  |  |  |
| 1911. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts.. | 14 | 65 | . 4435 | 54.7 |  | 10 |  | 20 | 6 |  |
| Other States. | 17 | 50 | . 3513 | 57.2 |  |  | 4 | 6 | 38 | 2 |
| Total. | 31 | 115 | . 4034 | 55.8 | $\ldots$ | 10 | 33 | 20 | 44 | 2 |
| 1912. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts.. | 14 | 69 | . 4079 | 54.9 |  | 8 | 36 | 19 | 3 | 3 |
| Other States.. | 17 | 55 | . 3690 | 56.8 |  |  | 10 | 6 | 36 | 3 |
| Total. | 31 | 124 | . 3906 | 55.7 | ...... | 8 | . 46 | 25 | 39 | 6 |

Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912-Continued.

## BOOT AND SHOE MANUFACTURING-Continued.

BOTTOMING DEPARTMENT-Continued.


Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912-Continued.

BOOT AND SHOE MANUFACTURING-Continued.
BOTTOMING DEPARTMENT-Concluded.


Table II. - AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912-Continued.

## BOOT AND SHOE MANUFACTURING-Continued.

FINISHING DEPARTMENT.


Tabzis III.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1910 TO 1912.

## BOOT AND SHOE MANUFACTURING-Continued.

[The establishments set opposite each bracketed group of years are identical.]
CUTTING DEPARTMENT.

| Occupation, State, and number of establishments. | Year. | Num-bur ofeloyees. | $\begin{aligned} & \text { Aver- } \\ & \text { age } \\ & \text { rate of } \\ & \text { wages } \\ & \text { per } \\ & \text { hour. } \end{aligned}$ | $\left.\begin{array}{\|c\|} \text { Aver- } \\ \text { age } \\ \text { nomi- } \\ \text { nal } \\ \text { full- } \\ \text { time } \\ \text { hours } \\ \text { per } \\ \text { week. } \end{array} \right\rvert\,$ | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Over and and under 51. | $\begin{gathered} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}$ | 54. | $\left\lvert\, \begin{gathered} \text { Over } \\ \text { 54 } \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}\right.$ | $\begin{array}{\|c\|} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{array}$ | 60. |
|  |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: <br> 14 establishments. | $\{1911$ | $58$ | 80. 2984 | $\begin{aligned} & 53.3 \\ & 53.2 \end{aligned}$ | 16 20 | 12 | 21 27 | $\stackrel{12}{9}$ | 2 |  |
| CUTTERS, VAMP aND WHOLE SHOE, HaND, MALE. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 14 establishme | 1910 | 752 | ${ }^{.} 3414$ | 54.3 | 13 | 176 | 323 | 228 | 12 |  |
|  | (1911 | 967 | . 3337 | 54.4 |  | 158 |  |  |  |  |
| 22 establishments | (1912 | 812 | . 3400 | 53.1 | 217 | 100 | 428 | ${ }^{337}$ | 2 | 13 |
| Missouri: |  |  |  |  |  |  |  |  |  |  |
| 6 establishments. | $\left\{\begin{array}{l} 1910 \\ 1911 \end{array}\right.$ | $\begin{aligned} & 193 \\ & 177 \end{aligned}$ | $\begin{array}{r} .2594 \\ .2544 \end{array}$ | $\begin{aligned} & 60.0 \\ & 59.9 \end{aligned}$ |  |  |  |  | 29 | 148 |
| 4 establishments. | 1911 | 177 | . 2844 | 59.8 |  |  |  |  | 29 | 148 |
| New Hampshire: |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 establishments | \{1911 | 30 | . 2258 | 57.4 |  |  |  | 6 | 24 |  |
| 2 establishments. | $\{1911$ | 30 | . 2258 | 57.4 |  |  |  | 6 | 24 |  |
| New York: |  |  |  |  |  |  |  |  |  |  |
| 9 establishments. | $\{1910$ | 205 | .$^{3586}$ | 56.1 |  |  | 71 | 44 | 70 | 20 |
| 9 establishments. | 1911 | 214 | . 3463 | 55.8 |  |  | 81 | 84 | 25 | 24 |
| 11 establishments. | $\{1911$ | ${ }_{2}^{267}$ | . 3395 | 55.5 |  |  | 128 | 90 | 25 | 24 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 establishments. | (1911 | 154 | . 2946 | 59.8 |  |  |  |  | 54 | 100 |
| 5 establishments. | 11911 | 206 | . 2944 | 59.9 |  |  |  |  | 54 | 152 |
| 5 estabishments. | 1912 | 186 | . 3241 | 56.3 |  |  | 112 |  |  | 4 |
| CUTTERS, tamp and whole shoe, machine, male. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 4 establishments. | $\{1910$ | 53 | . 3323 | 55.2 |  |  |  | 51 | 2 | $\ldots$ |
|  | 1911 | 34 | . 3086 | 55.4 |  |  |  | 31 | 3 |  |
| 8 establishments | 1911 | 79 | . 3589 | 54.6 |  |  | 42 | 34 | 3 |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | \{1910 | 28 | . 2690 | 60.0 |  |  |  |  |  | 28 |
| 3 establishments | (1911 | 34 | . 2901 | 59.5 |  |  |  |  | 16 | 18 |
|  | 1911 | 55 | . 2536 | 59.7 |  |  |  |  | 16 | 39 |
| 3 estabishments. | (1912 | 50 | . 2579 | 57.7 |  |  | 19 |  |  | 31 |
| New Hampshire: |  |  |  |  |  |  |  |  |  |  |
| 2 establishments. | 1911 | 54 | . 2944 | 57.1 |  |  |  | 17 | 37 |  |
| 2 establishments. | 1911 | 54 | . 2944 | 57.1 |  |  |  | 17 | 37 |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 establishments. | \{1911 | 33 | . 4110 | 55.1 |  |  | 15 | 18 |  |  |
| 4 establishments. | $\left\{_{1010}^{1911}\right.$ | 35 | $.4007$ | $55.0$ |  | ...... | 17 | 18 |  |  |

Table III.-AVERAGE Rates OF WaGES PER HOUR aND aVERAGE AND OLASSIIIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1910 TO 1912-Continued.

BOOT AND SHOE MANUFACTURING-Continued.
CUTTING DEPARTMENT-Concluded.

| Occupation, State, and number of establishments. | Year. | Num-ber ofem-plogees. | Average rate of wages per. |  | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\left\|\begin{array}{c} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { under } \\ 51 . \end{array}\right\|$ | $\begin{gathered} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}$ | 54. | $\begin{gathered} \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}$ | $\begin{gathered} 57 \\ \text { and } \\ \text { under } \\ \text { 0. } \end{gathered}$ | 60. |
| SHIVERS, UPPER, MACHINE, MALE. |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 7 establishm | 1910 | 58 | \$0.2754 | 54.2 |  |  | 49 | 9 |  |  |
| 7 establishmen | 1911 | 61 | . 3102 | 54.1 |  |  | 52 | 9 |  |  |
| 16 establish | 1911 | 104 | . 2975 | 54.2 |  |  | 92 | 10 | 2 |  |
| SKIVERS, UPPER, MACHINE, FEMALE. Massachusetts: |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 establishments. | 1911 | 78 | . 2057 | 54.6 55.8 | 2 | 24 | 10 | 40 | 2 |  |
| 16 establishments | $\{1911$ | 107 | . 1969 | 54.9 |  | 24 | 12 | 66 | 5 |  |
| Missouri: |  |  |  |  |  |  |  |  |  |  |
| 8 establishments. | $\{1910$ | 58 | . 1591 | 60.0 |  |  |  |  |  | 58 |
| 8 establishments | 1911 | 58 | . 1548 | 59.4 |  |  |  | 6 | 6 | 46 |
| 5 establishments. | $\{1911$ | 52 | . 1551 | 59.9 |  |  |  |  | 6 | 46 |
| Now Hampshire: $\quad \|$1912 31 .1789 54.0 $\cdots \cdots$ |  |  |  |  |  |  |  |  |  |  |
|  | 11910 | 42 | . 1794 | 57.1 |  |  |  | 2 | 40 |  |
| 6 establishments | (1911 | 48 | . 1716 | 57.1 |  |  |  | 4 | 44 |  |
| 6 establishments. | 11911 | 48 | . 1716 | 57.1 |  |  |  | 4 | 44 | ... |
| New York: |  |  |  |  |  |  |  |  |  |  |
| 6 establishments | $\{1910$ | 32 | . 1931 | 56.6 |  | 2 | 13 | 3 |  | 14 |
| 6 establishments | \{1911 | 30 | . 1880 | 56.6 |  | 1 | 13 | 3 |  | 13 |
| 8 establishments | $\{1911$ | 38 | . 1925 | 56.2 |  | 1 | 19 | 5 |  | 13 |
| Ohio: |  |  |  |  |  |  |  |  |  |  |
| 4 establishments............... $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ |  | 20 | . 1794 | 59.9 |  |  |  |  | 6 |  |
|  |  | 21 | . 1670 | 59.8 |  |  |  |  | 7 | 14 |
| establishments | 9911 | 32 | . 1661 | 59.9 |  |  |  |  | 7 | 25 |
|  | 1912 | 35 | . 1696 | \%4. 0 |  |  | 35 |  |  |  |

## SOLE-LEATHER DEPARTMENT.

| CHANNELERS, INSOLE AND OUTSOLE, MALE. |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mressachusetts: |  |  |  |  |  |  |  |  |  |  |
| 11 establishments. | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | 50 52 | $\$ 0.3427$ .3449 | 53.9 54.0 | 4 | 7 | 29 | 10 |  |  |
|  |  |  | . 34 |  |  |  |  | 13 |  |  |
| 17 establishments. | \{1911 | 59 60 | . 3146 | 54.4 |  | 7 | 33 | 18 | 1. |  |
| New York: | $(1912$ | 60 | . 3105 | 54. 4 |  | 5 | 38 | 16 |  | 1 |
| 9 establishments | 11910 | 22 | . 2993 | 56.6 |  |  | 8 | 3 | 6 | 5 |
| 9 establishments | 1911 | 22 | . 3025 | 56.4 |  |  | 7 | 7 | 3 | 5 |
| 10 establishments | $\{1911$ | 26 | . 2980 | 56.1 |  |  | 11 | 7 | 3 | 5 |
| 10 establishments | (1912 | 25 | . 3038 | 54.3 |  |  | 12 | 2 | 1 | 3 |
| CUTTERS, OUTSOLE, MALE. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
|  | $\{1910$ | 60 | . 3023 | 54.6 |  |  | 40 | 17 | 3 |  |
| 10 establishments. | $\{1911$ | 53 | . 3051 | 54.7 |  |  | 32 | 19 | 2 |  |
| 12 establishments. | 1911 | 65 | . 2974 | 54.8 |  |  | 36 | 27 | 2 |  |
| Missouri: 12 estabishments. | 11912 | 65 | . 3071 | 54.7 |  | . | 44 | 17 | 4 |  |
| \% establishments | 1910 | 29 | . 3086 | 59.2 |  |  |  |  | 22 | 7 |
| 3 establishments. | 1911 | 26 | . 3066 | 59.2 |  |  |  |  | 20 | 6 |
| 3 establishments | 1911 | 26 | . 3066 | 59.2 |  |  |  |  | 20 | 6 |
| 3 establishments. | \|1912 | 38 | . 2943 | 59.4 |  |  |  |  | 24 | 14 |

Table III.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1910 TO 1912-Continued.

## BOOT AND SHOE MANUFACTURING-Continued.

FITTING OR STITCHING DEPARTMENT.

| Occupation, State, and number of establishments. | Year. | $\left\|\begin{array}{c} \text { Num- } \\ \text { ber of } \\ \text { emon- } \\ \text { ployes. } \end{array}\right\|$ | $\begin{aligned} & \text { Aver- } \\ & \text { age } \\ & \text { rate of } \\ & \text { wages } \\ & \text { por } \end{aligned}$ |  | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{array}{\|c} \text { Over } \\ 48 \\ \text { and } \\ \text { under } \\ 51 . \end{array}$ | $\begin{array}{\|c\|} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{array}$ | 54. | $\left\lvert\, \begin{gathered} \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}\right.$ | $\begin{gathered} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}$ | 60. |
| backstay stitcher |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: <br> 14 establishments. | 11910 | 118 | \$0.1968 | 54.7 |  |  |  | 61 |  |  |
|  | 1911 | 101 | . 2037 | 54.7 | 1 | 21 | 26 | 47 | 6 |  |
| 21 establishments. | $\{1911$ | 154 | . 2109 | 54.8 |  | 21 | 52 | 70 | 11 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 8 establishments. | 1910 | 30 | . 1657 | 58.8 |  |  |  | 7 |  | 23 |
|  | 11911 | 24 | . 1631 | 59.4 |  |  |  | 2 | 4 | 18 |
| 8 establishments. | $¢_{1912}$ | $\begin{aligned} & 24 \\ & 25 \end{aligned}$ | $\begin{aligned} & .1631 \\ & .1708 \end{aligned}$ | 59.4 54.0 |  |  |  | 2 | 4 | 18 |
| New Hampshire: |  |  |  |  |  |  |  |  |  |  |
| 6 establishments. | $\left\{\begin{array}{l} 1910 \\ 1911 \end{array}\right.$ | $\begin{aligned} & 54 \\ & 63 \end{aligned}$ | . 17745 | 57.1 57.0 | . |  |  | 5 8 | 49 55 | $\ldots$ |
| 6 establishments. | $\{1911$ | 63 | . 1745 | 57.0 |  |  |  | 8 | 55 |  |
| New York: |  |  |  |  |  |  |  |  |  |  |
| 6 establishments. | 1910 | 32 | . 1577 | 56.9 |  | 4 | 9 | 2 |  | 13 |
|  | (1911 | 37 | . 1682 | 56.6 |  | 7 | 9 | 2 | 4 | 15 |
| 8 establishments. | $\{1911$ | 43 | . 1718 | 56.1 |  | 7 | 16 | 3 | 2 | 15 |
| Ohio: |  |  |  |  |  |  |  |  |  |  |
| 4 establishments. | 1910 | 24 | . 1423 | 59.9 |  |  |  |  | 7 | 17 |
|  | 1911 | 23 | . 1492 | 59.8 |  |  |  |  | 8 | 15 |
| 5 establishments. | 1911 | ${ }_{21}$ | . 1539 | 59.9 |  |  |  |  | 8 | 23 |
| buttonhole makers, female. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 13 establishments. | 1911 | 38 | . 2102 | 54.8 |  | 2 | 19 | 14 | 3 |  |
| 13 establishments | 1912 | 60 | . 2113 | 53.9 | $\ldots$ | 17 | 43 |  |  |  |
| Closers-on, female. Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: 1910 75 .2112 54.4 1 23 15 35 |  |  |  |  |  |  |  |  |  |  |
| 11 establishments | 1911 | 78 | . 2103 | 54.8 | 1 | 5 | 16 | 55 | 1 |  |
| 18 establishments | 1911 | 107 | . 2107 | 54.8 |  | 5 | 29 | 71 | 2 |  |
| Missouri: |  |  |  |  |  |  |  |  |  |  |
| 7 establishmen | 1910 | 44 | . 1595 | 60.0 |  |  |  |  |  | 44 |
|  | 1911 | 44 | . 1628 | 59.7 |  |  |  |  | 12 | 32 |
| 7 establishments. | 1911 | 44 | . 1628 | 59.7 |  |  |  |  | 12 | 32 |
|  |  |  |  |  |  |  |  |  |  |  |
| 6 establishments. | 1910 | 27 | . 1830 | 57.0 |  |  |  |  |  |  |
|  | 1911 | 29 | . 1675 | 56.9 |  |  |  | 6 | 23 |  |
| 6 establishments. | 1911 | 29 | . 1675 | 56.9 |  |  |  | 6 | 23 |  |
|  | 1912 | 24 | . 1879 | 57.5 |  |  |  |  | 24 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 8 establishments. | $\left\{\begin{array}{l} 1910 \\ 1911 \end{array}\right.$ | $\begin{aligned} & 44 \\ & 47 \end{aligned}$ | $\begin{array}{r} .1747 \\ .1667 \end{array}$ | $\begin{aligned} & 56.5 \\ & 56.4 \end{aligned}$ |  |  | $\begin{aligned} & 18 \\ & 19 \end{aligned}$ | $\begin{gathered} 4 \\ 12 \end{gathered}$ | $\stackrel{12}{3}$ | 13 |
| 11 establishments. | 1911 | 63 | . 1732 | 55.9 |  |  | 32 | 13 | 5 | 13 |
|  |  |  |  |  |  |  |  |  |  |  |
| 3 establishments | 1910 |  | . 1670 | 59.9 |  |  |  |  |  | 16 |
|  | 1911 | 22 | . 1601 | 59.9 |  |  |  |  | 6 | 16 |
|  | 1911 | 35 | . 1573 | 59.9 |  |  |  |  | 6 | 29 |
| RASER | 1912 | 28 | . 1774 | 54.0 |  |  | 28 |  |  |  |

Table III.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME MOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1910 TO 1912-Continued.

## BOOT AND SHOE MANUFACTURING-Continued.

PITTING OR STITCHING DEPARTMENT-Continued.

| Occupation, State, and number of establishments. | Year. | Number of employees. | Arerage rate of wages per hour. | Aver age nominal fulltime hours per week. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{array}{\|c} \text { Over } \\ 48 \\ \text { and } \\ \text { under } \\ 51 . \end{array}$ | 51 and under 54. | 54. | $\begin{gathered} \text { Over } \\ 54 \\ \text { and } \\ \text { rimder } \\ 57 . \end{gathered}$ | $\begin{gathered} 57 \\ \text { and } \\ \text { ander } \\ 60 . \end{gathered}$ | 60. |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14 establishments. | $\{1910$ | 211 | \$0. 1870 | 54.3 | 2 | 80 | 43 | 81 | 5 |  |
| 14 establishments. | (1911 | 199 | 1881 | 54.3 | 3 | 77 | 43 | 71 | 5 |  |
| 22 establishments. | $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ | 269 | . 1932 | 54.4 |  | 77 | 89 | 95 | 8 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 7 establishments. | $\{1910$ | 75 | . 1262 | 60.0 |  |  |  |  |  | 75 |
| 7 establishments. | (1911 | 71 | . 1275 | 59.2 |  |  |  | 8 | 20 | 43 |
| 7 establishments. | $\{1911$ | 66 | . 1267 | 59.7 |  |  |  | .- | 20 | 46 |
| New Hampshire: $\quad 10$ |  |  |  |  |  |  |  |  |  |  |
| 6 establishments | $\{1910$ | 60 | . 1489 | 56.8 |  |  |  | 14 | 46 |  |
| 6 establishments | 1911 | 46 | . 1539 | 57.0 |  |  |  | 8 | 38 | . |
| 6 establishments. | $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ | 46 | . 1539 | 57.0 |  |  |  | 8 | 38 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 9 establishments. | $\{1910$ | 93 | . 1693 | 56.5 |  | 8 | 29 | 8 | 22 | 26 |
| 9 establishments. | 11911 | 91 | . 1615 | 56.7 |  |  | 27 | 24 | 5 | 31 |
| 11 establishments. | $\{1911$ | 109 | . 1644 | 56.3 |  | 4 | 42 | 27 | 5 | 31 |
|  | 1912 | 95 | . 1661 | 54.9 | 8 | 21 | 34 | 2 | 3 | 27 |
| 4 establishments | $\{1910$ | 30 | . 1387 | 59.8 |  |  |  |  | 13 | 17 |
|  | 1911 | 37 | . 1442 | 59.7 |  |  |  |  | 22 | 15 |
| 5 establishments. | $\{1911$ | 58 | . 1480 | 59.8 |  |  |  |  | 22 | 36 |
|  | \{1912 | 71 | . 1738 | 54.0 |  |  | 71 |  |  |  |
| TIP STITCHERS, FEMALE. Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 15 establishments. | $\{1911$ | 66 | . 2298 | 54.4 |  | 10 | 35 | 19 | 2 |  |
|  | (1912 | 69 | . 2383 | 54.0 |  | 12 | 54 | 3 |  |  |
| TOPSTITCHERS OR UNDERTRIMMERS, FEMALE. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 15 establishments | $\{1910$ | 254 | . 2067 | 54.6 | 3 | 64 | 79 | 93 | 15 |  |
| 15 establishments | (1911 | 252 | . 2196 | 54.5 | 4 | 63 | 80 | 94 | 11 | -.... |
| 22 establishments. | $\{1911$ | 344 | . 2202 | 54.6 |  | 63 | 133 | 131 | 17 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 8 establishments | f1910 | 116 | . 1774 | 60.0 |  |  |  |  |  | 116 |
| 8 establishments. | 1911 | 111 | . 1718 | 59.3 |  |  |  | 12 | 23 | 76 |
| 8 establishments. | $\{1911$ | 111 | . 1718 | 59.3 |  |  |  | 12 | 23 | 76 |
| Nestablishments. | 1912 | 88 | . 1786 | 54.0 |  |  | 88 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 6 establishments. | $\{1910$ | 80 | . 1690 | 57.0 |  |  |  | 9 | 71 |  |
|  | 1911 | 92 | . 1753 | 56.9 |  |  |  | 14 | 78 |  |
| 6 establishments. | $\{1911$ | 92 | . 1753 | 56.9 |  |  |  | 14 | 78 |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 establishments. | $\{1911$ | ${ }_{6}^{65}$ | . 2078 | 57.2 |  |  | 26 | 4 | 9 | 28 |
| 11 establishments. | $\{1911$ | 88 | . 2084 | 56.5 |  |  | 47 | 4 | 9 | 28 |
|  |  | 114 | . 2097 | 54.9 | 5 | 18 | 61 | 1 | 2 | 27 |
| 4 establishments | 1910 | 56 | . 1639 | 69.8 |  |  |  |  | 19 | 37 |
| 4 establishments. | (1911 | 66 | . 1566 | 59.8 |  |  |  |  | 26 | 40 |
| 5 establishments. | $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ | 86 | 1588 .1854 | 59.8 54.0 |  |  | 78 |  | 26 | 60 |

Table ITI.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1910 TO 1912—Continued.

## BOOT AND SHOE MANUFACTURING-Continued.

FITTING OR STITCHING DEPARTMENT-Concluded.

| Occupation, State, and number of establishments. | Y ear. | $\left\|\begin{array}{c} \text { Num- } \\ \text { ber of } \\ \text { em- } \\ \text { ployees. } \end{array}\right\|$ | $\begin{aligned} & \text { Aver } \\ & \text { age } \\ & \text { rate of } \\ & \text { wages } \\ & \text { per } \\ & \text { hour. } \end{aligned}$ |  | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\left\lvert\, \begin{gathered} \left.\begin{array}{c} 0 \text { ver } \\ 48 \\ \text { and } \\ \text { under } \\ 51 . \end{array} \right\rvert\, \end{gathered}\right.$ | $\begin{gathered} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}$ | 54. | $\begin{array}{\|c} \hline \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{array}$ | $\begin{gathered} \left.\begin{array}{c} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{array} \right\rvert\, \end{gathered}$ | 60. |
| VAMPERS, MALE. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: <br> 10 establishments. | 1910 | 134 | \$0.3152 | 54. 1 |  | 48 | 61 | 25 |  |  |
|  | 1911 | 110 | . 3259 | 54.2 |  | 21 | 64 | 25 |  |  |
| 17 establishments. | 1911 | ${ }_{277}^{186}$ | . 3388 | 54.2 |  | 21 | 133 | $\stackrel{29}{29}$ | 3 |  |
| New Hampshire: |  |  |  |  |  |  |  |  |  |  |
| 5 establishments | 1910 | 33 | . 2365 | 56.6 |  |  |  | 7 | 26 |  |
|  | (1911 | 47 | . 2482 | 56.7 | - |  |  | 9 | 38 | ..... |
| 6 establishments. | $\{1911$ | 47 | . 2482 | 56.7 |  |  |  | 9 | 38 |  |
| New York: |  |  |  |  |  |  |  |  |  |  |
| 5 establishments | $\{1910$ | 35 | . 3019 | 56.2 |  |  |  | 16 | 19 |  |
| 5 establishments | 1911 | 32 | . 3283 | 55.6 |  |  |  | 30 | 2 |  |
| 8 establishments. | $\mid\{1911$ | 36 38 | $\begin{array}{r} .3238 \\ .3325 \end{array}$ | $\begin{aligned} & 55.6 \\ & 54.6 \end{aligned}$ |  | 16 | 4 | 34 7 | ${ }_{11}^{2}$ |  |
| vampers, female. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 15 establishments. | $\{1910$ | 287 299 | .2681 .2759 | 54.5 54.7 | ${ }_{5}^{6}$ | 39 45 | 94 106 | 141 | 7 9 | $\cdots$ |
| 22 establishments | $\{1911$ | 385 | . 2759 | 54.8 |  | 45 | 133 | 191 | 16 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 8 establishments. | 1910 | 120 | . 2226 | 60.0 |  |  |  |  |  | 120 |
| 8 establishments. | 11911 | 127 | . 2403 | 59.3 |  |  |  | 15 | 18 | 94 |
| 8 establishments. | $\{1911$ | 127 | . 2403 | 59.3 |  |  |  | 15 | 18 | 94 |
| New Hampshire: |  |  |  |  |  |  |  |  |  |  |
| 6 establishments. | $\{1910$ | 117 | . 2242 | 57.1 |  |  |  | 10 | 107 |  |
|  | $\{1911$ | 134 | . 2120 | 57.0 |  |  |  | 14 | 120 | ...... |
| 6 establishments. | $\{1911$ | 134 | . 2120 | 57.0 |  |  |  | 14 | 120 | .... |
|  |  |  |  |  |  |  |  |  |  |  |
| 6 establishments. | $\{1910$ | 94 | . 2448 | 56.4 | 14 |  | 27 | 5 | 10 | 38 |
| 6 establishments. | 1911 | 104 | . 2378 | 56.0 | 21 |  | 29 | 5 | 11 | 38 |
| 9 establishments. | $\{1911$ | 130 | . 2349 | 55.6 | 21 |  | 55 | 5 | 11 | 38 |
|  |  |  |  |  |  |  |  |  |  |  |
| 4 establishments. | 1910 | 74 | . 2035 | 59.8 |  |  |  |  | 27 |  |
|  | 1911 | 82 | . 1895 | 59.8 |  |  |  |  | 35 | 47 |
| 5 establishments. | 1911 | 140 | . 2033 | 59.9 |  |  |  |  | 35 | 105 |
|  | (1912 | 118 | . 2174 | 54.0 |  |  | 118 |  |  |  |

## LASTING DEPARTMENT.

| ASSEMBLERS, FOR PULLING-OVER Machine, male. |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 9 establishments | $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ | 148 | $\$ 0.2932$ .2807 | 54.6 53.6 | $\cdots$ |  | 78 78 | 68 36 | 2 | 3 |

Table III.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMİNAL FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1910 TO 1912-Continued.

## BOOT AND SHOE MANUFACTURING-Continued.

LASTING DEPARTMENT-Continued.

| Occupation, State, and number of establishments. | Year. | Number of ployees. |  Aver- <br> Aver- age <br> age  <br> age  <br> rate of nal <br> wages full- <br> per time <br> hour. hours <br>  peek. <br>   <br>   |  | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\left\|\begin{array}{c} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { under } \\ 51 . \end{array}\right\|$ | $\begin{gathered} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}$ | 54. | $\left\lvert\, \begin{gathered} \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}\right.$ | $\begin{gathered} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}$ | 60. |
| d-machine operators, male. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 7 establishme | \{1910 | 207 | \$0.3429 | 54.2 |  | 15 | 161 | 31 |  |  |
|  | (1911 | 226 | . 3633 | 54.2 |  | 26 | 165 | 35 |  |  |
| 14 establish | 1911 | 331 | . 3523 | 54.3 |  | 26 | 246 | 46 | 13 |  |
|  | 1912 | 470 | . 3054 | 54.3 |  | 58 |  |  |  | 13 |
| Missouri: |  |  |  |  |  |  |  |  |  |  |
| 7 establishments. | $\{1910$ | $\stackrel{41}{5}$ | . 2924 | ${ }_{58}^{60.0}$ |  |  |  | 13 |  | 41 |
| 6 establishments. | 1911 | 50 | . 3068 | 58.7 |  |  |  | 13 |  | 7 |
| New Hampshire: | 1912 | 54 | . 2778 | 59.6 |  |  |  |  | 19 | 35 |
|  |  |  |  |  |  |  |  |  |  |  |
| 3 establishments | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | ${ }_{72}^{67}$ | ${ }_{-2465}$ | 56.9 |  |  |  | 14 | $\begin{aligned} & 62 \\ & 58 \end{aligned}$ |  |
|  |  |  |  |  |  |  |  |  |  | ...... |
| 3 establishments. | $\{1911$ | 72 | . 2465 | 56.6 |  |  |  | 14 | 58 |  |
| New York: | 1912 | 91 | . 2403 | 57.2 |  |  |  |  | 91 |  |
| 5 establishments | 1910 | 73 | . 3286 | 57.9 |  |  |  |  | 45 | 19 |
|  | 1911 | 66 | . 3454 | 57.0 |  |  | 4 | 39 | 8 | 15 |
| 9 establishments. | 1911 | 96 | . 3442 | 56.5 |  |  | 14 | 52 | 15 | 15 |
| Ohio: | 1912 | 131 | . 3458 | 54.7 |  | 41 | 46 | 20 | 11 | 13 |
|  | 1910 |  | . 2983 | 59.8 |  |  |  |  |  |  |
| 3 establishments | $\{1911$ | 47 | . 3057 | 59.8 |  |  |  |  | 17 | 30 |
| 5 establishments. | 1911 | 72 | . 2977 | 59.9 |  |  |  |  | 17 | 55 |
|  | (1912 | 87 | . 3080 | 56.6 |  |  | 50 |  |  | 37 |
| hand-method lasting machine operators, male. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 8 establishmen | $\{1910$ | 114 | . 3481 | 55.3 | 4 |  | 19 | 78 | 13 |  |
|  | 11911 | 118 | . 3697 | 55.2 | 5 |  | 22 | 78 | 13 |  |
| 12 establishments | 1911 | 204 | . 3682 | 55.0 |  |  | 76 | 115 | 13 |  |
|  | (1912 | 221 | . 3473 | 54.1 | 26 |  | 116 | 72 | 7 |  |
| Missouri: |  |  |  |  |  |  |  |  |  |  |
| 8 establishments | $\{1910$ | 75 | . 2746 | 60.0 |  |  |  |  |  | 75 |
|  | 1911 | 88 | . 2871 | 59.6 |  |  |  | 3 | 18 | 67 |
|  | 1911 | 85 | . 2884 | 59.8 |  |  |  |  | 18 | 67 |
|  | (1912 | 73 | . 2808 | 58.8 |  |  | 14 |  |  | 59 |
| ${ }_{5}$ 5 establishmen | $\{1910$ | 58 | - 2521 | 57.1 |  |  |  | 10 | 48 |  |
|  | \1911 | 59 | . 2222 | 57.2 |  |  |  | 10 | 49 |  |
| 4 establishments. | $\int 1911$ | 59 | . 2222 | 57.2 |  |  |  | 10 | 49 |  |
| New York: | 1912 | 60 | . 2633 | 57.5 |  |  |  |  | 60 |  |
| 3 establishments. | 11910 | 26 | . 3427 | 55.4 |  |  | 20 |  |  | ${ }_{8}^{6}$ |
|  | 11911 | 31 | . 3478 | 55.5 |  |  | 23 |  |  | 8 |
| 3 establishments. | 1911 | 35 | . 3226 | 55.6 |  |  | 18 | 9 |  | 8 |
|  | (1912 | 46 | . 3529 | 55.9 |  |  | 25 | 8 |  | 13 |
| Ohio:$\quad 3$ establishments | . 1910 | 21 | . 3239 | 59.9 |  |  |  |  | 6 |  |
|  | 1911 | 15 | . 2960 | 59.8 |  |  |  |  | 5 | 10 |
| 5 establishments | 1911 | 48 | . 2870 | 59.9 |  |  |  |  | 5 | 43 |
|  | (1912 | 42 | . 3476 | 55.9 |  |  | 29 |  |  | 13 |

Table III.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIEI NOMINAL FULI-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1910 TO 1912-Continued.

BOOT AND SHOE MANUFACTURING-Continued.
LASTING DEPARTMENT-Concluded.

| Occupation, State, and number of establishments. | Year. | Number of employees. | Average rate of wages per hour. | Aver- <br> age <br> nominal fulltime hours per week. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{gathered} \text { Over } \\ 48 \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}$ | 51 and under 54. | 54. | Over 54 and under 57. | 57 and under 60. | 60. |
| pullers-over, hand, male. |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | \{1911 | 333 | .3513 | 54.5 | 7. | 27 | 183 | 99 | 17 |  |
| 12 establishments. | $\{1911$ | 359 | . 3483 | 54.5 |  | 27 | 216 | 99 | 17 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 5 establishments | $\{1910$ | 57 | . 3074 | 60.0 |  |  |  |  |  | 57 |
| 5 estabishments. | (1911 | 53 | . 3216 | 57.5 |  |  |  | 27 |  | 26 |
| 4 establishments. | $\{1911$ | 47 | . 3206 | 57.1 |  |  |  | 27 |  | 20 |
|  |  |  |  |  |  |  |  |  |  |  |
| New Hampshire. | ¢1910 | 152 | . 2244 | 56.8 |  |  |  | 18 | 134 |  |
| 5 establishments. | \{1911 | 125 | . 2235 | 57.1 |  |  |  | 1 | 124 |  |
| 2 establishments | $\{1911$ | 65 | . 2495 | 57.0 |  |  |  |  | 65 | .... |
|  | (1912 | 70 | . 2620 | 57.0 |  |  |  |  | 70 |  |
| 4 establishments | ¢1910 | 42 | . 3233 | 57.7 |  |  | 2 | 10 | 30 |  |
| 4 estabishments. | (1911 | 45 | . 3268 | 57.9 |  |  | 2 | 9 | 34 |  |
| 7 establishments. | $\{1911$ | 76 | . 3166 | 56.4 |  |  | 28 | 14 | 34 |  |
|  |  | 73 | . 3355 | 54.2 |  |  | 59 | 12 | 2 |  |
| 2 establishments. | $\{1910$ | 70 | . 2594 | 59.9 |  |  |  |  | 10 | 60 |
| 2 establishments. | \{1911 | 79 | . 2830 | 59.9 |  |  |  |  | 13 | 66 |
| 5 establishments. | $\{1911$ | 133 | . 2869 | 60.0 |  |  |  |  | 13 | 120 |
| 5 estabishments. | $\{1912$ | 65 | . 3232 | 58.8 |  |  | 13 |  |  | 52 |
| PULLERS-OVER, MACHINE, MALE. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 7 establishments. | $\{1910$ | 75 | . 3264 | 54.7 |  |  | 41 | 33 | 1 |  |
| 7 estabishments. | $\{1911$ | 105 | . 3311 | 54.5 |  |  | 65 | 39 | 1 | .... |
| 13 establishments. | \{1911 | 150 | . 3499 | 54.5 |  |  | 93 | 54 | 3 |  |
| Missouri: |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 establishments. | $\{1910$ | 33 28 | . 3719 | 60.0 59.6 |  |  |  |  |  | 33 |
|  | 1911 | 28 | . 2820 | 59.6 |  |  |  | 1 | 6 | 21 |
| 7 establishments. | 1911 | 28 | . 2820 | 59.6 |  |  |  | 1 | 6 | 21 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 establishments. | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | 73 65 | .3400 .3548 | 57.4 56.0 |  |  | 9 9 | 47 | 34 | 10 6 |
| 6 establishments... | $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ | 75 60 | .3476 .3594 | 55.8 54.8 |  | 34 | 17 | 52 | 2 | 6 12 |

## BOTTOMING DEPARTMENT.



Table III.-AYERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1910 TO 1912-Continued.

BOOT AND SHOE MANUFACTURING-Continued, BOTTOMING DEPARTMENT-Continued.

| Occupation, State, and number of establishments. | Year. | Num-ber ofeloy-es.ployes. | Aver-agerate ofwagesperhour. | $\begin{gathered} \text { Aver- } \\ \text { age } \\ \text { nomi- } \\ \text { nal } \\ \text { full- } \\ \text { time } \\ \text { hours } \\ \text { per } \\ \text { week. } \end{gathered}$ | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{gathered} \text { Over } \\ 48 \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}$ | $\begin{gathered} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}$ | 54. | $\left\lvert\, \begin{gathered} \text { Over } \\ \text { 54 } \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}\right.$ | $\begin{gathered} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}$ | 60. |
| edae setters, male. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 15 establishments | $\{1910$ | 238 | \$0.4165 | 54.4 | 3 | 72 | 79 | 75 | 9 |  |
|  | \{1911 | 233 | . 4211 | 54.3 | 4 | 60 | 92 | 70 | 7 |  |
| 22 establishments. | $\{1911$ | 324 | . 4209 | 54.4 |  | 60 | 158 | 90 | 16 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 8 establishments | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | 54 63 | .3605 .3568 | 59.2 59.3 |  |  |  | 9 | 8 | 45 48 |
|  | $\{1911$ | 56 | . 3483 | 59.9 |  |  |  |  | 8 | 48 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 establishments. | $\left\{\begin{array}{l} 1910 \\ 1911 \end{array}\right.$ | $\begin{aligned} & 67 \\ & 74 \end{aligned}$ | $\begin{array}{r} .2877 \\ .2758 \end{array}$ | $\begin{aligned} & 56.9 \\ & 56.9 \end{aligned}$ |  |  |  | 10 | 58 <br> 64 |  |
| 6 establishments. | $\{1911$ | 74 | . 2758 | 56.9 |  |  |  | 10 | 64 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 7 establishments | 1910 | 64 | . 3726 | 57.2 |  |  | 15 | 7 | 26 | 16 |
| 7 establishments. | \{1911 | 64 | . 4173 | 56.6 |  |  | 18 | 23 | 7 | 16 |
| 9 establishments. | $\{1911$ | 78 | . 4086 | 56.2 |  |  | 30 | 20 | 7 | 16 |
| Ohio: ${ }^{\text {O }}$ |  |  |  |  |  |  |  |  |  |  |
| 4 establishments. | $\{1910$ | 35 | . 3542 | 59.8 |  |  |  |  | 11 | 24 |
| 4 establishments. | (1911 | 36 | . 3410 | 59.8 |  |  |  |  | 11 | 25 |
| 5 establishments | 1911 | 59 | . 3297 | 59.9 |  |  |  |  | 11 | 48 |
|  | 1912 | 62 | . 3614 | 57.1 |  |  | 30 |  |  | 32 |
| edge trimmers, male. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 15 establishments. | $\{1910$ | 255 | . 4038 | 54.4 | 3 | 58 | 98 | 85 | 11 |  |
| 15 establishments. | 1911 | 268 | . 4174 | 54.4 | 4 | 35 | 115 | 86 | 8 |  |
| 22 establishme | 1911 | 367 | . 4179 | 54.5 |  | 50 | 184 | 113 | 15 |  |
| Missouri: |  |  |  |  |  |  |  |  |  |  |
| 8 establishments | 1910 | 61 | .3495 | 60.0 |  |  |  |  |  | 61 |
| 8 establishments. | 1911 | 61 | . 3440 | 59.3 |  |  |  | 7 | 8 | 46 |
| 7 establishments. | 1911 | 54 | . 3311 | 59.9 |  |  |  |  | 8 |  |
| New Hampshire: ${ }_{\text {N }}$ |  |  |  |  |  |  |  |  |  |  |
| 6 establishments. | f1910 | 70 | . 3155 | 56.8 |  |  |  | 12 | 58 |  |
| 6 establishments. | 1911 | 84 | . 2997 | 56.8 |  |  |  | 16 | 68 |  |
|  | 1911 | 84 | . 2997 | 56.8 |  |  |  | 16 | 68 |  |
| 6 estabishments. | 1912 | 97 | . 3283 | 57.4 |  |  |  |  | 97 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 8 establishments. | $\left\{\begin{array}{l} 1910 \\ 1911 \end{array}\right.$ | 78 | $\begin{array}{r} .4342 \\ .4252 \end{array}$ | 57.0 |  |  | 22 | 30 | 23 | $\begin{aligned} & 19 \\ & 10 \end{aligned}$ |
|  | 1911 | 91 | . 4202 | 56.1 |  |  | 34 | 31 | 7 |  |
|  |  |  |  |  |  |  |  |  | 5 | 19 |
|  |  |  |  |  |  |  |  |  |  |  |
| 4 establishme | $\left\{\begin{array}{l} 1910 \\ 1911 \end{array}\right.$ | $\begin{aligned} & 39 \\ & 38 \end{aligned}$ | $\begin{aligned} & .3349 \\ & .3778 \end{aligned}$ | $\begin{aligned} & 59.9 \\ & 59.9 \end{aligned}$ |  |  |  |  | $11^{9}$ | $\begin{aligned} & 30 \\ & 27 \end{aligned}$ |
| 5 establishments. | 1911 | 52 | . 3819 | 59.9 |  |  |  |  | 11 |  |
|  | 1912 | 53 | . 3917 | 57.3 |  |  | 2 |  |  |  |

Table III.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1910 TO 1912-Continued.

BOOT AND SHOE MANUFACTURING-Continued.
BOTTOMING DEPARTMENT-Continued.

| Occupation, State, and number of establishments. | Year. | Number of ployees | Aver-agerate ofwagesperhour. | $\begin{gathered} \text { Aver- } \\ \text { age } \\ \text { nomi- } \\ \text { nal } \\ \text { full- } \\ \text { time } \\ \text { hours } \\ \text { peer } \\ \text { week. } \end{gathered}$ | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{gathered} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}$ | $\begin{array}{\|c} \text { 51 } \\ \text { and } \\ \text { under } \\ 54 . \end{array}$ | 54. | $\begin{gathered} \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}$ | $\begin{array}{\|c} 57 \\ \text { and } \\ \text { nimder } \\ 60 . \end{array}$ | 60. |
| goodyear stitchers, male. Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 14 establishments. | 1910 | 158 | \$0. 4012 | 54.4 | 3 | 21 | 80 | 49 | 5 |  |
| 14 establishments. | 1911 | 178 | . 4121 | 54, 3 | 3 | 28 | 95 | 49 | 3 |  |
| 20 establishments | 1911 | 258 | . 4101 | 54.4 |  | 28 | 165 | 56 | 9 |  |
| Missouri: $\quad 10$ |  | 245 | . 3989 | 54.4 |  | 21 | 166 | 47 | 5 | 6 |
|  | 1910 | 34 | . 3232 | 60.0 |  |  |  |  |  | 34 |
| 6 establishments. | (1911 | 33 | . 3705 | 59.1 |  |  |  | 6 |  | 27 |
| 6 establishments | 1911 | 33 | . 3705 | 59.1 |  |  |  | 6 |  | 27 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | \{1911 | 58 | . 2650 | 56.5 |  |  |  | 14 | 44 |  |
| 3 establishments | $\{1911$ | 58 | . 2650 | 56.5 |  |  | . | 14 | 44 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 6 establishments | 1910 | 39 | . 4259 | 57.6 |  |  |  | 6 |  |  |
|  | 11911 | 45 | . 4211 | 57.3 |  |  | 6 | 18 | 8 | 13 |
| 8 establishments. | $\{1911$ | 55 | . 4064 | 56.7 |  |  | 14 | 20 | 8 | 13 |
|  |  |  |  |  |  |  |  |  |  |  |
| 4 establishments | 1910 | 25 | . 3026 | 59.9 |  |  |  |  |  |  |
| 4 establishments. | [1911 | 27 | . 3488 | 59.8 |  |  |  |  | 9 | 18 |
| 5 establishments. | $\{1911$ | 39 | . 3494 | 59.9 |  |  |  |  | 9 | 30 |
| goodyear welters, male. |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 establishments. | \{1911 | 115 | . 5199 | 54.2 | 2 | 27 | 62 | 21 | 3 |  |
| 18 establishments. | $\{1911$ | 179 | . 4989 | 54.3 |  | 27 | 119 | 28 | 5 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 6 establishments. | 1910 | 24 | . 4583 | 60.0 |  |  |  |  |  |  |
| 6 establishments. | 1911 | 30 | . 4696 | 59.2 |  |  |  | 5 |  | 25 |
| 6 establishments. | 1911 | 30 | .4696 | 59.2 |  |  |  | 5 |  | 25 |
|  |  |  |  |  |  |  |  |  |  |  |
| 3 establishments | 1910 | 31 | . 3335 | 56.5 |  |  |  | 8 | 23 |  |
|  | (1911 | 33 | . 3313 | 56.5 |  |  |  | 9 | 24 |  |
| 3 establishments | 1911 | 33 | . 3313 | 56.5 |  |  |  | 9 | 24 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 7 establishments. | 1910 | 40 | . 4075 | 56.3 |  |  | 15 |  |  |  |
|  | $\{1911$ | 41 | . 4497 | 56.1 |  |  | 14 | 16 | 5 | 6 |
| 9 establishments. | 1911 | 45 | . 4492 | 56.1 |  |  | 11 | 23 | 5 | 6 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 establishment | 1910 | 22 | . 3773 | 59.9 |  |  |  |  |  |  |
|  | 1911 | 20 | . 3875 | 59.9 |  |  |  |  | 6 | 14 |
| 5 establishments. | 1911 | 32 | . 3691 | 59.9 |  |  |  |  | 6 | 26 |
|  | \{1912 | 35 | . 3823 | 56.9 |  |  | 18 |  |  | 17 |
| heel breasters, male. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 16 establishments. | $\{1911$ | $\begin{aligned} & 38 \\ & 44 \end{aligned}$ | .3353 .3196 | $\begin{aligned} & 54.8 \\ & 54.7 \end{aligned}$ |  | ${ }_{8}^{2}$ | $\begin{aligned} & 18 \\ & 19 \end{aligned}$ | $\begin{aligned} & 15 \\ & 14 \end{aligned}$ | 3 2 | 1 |

Table III.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND QLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1910 TO 1912-Continued.

BOOT AND SHOE MANUFACTURING-Continued.
BOTTOMING DEPARTMENT-Concluded.

| Occupation, State, and number of establishments. | Year. | Number of employees. | Arerage rate of wages per hour. | Average nominal fulltime hours per week. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{gathered} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}$ | $\left\lvert\, \begin{gathered} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}\right.$ | 54. | $\begin{gathered} \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}$ | $\begin{gathered} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}$ | 60. |
| heel burnishers, male. <br> Massachusetts: <br> 16 establishments . $\qquad$ | $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ | $\begin{aligned} & 66 \\ & 69 \end{aligned}$ | $\begin{array}{r} \$ 0.3298 \\ .3357 \end{array}$ | $\begin{aligned} & 54.6 \\ & 54.7 \end{aligned}$ |  | $\begin{aligned} & 2 \\ & 5 \end{aligned}$ | $\begin{aligned} & 38 \\ & 39 \end{aligned}$ | $\begin{aligned} & 23 \\ & 21 \end{aligned}$ | $\begin{aligned} & 3 \\ & 2 \end{aligned}$ |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Heelers, Male. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 14 establishments. | $\{1911$ | 65 | . 4435 | 54.7 |  | 10 | 29 | 20 | 6 |  |
| 14 establishments. | (1912 | 69 | .4079 | 54.9 |  | 8 | 36 | 19 | 3 | 3 |
| HEEL SCOURERS, MALE. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 15 establishments. | \{1911 | 76 | . 3060 | 54.7 |  | 7 | 35 | 25 | 6 |  |
| 15 establishments. | 1912 | 89 | . 3134 | 54.5 |  | 15 | 50 | 19 | 3 | 2 |
| - heel sluggers, male. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 15 establishments. | $\{1912$ | 44 | .3401 .3241 | 54.8 |  | . | 27 | 16 | 2 | - ${ }_{2}$ |
| HEEL TRIMMERS OR SHAVERS, MALE. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 15 establishments. | 1910 | 68 | . 4505 | 54.5 | 1 | 17 | 20 | 27 | 3 |  |
| 15 estabishments. | (1911 | 68 | . 4655 | 54.5 | 1 | 16 | 22 | 26 | 3 |  |
|  | \{1911 | 101 | . 4533 | 54.7 |  | 16 | 37 | 42 | 6 |  |
| 22 establishments. | $\{1912$ | 89 | . 4417 | 54.7 |  | 11 | 44 | 28 | 3 | 3 |
| New York: |  |  |  |  |  |  |  |  |  |  |
| 8 establishments. | 1910 | 27 | . 4890 | 56.6 |  |  | 6 | 6 | 11 | 4 |
| 8 estabishments. | (1911 | 25 | . 4750 | 56.1 |  |  | 6 | 13 | 3 | 3 |
|  | \{1911 | 29 | . 4816 |  |  |  | 9 | 14 | 3 | 3 |
| 10 establishments. | $\{1912$ | 31 | .4705 | 55.0 |  | 7 | 13 | 4 | 3 | 4 |
| Levelers, male. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 16 establishments | $\{1911$ | 54 | . 3353 | 54.6 |  | 7 | 27 | 16 | 4 |  |
| 16 establishments | $\{1912$ | 53 | . 3383 | 54.8 |  | 7 | 26 | 16 | 2 | 2 |
| mCKAy Sewers, male. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
|  | $\{1910$ | 33 | . 3272 | 54.9 | 1 | 10 |  | 23 | 4 | ...... |
| 7 establishments. | 1911 | 44 | . 3485 | 54.7 | 1 | 13 |  | 27 | 3 |  |
|  | 1911 | 59 | . 3450 | 55.0 |  | 13 |  | 43 | 3 |  |
| 9 establishments. | 1912 | 47 | . 2997 | 55.0 |  | 3 | 8 | 34 | 2 |  |
| ROUGH ROUNDERS, MALE. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 12 establishments. | $\{1910$ | 57 | .4671 | 54.6 | 1 |  | 35 | 19 | 2 |  |
| 12 establishments. | [1911 | 57 | . 4700 | 54.6 | 1 |  | 35 | 18 | 3 |  |
| 18 establishments.............. | (1911 | 88 | . 4781 | 54.6 | ${ }_{11}^{2}$ |  | 61 | 22 | 6 | 2 |
|  | \|1912 | 98 | . 4747 | 54.5 |  |  | 2 |  |  |  |
| New York: |  |  |  |  |  |  |  |  |  |  |
| 7 establishments . . . . . . . . . . . . : 19.1910 |  | 2925 | $\begin{array}{r} .4171 \\ .4759 \end{array}$ | $\begin{aligned} & 57.2 \\ & 56.3 \end{aligned}$ | ...... | 3 |  | 6 | 14 | 3 |
|  |  | 17 |  |  |  |  |  |  | 2 |  |
| 9 establishments. | $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ |  | 2835 | $\begin{array}{r} .4627 \\ .4663 \end{array}$ | $\begin{aligned} & 56.1 \\ & 54.9 \end{aligned}$ |  |  | 4 | 18 | 2 | 4 |
|  |  |  |  |  |  | 12 | 10 | 5 | 3 | 5 |

Table III.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1912—Continued.

## BOOT AND SHOE MANUFACTURING-Concluded.

FINISHING DEPARTMENT.

| Occupation, State, and number of establishments. | Year. | $\left.\begin{gathered} \text { Num- } \\ \text { ber of } \\ \text { em- } \\ \text { ployees. } \end{gathered} \right\rvert\,$ | $\begin{aligned} & \text { Aver- } \\ & \text { age } \\ & \text { rate of } \\ & \text { wages } \\ & \text { porr } \end{aligned}$ | Aver-agenom-inalfull-timehoursperweek. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\left\|\begin{array}{c} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { under } \\ 51 . \end{array}\right\|$ | $\begin{gathered} 51 \\ \text { and } \\ \text { under } \\ \text { j4. } \end{gathered}$ | 24. | $\begin{gathered} \text { Over } \\ \text { 54, } \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}$ | $\begin{gathered} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}$ | 60. |
| treeis or ironers, mand, Male. |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |
| 13 establishments. | ${ }_{1} 1910$ | 4488 | $\begin{array}{r} 80.2834 \\ .2900 \end{array}$ | $\begin{aligned} & 54.2 \\ & 5+.3 \end{aligned}$ |  | 173 100 | 140 156 | 135 129 |  |  |
| 19 establishments | 1911 | 539 | . 2935 | 54.4 |  | 100 | 255 | 184 |  |  |
| 19 establishments | 11912 | 542 | . 2852 | 54.3 |  | 94 | 305 | 143 |  |  |
| Missouri: |  |  |  |  |  |  |  |  |  |  |
| 8 establishments. | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | $\begin{gathered} 92 \\ 100 \end{gathered}$ | $.2339$ | $60.0$ |  |  |  | 8 | 11 | 92 81 |
|  |  |  |  |  |  |  |  |  |  |  |
| 7 establishments. | (1911 1912 | $\begin{array}{r}92 \\ 89 \\ \hline\end{array}$ | . 23164 | 59.9 59.8 |  |  | 3 |  | 11 | 81 86 |
| New Hampshire: |  |  |  |  |  |  |  |  |  |  |
| 6 establishments. | 1910 | 99 | . 1893 | 56.8 |  |  |  | 24 | 75 |  |
| 6 establishments. | [1911 | 98 | . 1995 | 56.8 |  |  |  | 24 | 74 |  |
| 6 establishments | 1911 | 98 | . 1995 | 56.8 |  |  |  | 24 | 74 |  |
| 6 establishments | 1912 | 134 | . 1935 | 57.7 |  |  |  |  | 134 |  |
| New York: |  |  |  |  |  |  |  |  |  |  |
| 5 estahlishments. | 1910 | 51 | . 2158 | 58.3 |  |  |  | 4 | 31 | 16 |
|  | 1911 | 59 | . 2118 | 58.0 |  |  |  | 25 | 10 | 24 |
|  | 1911 | 71 | . 2054 | 57.4 |  |  | 10 | 27 |  |  |
| 8 establishments. | 1912 | 59 | . 2679 | 55.5 |  | 21 | 13 | 7 | 2 | 16 |
| Ohio: |  |  |  |  |  |  |  |  |  |  |
| 2 establishments. | 11910 | 25 | . 1962 | ${ }^{60.0}$ |  |  |  |  |  | 25 |
|  | 1911 | 25 | . 2096 | 60.0 |  |  |  |  |  | 25 |
| 5 establishments. | 1911 | 45 | . 2043 | 59.9 |  |  |  |  | 10 | 35 |
| sestablishments. | 1912 | 60 | . 2112 | 58.7 |  |  | 13 |  |  | 47 |
| TREERS OR IRONERS, HAND, FEMALE. |  |  |  |  |  |  |  |  |  |  |
| New York: |  |  |  |  |  |  |  |  |  |  |
| 3 establishments. | 11910 | 22 | . 1997 | 54.0 |  |  | 22 |  |  |  |
| 3 estabishments. | 1911 | 23 | . 1942 | 54.0 |  |  | 23 |  |  |  |
| 4 establishments. | 1911 | 23 | . 1942 | 54.0 |  |  | 23 |  |  |  |
| 4 establishments. | [1912 | 29 | . 1651 | 52.9 |  | 11 | 18 |  |  |  |
| Ohio: |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 establishments. ............. $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ |  | 39 | . 1287 | 59.8 |  |  |  |  | 17 | 22 |
|  |  | 33 | . 1591 | 54.0 |  |  | 33 |  |  |  |

## HOSIERY AND KNIT GOODS MANUFACTURING.

GENERAL SUMMARY.

This study of wages and hours of labor in hosiery and knit goods manufacturing shows rates of wages per hour and nominal full-time hours of work per week for the years 1907 to 1912, inclusive, and in addition it summarizes data published in previous reports ${ }^{1}$ of the Bureau of Labor Statistics and thus furnishes a comparison for the 23-year period, 1890 to 1912, inclusive.

The present report and also previous reports show wages and hours of labor for each of the most important productive occupations in hosiery and knit goods manufacturing, but do not show data for all occupations in the industry. The occupations for which data are presented in this report are given in the table below. These occupations include a very large proportion of the total employees on productive work and more than half of the total employees engaged in productive and nonproductive work.

Comparing 1912 with certain other years the changes in nominal full-time hours per week, as shown by combining the principal occupations, were as follows:

```
1912 compared with 1890......................... 7. }9\mathrm{ per cent decline.
1912 compared with 1895........................ 7. 7 per cent decline.
1912 compared with 1900.......................... 5. 9 per cent decline.
1912 compared with }190
4.7 per cent decline.
1912 compared with 1910.......................... 1. }8\mathrm{ per cent decline.
```

The changes in nominal full-time hours per week for each of the principal occupations of the industry during the period from 1907 to 1912, inclusive, as far as data are available, are shown in the table which follows:

PER CENT OF DECREASE IN NOMINAL FULL-TIME HOURS PER WEEK: 1912 COMPARED WITH EACH OF THE 5 YEARS PRECEDING.

| Occupation. |
| :--- |

PER CENT OF DECREASE IN NOMINALFULL-TIME HOURS PER WEEK: 1912 COMPARED WITH EACH OF TIIE 5 YEARS PRECEDING-Concluded.

| Occupation. | Per cent lower in 1912 than in- |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1907 | 1908 | 1909 | 1910 | 1911 |
| Knitters, "lady hose," male. | (1) | $\left.{ }^{1}\right)$ | $\left.{ }^{1}\right)$ | 2.7 | 2.4 |
| Knitters, "lady hose," female | (1) | (1) | (1) | 1.6 | 1.6 |
| Knitters, rib, hosiery, male.. | (l) | ${ }^{1}$ | $(1)$ | 1.8 | 1.6 |
| Knitters, rib, hosiery, female | (1) | (1) | (i) | 3.1 | 3.5 |
| Knitters, web or tube, underwear, male | 4.4 | 4.1 | 4.4 | 1.8 | 1.5 |
| Knitters, web or tube, underwear, female | 5.7 | 5.9 | 6.1 | 3.4 | 2.7 |
| Loopers, female ............................. | 3.3 | 3. 0 | 3.0 | 1.8 | 1.8 |
| Menders, fine, hosiery, female.. | 4. 5 | 3.5 | 3.3 | 2.8 | 2.8 |
| Menders, rough, hosiery, female | 2.4 | 2.2 | 2.4 | .9 1.7 | .9 1.5 |
| Pressers, male................. | 2.4 | 2.2 | 2.0 | 1.7 | 1.5 |
| Press hands, female. | 5.0 | 5.0 | 5.0 | 1.6 | 1.3 |
| Seamers, underwear, female | 3.2 | 3.0 | 3.2 | -8 | . 8 |
| Welters, female.. | (1) | (1) | (1) 8 | 2.3 | 2.3 |
| Winders, female. | 0.2 | 5.0 | 4.8 | 3.0 | 2.5 |
| Total. | 3.8 | 3.5 | 3.6 | 1.8 | 1.7 |

${ }^{1}$ No data.
Comparing 1912 with certain other years the changes in rates of wages per hour, as shown by combining the principal occupations, were as follows:

| 1912 compared with 1890 | 36.1 per cent advance. |
| :---: | :---: |
| 1912 compared with 1895. | 39.8 per cent advance. |
| 1912 compared with 1900. | 50.6 per cent advance. |
| 1912 compared with 1905. | 19.8 per cent advance. |
| 1912 compared with 1910. | 6.1 per cent advance. |

The changes in rates of wages per hour for each of the principal occupations of the industry during the period from 1907 to 1912, inclusive, as far as data are available, are shown in the table which follows:

PER CENT OF INCREASE OR DECREASE IN RATES OF WAGES PER HOUR: 1912 COMPARED WITH FACH OF THF 5 YEARS PRECEDING.

${ }^{1}$ No data.

PER CENT OF INCREASE OR DECREASE IN RATES OF WAGES PER HOUR: 1912 COMPARED WITH EACH OF THE 5 YEARS PRECEDING-Concluded.

| Occupation. | Per cent higher $(+)$ or lower $(-)$ in 1912 than in- |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1907 | 1908 | 1999 | 1910 | 1911 |
| Knitters, web or tube, underwear, fema | -18.1 | -19.0 | -10.9 | -20.6 | -16.4 |
| Loopers, female...................... | +4.9 | +15.0 | +6.3 | +6.0 | +8.6 |
| Menders, fine, hosiery, female | - ${ }^{1.6}$ | +8.5 | +9.5 | + 4.5 | +2.8 |
| Menders, rough, hosiery, female | +17.8 +5.3 | +3.6 +20.4 | + 2.3 +17.2 | +7.4 +8.6 | +6.9 +3.8 |
| Pressers, male. | $+5.3$ | +20.4 | +17.2 | +8.6 | + 3.8 |
| Press hands, female. | +13.0 | +13.6 | +27.3 | + 4.8 | $+5.1$ |
| Seamers, underwear, female | + 5.0 | -3.1 | -37.8 | +5.5 | +6.4 |
| Welters, female . | ${ }^{(1)}$ | ${ }^{(1)}$ | (1) | +17.1 | +12.9 |
| Winders, female. | $+16.7$ | + .8 | +8.1 | +9.7 | + 7.6 |
| Total. | + 7.7 | + 7.5 | + 7.2 | + 6.1 | + 5.8 |

${ }^{1}$ No data.
The next table shows for the industry the course of nominal fulltime hours per week and the rates of wages per hour during the 23year period from 1890 to 1912. The occupations combined and the sex for which data are shown during 1890 to 1907 are boarders, male; finishers, underwear, female; knitters, male and female; loopers, female; menders, female; pressers, male and female; ${ }^{1}$ and ribbers, female. For 1907 to 1910 the occupations, and the sex for which data are shown, are boarders, male; cutters, hand, underwear, female; finishers, underwear, female; folders, female; knitters, footers or toppers, female; knitters, web or tube, underwear, male and female; loopers, female; menders, fine, hosiery, female; menders, rough, hosiery, female; pressers, male; press hands, female; seamers, underwear, female; and winders, female. For 1910 to 1912 the occupations and the sex for which data are shown are boarders, male; buttonhole makers, underwear, female; button sewers, underwear, female; cutters, hand, underwear, male and female; finishers, underwear, female; folders, female; inspectors and menders, underwear, female; knitters, footers or toppers, hosiery, male and female; knitters, "lady hose," male and female; knitters, rib, hosiery, male and female; knitters, web or tube, underwear, male and female; loopers, female; menders, fine, hosiery, female; menders, rough, hosiery, female; pressers, male; press hands, female; seamers, underwear, female; welters, female; and winders, female.

Data are not given for knitters of full-fashioned hosiery because such knitters in many instances pay their own helpers, which makes it difficult to ascertain the net earnings of the knitters. An effort will be made to get such data for future reports.

The figures of the table are relative hours of labor and relative wages computed from the actual hours and wages in the establishments furnishing data. They also show the per cent of change from year to year as measured by the average from 1890 to 1899.

[^6]By nominal full-time hours per week is meant the usual full working time, such as prevails when there is no industrial depression or other unusual factor affecting the industry.

In combining the relatives for the principal occupations to determine the relatives for the industry shown in the table which follows, the relatives for each occupation were weighted according to the number of employees reported each year. This weighting causes the figures for 1890 to 1907 to differ slightly from those shown for the industry in Bulletin No. 77 (July, 1908), where the relative for the industry was a simple average of occupation relatives. Under these two methods, the difference in relative hours does not exceed 1 per cent in any of the 18 years, and the difference in relative wages does not exceed 1 per cent in 10 of the 18 years, the greatest difference being about 2.7 per cent. The base used in computing the relatives in this table is the average for the 10 -year period, 1890 to 1899.

RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES Of WAGES PER HOUR IN HOSIERY AND KNIT GOODS MANUFACTURING, 1890 TO 1912.
[Data are included from 8 establishments, 1890-1903; 9 establishments, 1903, 1904; 22 establishments, 1904, 1905; 25 establishments, 1905, 1906; . 30 establishments, 1906, 1907; 15 establishments, 1907-1910; 62 establishments, 1910, 1911; 62 establishments, 1911, 1912.]

| Year. | Relative nominal full-time hours per week. | Relative rate of wages per hour. |
| :---: | :---: | :---: |
| A verage: 1890-1899. | 100.0 | 100.0 |
| 1890. | 101. 1 | 105.6 |
| 1891. | 101.1 | 106.9 |
| 1892. | 101.2 | 100.3 |
| 1893. | 100.5 | 100.1 |
| 1894. | 94.8 | 96.7 |
| 1895. | 100.4 | 102.8 |
| 1896. | 100.3 | 99.3 |
| 1897. | 100.3 | 96.1 |
| 1898. | 100.3 | 96.4 |
| 1899. | 100.2 | 93.2 |
| 1900. | 98.9 | 95.4 |
| 1901. | 98.8 | 102.0 |
| 1902. | 98.9 | 111.0 |
| 1903. | 97.9 | 117.6 |
| 1904. | 97.8 | 114.8 |
| 1905. | 97.7 | 119.9 |
| 1906. | 97.2 | 126.9 |
| 1907. | 96.8 | 133.4 |
| 1908. | 96.5 | 133.7 |
| 1909. | 96.6 | 134.1 |
| 1910. | 94.8 | 135.5 |
| 1911. | 94.7 | 135.8 |
| 1912. | 93.1 | 143.7 |

The table which follows shows, for each of the principal occupations in the industry, relative nominal full-time hours per week and relative rates of wages per hour during the 23 -year period 1890 to 1912 . As already indicated, changes in the occupations included have been made from time to time during the period covered. The base used for computing the relatives for each occupation, except as noted, is the average of the 10 -year period, 1890 to 1899.

RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN HOSIERY AND KNIT GOODS MANUFACTURING, 1890 TO 1912.
[Data are included from 8 establishments, 1890-1903; 9 establishments, 1903, 1904; 22 establishments, 1904 , 1905; 25 establishments, 1005, 1906; 30 establishments, 1906, 1907; 15 establishments, 1907-1910; 62 establishments, 1910, 1911; and 62 establishments, 1911, 1912.]

${ }^{1}$ Data for 1890 to 1909 not a vailable; computed with $1910=100.0$.
2 Data for 1890 to 1906 not available; computed with $1907=100.0$.

RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN HOSIERY AND KNIT GOODS MANUFACTURING, 1890 TO 1912-Continued.

| Year. | Knitiers, ${ }^{1}$ male. |  | Knitters, ${ }^{\text {female. }}$ |  | Knitters, footers or toppers, ${ }^{2}$ male. |  | Knitters, footers or toppers, ${ }^{2}$ female. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Relative nominal full-time hours per week. | $\begin{gathered} \text { Relative } \\ \text { rate of } \\ \text { wages per } \\ \text { hour. } \end{gathered}$ | Relative <br> nominal <br> full-time <br> hours per week. | $\begin{gathered} \text { Relative } \\ \text { rate of } \\ \text { wages per } \\ \text { hour. } \end{gathered}$ | Relative nominal full-time hours per week. | Relative rate of wages per hour. | Relative nominal full-time hours per week. | $\begin{gathered} \text { Relative } \\ \text { rate of } \\ \text { wages per } \\ \text { hour. } \end{gathered}$ |
| Average, 1890-1899.. | 100.0 | 100.0 | 100.0 | 100.0 |  |  |  |  |
| 1890 | 102.8 | 107.7 | 100.5 | 104.9 |  |  |  |  |
| 1891. | 102.8 | 118.6 | 100.6 | 104.8 |  |  |  |  |
| 1892. | 102.8 | 99.8 | 100.6 | 99.0 |  |  |  |  |
| 1893. | 100.5 | 113.4 | 100.5 | 97.4 |  |  |  |  |
| 1894. | 91.3 | 110.0 | 95.7 | 101.1 |  |  |  |  |
| 1895. | 100.3 | 112.2 | 100.4 | 104.6 |  |  |  |  |
| 1896. | 100.1 | 90.4 | 100.5 | 98.5 |  |  |  |  |
| 1897. | 99.9 | 81.8 | 100.5 | 98.7 |  |  |  |  |
| 1898. | 99.8 | 85.4 | 100.5 | 96.2 |  |  |  |  |
| 1899. | 99.8 | 80.7 | 100.5 | 94.5 |  |  |  |  |
| 1900. | 98.7 | 90.9 | 99.3 | 91.5 |  |  |  |  |
| 1901. | 98.7 | 92.3 | 99.6 | 103.1 |  |  |  |  |
| 1902. | 98.7 | 95.7 | 99.3 | 112.4 |  |  |  |  |
| 1903. | 97.4 | 123.9 | 98.6 | 116.6 |  |  |  |  |
| 1904. | 97.6 | 115.4 | 98.2 | 111.4 |  |  |  |  |
| 1905. | 97.3 | 119.2 | 98.1 | 124.1 |  |  |  |  |
| 1906. | 99.0 | 126.2 | 97.6 | 130.8 |  |  |  |  |
| 1907. | 96.9 | 128.1 | 97.1 | 135.5 |  |  | 3100.0 | 3100.4 |
| 1908. |  |  |  |  |  |  | 3100.0 | 3108.0 |
| 1909. |  |  |  |  |  |  | 3100.0 | 3108.0 |
| 1910. |  |  |  |  | 4100.0 | ${ }^{1} 100.0$ | 396.6 | ${ }^{3} 107.7$ |
| 1911. |  |  |  |  | 499.7 | 4103.0 | 396.6 | - 3109.4 |
| 1912. |  |  |  |  | 499.2 | 4110.8 | 394.7 | - 3111.7 |
|  | Knitters hose," | s, "lady 2 male. | Knitters hose," 2 | s,"lady female. | Knitters, siery, ${ }^{2}$ | rib, homale. | Knitters, <br> siery, ${ }^{2}$ | $\begin{aligned} & \text { rib, ho- } \\ & \text { female. } \end{aligned}$ |
| Average, 1890-1899.. |  |  |  |  |  |  |  |  |
| 1890. |  |  |  |  |  |  |  |  |
| 1891. |  |  |  |  |  |  |  |  |
| 1892. |  |  |  |  |  |  |  |  |
| 1893. |  |  |  |  |  |  |  |  |
| 1894... |  |  |  |  |  |  |  |  |
| 1895. |  |  |  |  |  |  |  |  |
| 1896............... |  |  |  |  |  |  |  |  |
| 1897............... |  |  |  |  |  |  |  |  |
| 1899. |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 1900. |  |  |  |  |  |  |  |  |
| 1901. |  |  |  |  |  |  |  |  |
| 1902. |  |  |  |  |  |  |  |  |
| 1904. |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 1905. |  |  |  |  |  |  |  |  |
| 1906. |  |  |  |  |  |  |  |  |
| 1907. |  |  |  |  |  |  |  |  |
| 1908. |  |  |  |  |  |  |  |  |
| 1909...... |  |  |  |  |  |  |  |  |
| 1910. | 4100.0 | 4100.0 | 4100.0 | 4100.0 | ${ }^{4} 100.0$ |  |  |  |
| 1911................... | 4100.0 499.7 | 4100.0 4100.4 | 4100.0 4100.0 | 4100.0 4101.1 | 4100.0 499.8 | 4100.0 <br> +100.2 <br> 10. | 4100.0 +100.4 | 4100.0 4117.0 |
| 1912.............. | 497.3 | 4108.3 | 198.4 | 4115.9 | 498.2 | 4106.1 | 496.9 | +114. 4 |

${ }^{1}$ Employees reported as knitters for 1890 to 1907 are reported for subsequent years as knitters, footers or toppers; knitters, "lady hose;" knitters, rib, hosiery; and knitters, web or tu be, underwear.
2 Employees in this occupation were reported as knitters for 1890 to 1907.
${ }^{3}$ Data for 1890 to 1906 not available; computed with $1907=100.0$.
4 Data for 1890 to 1909 not available; computed with $1910=100.0$.

RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN THE PRINCIPAL OCCUPATIONS IN HOSIERY AND KNIT GOODS MANUFACTURING, 1890 TO 1912-Continued.


[^7]RELATIVE NOMINAL FULL-TIME HOURS PER WEEK AND RELATIVE RATES OF WAGES PER HOUR IN TIE PRINCIPAL OCCUPATIONS IN HOSIERY AND KNIT GOODS MANUFACTURING, 1890 TO 1912-Concluded.

| Year. | Ribbers, female. |  | Seamers, underwear, female. |  | Welters, female. |  | Winders, female. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Relative nominal full-time hours per week. | Relative rate of wages per hour. | Relative nominal full-time hours per week. | Relative rate of wages per hour. | Relative nominal full-time hours per week. | Relative rate of wages per hour. | Relative nominal full-time hours per week. | Relative rate of wages per hour. |
| Average, 1890-1899 | 100.0 | 100.0 |  |  |  |  |  |  |
| 1890. | 100.0 | 100.5 |  |  |  |  |  |  |
| 1891. | 100.0 | 112.3 |  |  |  |  |  |  |
| 1892. | 100.0 | 103.1 |  |  |  |  |  |  |
| 1893. | 100.0 | 103.4 |  |  |  |  |  |  |
| 1894. | 100.0 | 91.8 |  |  |  |  |  |  |
| 1895. | 100.0 | 98.8 |  |  |  |  |  |  |
| 1896 | 100.0 | 87.2 |  |  |  |  |  |  |
| 1897. | 100.0 | 92.0 | ......... |  |  |  |  |  |
| 1898. | 100.0 | 96.4 |  |  |  |  |  |  |
| 1899. | 100.0 | 114.4 |  |  |  |  |  |  |
| 1900. | 100.0 | 110.1 |  |  |  |  |  |  |
| 1901. | 100.0 | 112.8 |  |  |  |  |  |  |
| 1902. | 100.0 | 120.9 |  |  |  |  |  |  |
| 1903. | 100.0 | 119.0 |  |  |  |  |  |  |
| 1904. | 100.0 | 117.3 |  |  |  |  |  |  |
| 1905. | 100.0 | 122.6 |  |  |  |  |  |  |
| 1906 | 100.0 | 127.0 |  |  |  |  |  |  |
| 1907. | 99.7 | 137.6 | 1100.0 | 1100.0 |  |  | 1100.0 | 1100.0 |
| 1908. | (2) | (2) | 199.8 1 | 1108.4 |  |  | 199.8 | 1115.8 |
| 1909. |  |  | ${ }^{1} 100.0$ | 1109.2 |  |  | 199.6 | ${ }^{1} 1108.0$ |
| 1910. |  |  | 197.6 | 199.5 | 3100.0 | 3100.0 | 197.7 | ${ }^{1} 106.4$ |
| 1911. |  |  | 197.6 | 198.7 | ${ }^{3} 100.0$ | ${ }^{3} 103.7$ | 197.2 | ${ }^{1} 108.5$ |
| 1912. |  |  | 196.8 | 1105.0 | 397.7 | ${ }^{3} 117.1$ | 194.8 | 1116.7 |

${ }^{1}$ Data for 1890 to 1906 not available; computed with $1907=100.0$.
2 Occupation discontinued.
${ }^{3}$ Data for 1890 to 1909 not available; computed with $1910=100.0$.
The most significant facts concerning nominal full-time working hours per week and rates of wages per hour in each of the principal occupations of the industry are shown for 1907 to 1912, or for such of those years as data are available, in the table which follows.

The data for the several years 1907 to 1911 were secured in 1911. Owing to the difficulty of finding records for past years and also owing to the great amount of work involved, data for 1907 to 1909 were secured from only a limited number of establishments. Data for 1910 and 1911 were obtained from a larger number of establishments.

In 1912 data were gathered for the year 1912 from the establishments that furnished data for 1911, and at the same time some additional data relating to 1911 and 1912 were gathered from a few new establishments, the scope of the work being enlarged to include a greater number of establishments.

To permit a comparison of data from year to year the data for identical establishments are grouped together. A true comparison can be made, of course, only of data from the same establishments. Data for 1912 from new establishments are included in this tabulation only when it was possible to get like data for 1911 from the same establishments. The data are for the pay-roll period ending nearest May 15 each year, except for a very few establishments in which conditions in May were particularly abnormal.

AVERAGE NOMINAL FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE Rates of wages per hour in each of the principal occupations in HOSIERY AND KNIT GOODS MANUFACTURING, 1907 TO 1912.
[The establishments set opposite each bracketed group of years are identical.]

| Occupation, sex, and number of establishments. | Year. | Number of employees. | Average nominal full-time hours per week. | A verage rate of wages per hour. |
| :---: | :---: | :---: | :---: | :---: |
| Boarders, male:    <br> 1907 203 58.4 80.2180 |  |  |  |  |
|  |  | 2203 | 58.4 58.1 | 80.2180 .2111 |
| 8 establishments. | 1903 | 220 | 58.2 | . 2037 |
|  | ( 1910 | 237 | 57.1 | . 2186 |
|  | ¢ 1910 | 808 | 57.0 | . 1926 |
| 33 establishments. | ( 1911 | 862 | 57.0 | . 1893 |
| 32 establishments. | $\{1911$ | 869 | 56.9 | . 1891 |
| 32 establishments................... | (1912 | 959 | 55.6 | . 2173 |
| Buttonhole makers, underwear, female: |  |  |  |  |
| 21 establishments. | 1911 | 167 | 58.0 | . 1663 |
| 27 establishments. | $\{1911$ | 191 | 58.0 | . 1640 |
| 27 establishments. | (1912 | 194 | 57.1 | . 1672 |
| Button sewers, underwear, female: |  |  |  |  |
| 21 establishments. | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | 159 | 58.1 58.3 | . .14971 |
|  | $\{1911$ | 171 | 58.2 | . 1457 |
| Cutters, hand, underwear, male: $\quad\left(\begin{array}{c}1912 \\ 1910\end{array}\right.$ |  |  |  |  |
|  |  |  |  |  |
| 12 establishments. | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | 130 123 | 59.3 58.9 | . 22236 |
| 18 establishments. | 1911 | 138 | 58.6 | . 2265 |
| Cutters, hand, underwear, female: |  |  |  | .2133 |
| Cutters, hand, underwear, iemale. | ( 1907 | 82 | 58.6 | . 1441 |
| 4 establishments. | $\left\{\begin{array}{l}1907 \\ 1909\end{array}\right.$ | 90 | 57.9 | - 1574 |
|  | (1909 | ${ }_{96}^{98}$ | 58.0 56.5 | . 14438 |
| 10 establishments. | f 1910 | 182 | 56.5 |  |
|  | \{ 1911 | 154 | 56.5 | . 1391 |
| 14 establishments. | $\{1911$ | 161 | 56.4 | . 1387 |
|  |  |  |  |  |
| 5 establishments. | 1907 | 555 | 58.7 | . 1.579 |
|  | 11908 | ${ }_{5}^{516}$ | 58.6 | . 1208 |
|  | $\left\{\begin{array}{l}1909 \\ 1910\end{array}\right.$ | 533 519 | 58.7 57.8 | -1480 |
|  |  |  |  | - 1541 |
| 23 establishments. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | $\{1910$ | 1,443 | 57.9 | .1300 |
|  | - 1911 | 1,439 | 57.8 | . 1447 |
| 27 establishments. | $\{1911$ | 1,533 | 57.9 | 1479 |
| Folders, female: |  |  |  |  |
|  |  |  |  |  |
| 7 establishments. | 1908 | 165 | 58.2 | . 1369 |
|  | 1909 | 134 | 58.3 | . 1556 |
|  | ( 1910 | $13 i$ | 57.2 | . 1557 |
| 45 establishments. | $\{1910$ | 626 | 57.8 | . 1275 |
|  | (1911 | 611 | 57.7 | . 1267 |
|  | \{ 1911 | 653 | 57.6 | . 1283 |
|  |  |  |  |  |
|  |  |  |  |  |
| 22 establishments....................... | $\{1911$ | 615 | 57.8 | .1249 |
| 24 establishments. | $\{1911$ | 658 | 57.6 | . 1239 |
|  |  |  |  |  |
|  |  |  |  |  |
| 4 establishments............................................... 1911 |  | 133 | 58.0 | . 1400 |
| 12 establishments........................................ $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ |  | 172 | 57.8 | . 1405 |
|  |  | 209 | 57.5 | . 1576 |

WAGES AND HOURS OF LABOR, 1890 TO 1912-KNIT GOODS.
AVERAGE NOMINAL FULL-TIME HOURS OF WORK PER WEEK AND AVERAGE RATES OF WAGES PER HOUR IN EACH OF THE PRINCIPAL OCCUPATIONS IN HOISERY AND KNIT GOODS MANUFACTURING, 1907 TO 1912-Continued.

| Occupation, sex, and number of establishments. | Year. | Number of employees. | A verage nominal full-time hours per week. | Average rate of wages per hour. |
| :---: | :---: | :---: | :---: | :---: |
| Knitters, footers or toppers, female: |  |  |  |  |
|  |  | 154 | 58.1 | \$0.1234 |
| 3 establishments | $\left\{\begin{array}{l}1908 \\ 1009\end{array}\right.$ | ${ }_{145}^{175}$ | 58.1 58.1 | $\begin{array}{r} 1337 \\ .1332 \end{array}$ |
|  | 1910 | 116 | 56.1 | . 1328 |
|  | \{ 1910 | 1,851 | 57.5 | . 1213 |
| 32 establishments. | \{ 1911 | 1,740 | 57.5 | . 1232 |
| 33 establishments. | \{ 1911 | 2,174 | 57.2 | . 1348 |
| Knitters, "lady hose," male: |  |  |  |  |
|  |  |  |  |  |
|  | 1911 | 220 | 57.4 | . 1753 |
| 13 establishments. | ¢ 1911 | 215 | 57.4 | . 1757 |
| Knitters, "lady hose," female: $\quad$ (1010 |  |  |  |  |
| 12 establishments. . . . . . . | \{ 1910 | 277 | 50.2 | . 1540 |
| 12 establishments. | ( 1911 | 260 | 56.2 | . 1557 |
| 11 establishments. | ( 1911 | 252 | 55.8 | . 1615 |
| Knitters, rib, hosiery, male: |  |  |  |  |
| 17 establishments....... | f 1910 | 55 | 56.6 | . 1992 |
| 17 establishments. | \| 1911 | 47 | 56.5 | . 1996 |
| 21 establishments. | $\{1911$ | 92 | 57.3 | . 1892 |
|  |  |  |  |  |
| 14 establishments. | 1910 | 49 | 57.4 | . 1299 |
|  | ( 1911 | 38 | 57.6 | . 1520 |
| 13 establishments. | \{ 1911 | 45 | 57.1 | . 1473 |
| Knitters, web or tube, underwear, male: |  |  |  |  |
| 4 establishments. | ( 1907 | 101 | 58.5 | . 2194 |
|  | 1908 | 107 | 58.3 | . 2087 |
|  | 1909 | 110 | 58.5 | . 2131 |
|  | 1910 | 100 | 57.0 | . 2135 |
| 14 establishments. | 1910 | 212 | 58.0 | . 2012 |
|  | 1911 | 209 | 58.1 | . 2153 |
| 22 establishments | \{ 1911 | 253 | 57.9 | . 2111 |
| Knitters, web or tube, underwear, female: |  |  |  |  |
| 3 establishments. | 1907 | 101 | 58.3 | . 1433 |
|  | 1908 | 113 | 58.4 | . 1448 |
|  | 1909 | 109 | 58.5 | - 1316 |
|  | 1910 | 96 | 56.9 | . 1477 |
| 16 establishments. | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | 245 | 57.4 | . 1721 |
|  |  | 205 | 57.0 | . 1636 |
| 19 establishments. | $\{1911$ | 316 | 56.9 | . 1618 |
|  |  |  |  |  |
| 9 establishments. | (1907 | 610 | 58.4 | . 1403 |
|  | 1908 | 637 | 58.2 | . 1279 |
|  | $\left(\begin{array}{l}1909 \\ 1910\end{array}\right.$ | 603 582 | ${ }_{57.5}^{58.2}$ | . 1388 |
|  |  |  |  |  |
| 43 establishments. | $\{1910$ | 2,013 | 57.3 | . 1326 |
|  | \{ 1911 | 1,904 | 57.3 | . 1293 |
| 44 establishments | \{ 1911 | 2,089 | 57.1 | . 1343 |
| Menders, fine, hosiery, female: | ( 1912 | 2,262 | 56.1 | . 1459 |
|  | ( 1907 | 112 | 58.5 | . 1446 |
| 8 establishments. | - 1908 | 132 | 57.9 | . 1324 |
|  | -1909 | 115 | 57.8 | . 1313 |
|  | - 1910 | 110 | 57.5 | . 1375 |
| 30 establishments.. | $\{1910$ | 385 | 57.2 | . 1320 |
|  | ( 1911 | 309 | 57.2 | . 1342 |
| 27 establishments...................................... $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ |  | 359 | 57.2 | . 1344 |
|  |  | 297 | 55.6 | . 1382 |

AVERAGE NOMINAL FULL-TIME IIOURS OF WORK PER WEEK AND AVERAGE RATES OF WAGES PER HOUR IN EACH OF THE PRINCIPAL OCCUPATIONS IN HOSIERY AND KNIT GOODS MANUFACTURING, 1907 TO 1912-Concluded.

| Occupation, sex, and number of establishments. | Year. | Number of employees. | Average nominal full-time hours per week. | $\begin{gathered} \text { Average } \\ \text { rate of } \\ \text { wages per } \\ \text { hour. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| Menders, rough, hosiery, female: |  |  |  |  |
| 5 establishments. |  | 147 | 58.4 | \$0.1108 |
|  | $\left\{\begin{array}{l}1998 \\ 1909\end{array}\right.$ | 134 | 58.3 58.4 | .1260 .1276 |
|  | 1910 | 122 | 57.5 | . 1216 |
| 29 establishments. | \{ 1910 | 704 | 57.0 | . 1219 |
|  | \{ 1911 | 648 | 57.0 | . 1225 |
| 30 establishments. | 1911 | 728 | 56.9 | . 1318 |
| Pressers, male: | ( 1912 | 681 | 56.4 | . 1409 |
|  | ( 1907 | 32 | 59.3 |  |
| 7 establishments. | 1908 | 35 | 59.2 | . 1670 |
|  | 1909 | 40 | 59.1 | . 1714 |
|  | 1910 | 33 | 58.9 | . 1850 |
| 34 establishments. | \{ 1910 | 155 | 58.0 | . 1774 |
|  | \{ 1911 | 151 | 58.0 | . 1856 |
| 33 establishments.. | $\{1911$ | 151 | 57.7 | . 1874 |
| Press hands, female: | (1912. | 157 | 56.8 | . 1946 |
|  | ( 1997 | 100 | 58.0 | . 1188 |
| 2 establishments. | 1908 | 107 | 58.0 | . 1182 |
|  | 1909 | 115 | 58.0 | . 1055 |
|  | ( 1910 | 94 | 56.0 | . 1281 |
| 13 establishments. | \{ 1910 | 207 | 57.7 | . 1186 |
|  | $\{1911$ | 208 | 57.5 | . 1183 |
| 12 establishments. | \{ 1911 | 196 | 56.5 | . 1140 |
| Seamers, underwear, female: | (1912 | 206 | 55.8 | . 1198 |
|  | [ 1907 | 390 | 58.6 | . 1443 |
| 5 establishments. | 1908 | 426 | 58.5 | . 1564 |
|  | 1909 | 439 | 58.6 | . 1576 |
|  | 1910 | 433 | 57.2 | . 1436 |
| 23 establishments. | $\{1910$ | 1,181 | 57.8 | . 1429 |
|  | \{ 1911 | 1,197 | 58.0 | . 1417 |
| 27 establishments. | f 1911 | 1,280 | 58.1 | . 1411 |
| Welters, female: | (1912 | 1,265 | 57.6 | . 1501 |
|  | f 1910 | 250 | 57.6 |  |
| 23 establishments. | $\{1911$ | 232 | 57.6 | . 1250 |
| 23 establishments. | \{ 1911 | 288 | 57.4 | . 1272 |
|  | (1912 | 303 | 56.1 | . 1437 |
| Winders, female: | ( 1907 | 266 |  |  |
| 6 establishments. | 1908 | 276 | 58.7 | . 1625 |
|  | 1909 | 262 | 58.6 | . 1515 |
|  | 1910 | 276 | 57.5 | . 1492 |
| 38 establishments. | f 1910 | 1,020 | 58.0 |  |
|  | 1911 | ${ }^{1} 960$ | 57.9 | . 1318 |
| 45 establishments |  | 1,001 | 57.8 | . 1302 |
|  | \{ 1912 | 982 | 56.4 | . 1400 |

## EXPLANATION OF SCOPE AND METHOD.

This report on hosiery and knit goods manufacturing includes establishments engaged primarily in the manufacture of hosiery or underwear. No data are included from establishments whose main products are mittens, gloves, caps, mufflers, athletic goods, shawls, specialties, etc.

The number of establishments for which data concerning rates of wages per hour and nominal full-time hours of work per week were secured has varied considerably during the 23-year period, as follows:

| to 1903 | al establishments. |
| :---: | :---: |
| 1903 and 1904. | . 9 identical establishments. |
| 1904 and 1905. | 22 identical establishments. |
| 1905 and 1906. | 25 identical establishments. |
| 1906 and 1907 | 30 identical establishments. |
| 1907 to 1910 | 15 identical establishments. |
| 1910 and 1911. | 62 identical establishments. |
| 1911 and 1912 | 62 identical establishments. |

As before stated, the data for 1907 to 1911 were secured in 1911, and the number of identical establishments included for the full poriod 1907 to 1910 was limited owing to the difficulty in finding establishments which had preserved complete records for those years.

In order that the data from year to year may be entirely comparable, it is necessary that information be secured from identical establishments; therefore when in 1911 the number of establishments was increased to 62 the Bureau secured data for 1910 also from all establishments added, thus providing for an exact comparison of the two years 1910 and 1911.

In selecting the establishments from which to secure data the Bureau undertook to represent all States in which hosiery and knit goods manufacturing is of material importance, the measure of importance being the number of employees as reported by the United States Census of Manufactures, 1905. In selecting establishments in 1912 every State having 1,850 or more employees in the industry, and two having less than that number, according to the United States Census of Manufactures in 1905, is represented. The table which follows shows by States the number of employees in the hosiery and knit goods manufacturing industry, as given in the reports of the United States Census Office for 1910 and 1905; the total number on the pay roll in the establishments from which the Bureau secured data in 1912; and the number in the selected occupations and for whom data were secured in 1912. Data were secured from the pay roll ending nearest May 15, except for a very few establishments where conditions in May were particularly abnormal.

The census figures for 1910 were not available at the time the work for 1911 and 1912 was planned, and therefore the establishments selected, as already stated, were distributed by States according to the census of 1905. The relative importance, however, of the various States, as measured by the number of employees in this industry, did not change materially during the five years from 1905 to 1910.

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7446^{\circ}-\text { Bull. } 134 — 13-6
$$

TOTAL NUMBER OF EMPLOYEES IN HOSIERY AND KNIT GOODS MANUFACTURING AND NUMBER OF EMPLOYEES IN ESTABLISIMENTS FROM WHICH DATA WERE SECURED IN 1912.

${ }^{1}$ Includes States having less than 3,200 employees (except as entered in detail) in 1910 and less than 1,850 in 1905.

According to both the census of 1905 and the census of 1910 , more than 85 per cent of the total number of employees in the industry are found in the States in which the establishments furnishing information to the Bureau of Labor Statistics are located.

The number of employees on the pay rolls of the establishments from which the Bureau secured the 1912 data was equal to 21.6 per cent of the total in the industry in 1910 as reported by the United States Census Office, and the number of employees for whom the Bureau secured detailed information in 1912 was equal to 11.2 per cent of the total in the industry in 1910.

All information included in this report was secured from pay rolls of the various establishments by agents of the Bureau of Labor Statistics.

## description of the principal productive occupations.

The data presented in this bulletin were obtained from establishments whose sole or main products are hosiery or underwear or both. Data were not taken from factories whose main products are sweaters, mittens, gloves, caps, mufflers, bathing suits, shawls, scarfs, or other specialties. Figures are shown for 19 occupations: Seven are common to the making of both hosiery and underwear; 5 pertain to hosiery making only, and 7 to underwear making only. While some of the mills do their own spinning and nearly all do dyeing, figures are not shown for such departments. The wages of spinning and dyeing are fairly covered in an earlier bulletin on the cotton and woolen industries.

The principal departments or subdivisions in order of work in a hosiery mill are usually winding, knitting, looping, mending, boarding, pressing, and folding. In an underwear mill the principal departments in order are usually winding, knitting, cutting, seaming, finishing, boarding, pressing, and folding.

The occupations for which data are presented in this report are:

Boarders, male.
Buttonhole makers, underwear, female.
Button sewers, underwear, female.
Cutters, hand, underwear, male.
Cutters, hand, underwear, female.
Finishers, underwear, female.
Folders, female.
Inspectors and menders, underwear, female.
Knitters, footers or toppers, hosiery, male.
Knitters, footers or toppers, hosiery, female.
Knitters, "lady hose," male.

Knitters, "lady hose," female.
Knitters, rib, hosiery, male.
Knitters, rib, hosiery, female.
Knitters, web or tube, underwear, male.
Knitters, web or tube, underwear, female.
Loopers, female.
Menders, fine, hosiery, female.
Menders, rough, hosiery, female.
Pressers, male.
Press hands, female.
Seamers, underwear, female.
Welters, female.
Winders, female.

Hosiery and knit goods manufacturing is to a very great extent a woman's industry. Many occupations are filled entirely or at least mainly by females.

Of the 19 occupations reported, 12 are so largely filled by women that wages are presented for females only. In 5 of the occupations the number of each sex warrants the presentation for each sex separately. Two of the occupations, boarders and pressers, require such heavy labor that men are employed almost exclusively.

## BOARDERS.

While the occupation occurs in the manufacture of both hosiery and underwear, it applies mainly to hosiery. Practically all hosiery is boarded, while comparatively little underwear is boarded. The hose boarder receives the hose damp from the dye house. He draws the hose by hand, while yet damp, over a board shaped to the outline of the human foot and leg. When he has drawn the hose smooth over the board, he sets several boards in a rack and puts the rack in a hot drying kiln. When the hose are dry he takes the rack from the kiln and removes the hose from the boards. The hose reep the shape given by the board. While racks of hose are drying others are being filled. Underwear boarding is similar to hosiery boarding. The board is shaped to the outline of the human body. Boarding is hard, hot work, and is always done by men.

## BUTTONHOLE MAKERS, UNDERWEAR.

The operator uses a special power sewing machine which works and also cuts the buttonhole. The operator usually marks the place
for the buttonhole, but the marking may be done by another person. Women are usually employed on this work.

## BUTTON SEWERS, UNDERWEAR.

The operator uses a special power machine. The button is placed in position in the machine by hand, and the operation of the machine sews the button on the garment. Usually the operator marks the place for the button. The work is usually done by women.

CUTTERS, HAND, UNDERWEAR.
The material comes to the cutter in the form of a long flat tube or double thick web, or, in other words, a cylinder flattened down, rolled in a bundle. A portion of the web is spread on a long table. The cutter examines the material for defects, and then cuts off a section of this web to garment length, lays a pattern on the section, marks the pattern on the goods, and cuts out the garment with a pair of shears.

Or the process may be varied. Several sections of garment length may be put in a pile and all cut at one timewith a large hand-operated knife worked up and down vertically through a slot in the table.

Both men and women are employed on this work. In some mills machines are used to cut several thicknesses at one time, but the wage data shown in this report do not include the operators of such machines.

## FINISHERS, UNDERWEAR.

After the garment has been sewed together by the seamer and the seam has been covered by the cover seamer, the garment is ready for the finisher. The finisher uses a power sewing machine. This work consists in stitching straps, suspender tapes, and bands on drawers, stitching facings on shirts, and also various reseaming operations to strengthen or ornament the garment. Women are employed at this operation.

FOLDERS.
The folder spreads the finished article on the worktable and folds it to the size desired for packing in a box. It is a hand operation. The work is usually done by women, who generally stand at their work. The folder in some factories may also inspect and pack.

## INSPECTORS AND MENDERS, UNDERWEAR.

The occupations of inspecting and mending underwear are here combined, for the reason that in a considerable number of mills employees are engaged on both interchangeably. Inspecting in this case consists of looking the garment over for defects in work or for holes
in material, and cutting off threads or little pieces of material, such as tapes and bands, etc. The mending done on underwear is very similar to that on hosiery, except that no forms are used upon which to place the garment. All imperfections-holes in the material, etc.are mended, so that the garment may be salable as a "first" and not as a "second." Mending is done by hand with a needle and yarn. Women are always employed at this work.

## KNITTERS, FOOTERS, OR TOPPERS, HOSIERY.

This knitter is sometimes called a footer, a topper, or a transfer knitter. The operator starts his work with a section of ribbing previously knit on a rib machine. This section may be but 3 or 4 inches long, as placed at the top of men's or children's hose, or it may be a leg length of children's hose. The knitter first sets up the section of ribbing stitch by stitch, by hand, on the quills of a cylinder fitted to his machine, and transfers the stitching from the quills to the needles of his machine. The machine is then started. Automatically it knits onto the ribbing the remainder of the leg and the foot of the hose. The setting of the rib top on the quills preparatory to knitting is done in some instances by a boy or girl helper. A knitter can operate from six to nine machines when the quilling is done by a helper; doing both the transferring and the knitting, the knitter can operate from one to three machines. The machine knits the hose complete and seamless, except an opening across the toe, which must be looped together by another operation. Women greatly outnumber men in this occupation. This occupation is not found in the making of women's hose.

All knitters in this and other operations receive their yarn on cones. Their duties are to prepare the machines for work and see that they run properly and produce a perfect fabric, to tie broken yarn, and to replace empty cones, etc.

## KNITTERS, "LADY HOSE."

This is a term quite generally applied to persons operating machines knitting women's seamless hosiery. The operation is also known as string work. The operator can attend from 10 to 16 machines, which knit the hose from the top to the toe, one hose after another, automatically. The machine drops and picks up stitches to knit the heel, and, after knitting the foot, again drops and picks up stitches to form the toe. The machine knits the hose complete and seamless, except an opening across the toe, which must be looped together by another operation. Men and women are found in this occupation in about equal numbers.

This knitter operates a machine which knits the rib that is used later as the top of men's and children's hose. One person can attend 20 or more machines. The rib is knit as a long cylinder or tube. Stitches are dropped at intervals to indicate where the rib is to be cut later in lengths for hose tops. Both men and women are employed on these machines. These tops when cut go to a knitter, known as a footer or topper.

## KNITTERS, WEB OR TUBE, UNDERWEAR.

The knitting machines are cylindrical in shape and vary in size according to the size of garment to be made from the knit fabric. They knit a tube or cylinder which, when laid flat, forms a continuous piece of goods of double thickness and as wide as the garment to be cut therefrom. The knitter attends from 10 to 15 machines. These machines are either of the latch or spring needle type. The spring needle is one used for light or what is known as flat work; the latch needlo is used for the heavier or rib work, which is more elastic and will stretch more than the flat fabric. In all mills it was not possible to separate the latch and spring needle knitters. Usually they do not work interchangeably, but in several mills where they have a few of each class of machines an operator can run either machine. Both men and women are employed at these machines.

## LOOPERS.

In hosiery mills this operation consists of looping together the open edges at the toe of the hose as left to this extent unfinished by the knitter. Each edge is set up, stitch by stitch, by hand, on the points of a looping machine, stitches exactly opposite in the opening being placed on the same point. The open edges are then fastened together by the machine. This work requires care and nimble fingers and it takes some time to learn to become an expert operator. Each machine requires an operator. This operation is necessary whether the hose was knit by a footer or topper or a "lady hose" knitter. Females are usually employed on this work.

In an underwear factory this operation consists of looping cuffs to the sleeves of shirts and the ankles of drawers, and in a few cases attaching sleeres to shirts. Mills generally, however, sew on these parts rather than loop them.

## MENDERS, FINE, HOSIERY.

This work is performed after the hose has been dyed, boarded, and pressed. It consists of examining the hose and correcting by hand with needle and yarn the little faults disclosed by such inspection. The work is done by women. Pairing is sometimes done in connection.

This work, sometimes termed first mending or white mending, is usually performed next after the hose has been looped. The hose is first stretched over a board shaped like a leg and foot. The mender examines the hose and corrects the defects found, by hand, using a needle and yarn.

## PRESSERS.

Both hosiery and underwear are pressed to give them a smooth finished appearance. Generally the presser receives the hosiery or underwear after they have been piled for pressing by a press hand. The presser places the pile of garments in the press and reinoves the pile of garments when sufficiently pressed and returns it to the press hand. This is heavy work and is always done by men. In some mills the presser also does the work of the press hand, which is described below. The presses are of various kinds, running from the old-style hand lever or screw press to the modern power steam or hydraulic press.

## PRESS HANDS.

Press hands, usually women, lay up the hose or underwear preparatory to pressing and strip out the garments after they have been pressed.

In laying up hose several hose are spread on a large pasteboard, and a pile built up of alternate layers of pasteboard and hose.
In laying up underwear the garment is put on a pasteboard, another board is laid on and the protruding arms of the shirt or legs of the drawers are folded over, and a pile made of alternate layers of pasteboards and garments. The piles are laid up as _igh as can be handled by the presser, who receives the pile from the press hands and puts it on the press.

After being pressed a sufficient time the piles of hosiery or underwear are returned to the press hands, who remove the garments from between the pasteboards.

## SEAMERS, UNDERWEAR.

This term is here used to include cover seamers also, as in many mills the operators work interchangeably. The operators, usually women, use power sewing machines. The seamer receives the parts of the garment from the cutter and stitches them together. The cover seamer then takes the garment and with a double-needle machine runs over the same seams. This operation covers and strengthens the seam. Other terms applied to this work are felling, cannoning, double needling, etc.

## WELTERS.

This is a sewing machine operation also known as hemming. A power machine is used. The tops of stockings and bottoms of undershirts are turned back and stitched. This prevents raveling and gives strength to the top of the stocking and a finish to the shirt. Women usually do this work.

## WINDERS.

Winders operate machines that wind yarn onto cones for the knitting machines. The cones hold from 2 to $3 \frac{1}{2}$ pounds of yarn. The winding machine brushes out knots and the tension reveals weak spots in the yarn by breaking it. From 18 to 24 cones are attended by one person, who sees that the machines work properly, puts on and removes bobbins and cones, and ties breaks in the yarn. Winding is usually done by women.

## EXPLANATION OF TABLES.

This report includes one general table covering the 6 -year peiod, 1907 to 1912, and two general tables covering the 3 -year period, 1910 to 1912, as follows:

Table I.-Average rates of wages per hour and average and classified nominal full-time hours of work per week, in the United States, by years, 1907 to 1912.

Table II.-Average rates of wages per hour and average and classi fied nominal full-time hours of work per week, in each year, by States, 1910 to 1912.

Table III.-Average rates of wages per hour and average and classified nominal full-time hours of work per week, in each State, by yaars, 1910 to 1912.

Table I.-Average rates of wages per hour and average and classified nominal full-time hours of work per week in the Cnited States, by years, 1907 to 1912 ( $p p .91$ to 97 ). -This table summarizes the data concerning rates of wages and nominal full-time hours of work secured from the whole number of establishments furnishing information. For each of the principal occupations-boarders; buttonhole makers, underwear; button sewers, underwear; cutters, hand, underwear; finishers, underwear; folders; inspectors and menders, underwear; knitters, footers or toppers, hosiery; knitters, "lady hose"; knitters, rib, hosiery; knitters, web or tube, underwear; loopers; menders, fine hosiery; menders, rough, hosiery; pressers; press hands; seamers, underwear; welters; and winders-data are shown, as far as available, for each of the six years, 1907 to 1912. Data are not shown for knitters of full-fashioned hosiery, for the reason given on page 72.

The first section of tho table shows for each occupation the number of establishments from which data were secured, number of employees,
average rate of wages per hour, average nominal full-time hours per week, and number of employees under each classified number of nominal full-time working hours per week. The data as to time worked by individual employees paid on a piece basis were not sufficiently satisfactory in many establishments to warrant the presentation of classified rates of wages per hour. The second section of the table shows the per cent of employees under each classified number of nominal full-time working hours per week.
The data for years grouped together by brackets in the table are from identical establishments. As previously explained, exact comparison can be made from year to year only when the establishments compared are identical.

The relative nominal full-time hours per week and the relative rates of wages per hour for 1907 to 1912, shown on pages 74 to 77 , are computed from the averages shown in this table. The method of computing the relatives can best be explained by using an illustration, thus: For male boarders the average nominal full-time hours per week in 8 establishments was 58.4 in 1907 and 58.1 in the same 8 establishments in 1908. The average in 1908 (58.1) was 99.49 per cent of the average (58.4) in 1907. Bulletin No. 77 (July, 1908) shows that, for nominal full-time hours per week for male boarders, the relative was 97.5 in 1907 (average for $1890-1899=100.0$ ). The average nominal full-time hours for 1908 were then reduced to a comparison with the base period (average for 1890 to $1899=100.0$ ) by computing 99.49 per cent of 97.5 , which is 97.0 . The same method was followed in computing the relative rate of wages per hour; the average in 1908 ( $\$ 0.2111$ ) was 96.83 per cent of the average in 1907 ( $\$ 0.2180$ ) ; the relative (average for $1890-1.899=100.0$ ) for 1907 as shown in Bulletin No. 77 was 148.6; and 96.83 per cent of 148.6 is 143.9, or the relative rate of wages per hour in 1908 if the average for 1890 to 1899 is the base or 100.0. In computing for this occupation the relatives for 1911, comparison was made of the data for 33 identical establishments and in computing the relatives for 1912 comparison was made of the data from 32 identical establishments.

Table II.-Average rates of wages per hour and average and classified nominal full-time hours of work per week in each year, by States, 1910 to 1912 (pp. 98 to 106). -This table affords an easy comparison of rates of wages per hour and nominal full-time hours of work per week in the several States. It shows for each of the principal occupations the average rate of wages per hour and the classified nominal full-time hours of work per week. Under each year, 1910 to 1912, or for such of those years as data are available, the data are shown for each of the States represented by any considerable number of employees. As only a limited amount of data was available for the years 1907 to 1909, a tabulation of such data by States was not deemed advisable.

Table 1II.--Average rates of wages per hour and average and classified nominal full-time hours of work per week in each State, by years, 1910 to 1912 (pp. 107 to 112). -This table affords an easy comparison of rates of wages per hour and nominal full-time hours of work per week in the years 1910 to 1912. It shows for each of the principal occupations the average rate of wages per hour and the classified nominal full-time hours of work per week. For each of the more important States in this industry the data are shown for each of the three years, 1910 to 1912, or for such of these years as data are available. As only a limited amount of data was available for the years 1907 to 1909, a tabulation of such data by States was not deemed advisable.

Table I.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912.

## HOSIERY AND KNIT GOODS MANUFACTURING.

[The establishments set opposite each bracketed group of years are identical.]
NUMBER.


Table I.-Average rates of wages per hour and average and CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE CNITED STATES, BY YEARS, 1907 TO 1912-Continued.
HOSIERY AND KNIT GOODS MANUFACTURING-Continued.
NUMBER-Continued.

| Occupation, sex, and number of establishments. | Year. | Num ber of em-ployees. | Average rate of wages per hour. | $\left\lvert\, \begin{gathered} \text { Aver- } \\ \text { age } \\ \text { nom- } \\ \text { inal } \\ \text { full- } \\ \text { time } \\ \text { hours } \\ \text { per } \\ \text { week. } \end{gathered}\right.$ | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Under 48. | $\begin{array}{\|c} \text { Over } \\ 48 \\ \text { and } \\ \text { ander } \\ 51 . \end{array}$ | 51 and under 54. | 54. | Over 54 and under 57. | $\begin{gathered} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}$ | 60. | Over 60 and under 63. |
| Inspectors and menders, underwear, female: 22 establishments... <br> 24 establishments. | 11910 | 615 | \$0.1237 | 57.6 |  |  |  | 11 | 275 | 90 | 212 | 27 |
|  | $\{1911$ | 615 | . 1249 | 57.8 |  |  |  | 23 | 263 | 86 | 221 | 22 |
|  | 11911 | 658 | . 1239 | 57.6 |  |  |  | 23 | 266 | 106 | 241 | 22 |
| establishment | 11912 | 624 | . 1278 | 57.0 |  | 16 |  | 171 | 111 | 99 | 227 |  |
| Knitters, footers or toppers, hosiery male: 4 establishments.... <br> 12 establishments. | 11910 | 152 | . 1359 | 58.2 |  |  |  |  | 67 |  | 85 |  |
|  | 1911 | 133 | .1400 | 58.0 |  |  |  |  | 65 |  | 68 |  |
|  | 1911 | 1.72 | . 1465 | 57.8 |  |  |  |  | 77 | 41 | 54 |  |
|  | 1912 | 209 | . 1576 | 57.5 |  |  |  | 38 | 41 | 48 | 82 |  |
| Knitters, footers or topper: hosiery, female: | (1907 | 154 | . 1234 | 58.1 |  |  |  |  |  | 145 | 9 |  |
| 3 establishments | 1908 | 175 | . 1337 | 58.1 |  |  |  |  |  | 166 | 9 |  |
|  | 1909 | 145 | . 1332 | 58.1 |  |  |  |  |  | 136 | 9 |  |
|  | (1910 | 116 | . 1328 | 56.1 |  |  |  |  | 112 |  | 4 | ..... |
| 32 establishments. | 11910 | 1,851 | . 1213 | 57.5 |  |  | 25 | 89 | 577 | 697 | 463 |  |
|  | 11911 | 1,740 | . 1232 | 57.5 |  |  | 26 | 86 | 510 | 633 | 465 |  |
| 33 establishments | $\{1911$ | 2.174 | . 1348 | 57.2 |  |  | 34 | 86 | 729 | 925 | 400 |  |
| 3s estabnshments | 1912 | 2,208 | . 1376 | 56.1 |  |  | 37 | 294 | 1,114 | 532 | 231 | -..... |
| Knitters, "lady hose," male: 12 establishments... |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\{1910$ | 235 | .1746 | 57.6 |  |  |  | 8 | 61 | 128 | 38 |  |
|  | 1911 | 220 | . 1753 | 57.4 |  |  |  | 8 | 65 | 122 | 25 | -..... |
| - 13 establishments. | $\{1911$ | 215 | . 1757 | 57.4 |  |  |  | 8 | 67 | 115 | 25 |  |
|  | (1912 | 278 | . 1895 | 56.0 |  |  |  | 86 | 110 | 55 | 27 | …. |
| Knitters, "lady hose," female: 12 establishments... | 1910 | 27 | . 1540 | 56.2 |  |  |  | 47 | 111 | 96 | 23 |  |
|  | \{1911 | 260 | . 1557 | 56.2 |  |  |  | 49 | 104 | 82 | 25 |  |
| 11 establishments | 1911 | 252 | . 1615 | 55.8 |  |  | 10 | 49 | 104 | 82 | 7 |  |
|  | 11912 | 269 | . 1852 | 54.9 |  |  | 10 | 63 | 183 | 5 | 8 |  |
| Knitters, rib, hosiery, male: <br> 17 establishments | $\{1910$ | 55 47 | .1992 | 56.6 |  |  |  | 4 | 31 95 | 9 | 11 |  |
|  | (1911 | 47 | . 1996 | 56.5 |  |  |  | 5 | 25 | 9 | 8 |  |
|  | 1911 | 92 | . 1892 | 57.3 |  |  |  |  | 23 | 54 | 10 |  |
|  | 1912 | 86 | . 2004 | 56.4 |  |  |  | 11 | 33 | 35 | 7 |  |
| Knitters, rib, hosiery, female: <br> if establishments... | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | 49 | . 1299 | 57. 4 |  |  | 1 |  | 17 | 18 | 13 |  |
|  | [1911 | 38 | . 1520 | 57.6 |  |  | 1 |  | 12 | 13 | 12 |  |
| 13 establishment | \{1911 | 45 | . 1473 | 57.1 |  |  | 3 |  | 12 | 23 | 7 |  |
| 13 establishme | 1912 | 52 | . 1440 | 55.1 |  |  | 13 | 1 | 30 | 4 | 4 |  |
| Knitters, web or tube, underwear, male: <br> 4 establishments. | 1907 | 101 | . 2194 | 58.5 |  |  |  |  |  | 74 | 27 |  |
|  | 1908 | 107 | . 2087 | 58.3 |  |  |  |  |  | 89 | 18 |  |
|  | 1909 | 110 | . 2131 | 58.5 |  |  |  |  |  | 84 | 26 |  |
|  | 1910 | 100 | . 2135 | 57.0 |  |  |  |  | 74 |  | 26 | -..... |
| 14 establishments. | ¢1910 | 212 | . 2012 | 58.0 |  |  |  |  | 106 | 23 | 69 | 14 |
|  | 01911 | 209 | . 2153 | 58.1 |  |  |  |  | 99 | 22 | 72 | 16 |
| 22 establishments. | $\{1911$ | 253 | . 2111 | 57.9 |  |  |  | 16 | 105 | 26 | 90 | 16 |
|  | 11912 | 261 | . 2273 | 57.0 |  | 1 |  | 74 | 58 | 24 | 104 |  |

Table I.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND OLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912-Continued.

HOSIERY AND KNIT GOODS MANUFACTURING--Continued.
NUMBER-Continued.

table I.-AVERAGE Rates of wages PER hour and average and OLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912-Continued.

## HOSIERY AND KNIT GOODS MANUFACTURING--Continued.

NUMBER-Concluded.

| Occupation, sex, and number of establishments. | Year. | $\begin{gathered} \text { Num- } \\ \text { ber } \\ \text { of } \\ \text { em- } \\ \text { ploy. } \\ \text { ees. } \end{gathered}$ | Average rate of wages per hour. | Aver-agenom-inalfull-timehoursperweek. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Under 48. | $\begin{gathered} \text { Over } \\ 48 \\ \text { and } \\ \text { ander } \\ 51 . \end{gathered}$ | 51 and under 54. | 54. | Over 54 and under 57. | $\begin{array}{\|c\|} \hline 57 \\ \text { and } \\ \text { under } \\ 60 . \end{array}$ | 60. | Over 60 and under 63. |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 establish | 1908 | 426 | . 1564 | 58.5 |  |  |  |  |  | 323 | 103 |  |
| 5 establishm | 1909 | 439 | . 1576 | 58.6 |  |  |  |  |  | 307 | 132 |  |
|  | 1910 | 433 | . 1436 | 57.2 |  |  |  |  | 298 |  | 135 |  |
| 23 establishments. | ¢1910 | 1,181 | . 1429 | 57.8 |  |  |  | 22 | 524 | 163 | 408 | 64 |
| 23 establishments. | (1911 | 1,197 | . 1417 | 58.0 |  |  |  | 28 | 508 | 149 | 453 | 59 |
| 27 establishments | $\{1911$ | 1,280 | . 1411 | 58.1 |  |  |  | 28 | 514 | 170 | 509 | 59 |
|  | (1912 | 1,265 | . 1501 | 57.6 |  | 14 |  | 330 | 162 | 205 | 554 | . . . . |
| Welters, female: |  |  |  |  |  |  |  |  |  |  |  |  |
| 23 establishments. | $\{1910$ | 250 | . 1205 | 57.6 |  |  |  | 2 | 107 | 76 | 65 | ...... |
| 23 estabishments | \1911 | 282 | . 1250 | 57.6 |  |  |  | 3 | 122 | 80 | 77 |  |
| 23 establishments. | $\{1911$ | 288 | . 1272 | 57.4 |  |  |  | 3 | 135 | 92 | 58 |  |
| 23 establishments.... | 1912 | 303 | . 1437 | 56.1 |  |  | 2 | 110 | 99 | 25 | 67 | . |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| - 6 establishments. | 1908 | 276 | . 1625 | 58.7 |  |  |  |  |  | 177 | 99 |  |
|  | 1909 | 262 | . 1515 | 58.6 |  |  |  |  |  | 177 | 85 |  |
|  | 1910 | 276 | . 1492 | 57.5 |  |  |  |  | 172 |  | 104 |  |
| 38 establishments. | ¢1910 | 1,020 | . 1292 | 58.0 |  |  | 1. |  | 411 | 243 | 246 | 119 |
|  | $(1911$ | 960 | . 1318 | 57.9 |  |  | 1 |  | 411 | 217 | 254 | 77 |
| 45 establishments. | (1911 | 1,001 | . 1302 | 57.8 |  |  | 2 | 12 | 408 | 250 | 252 | 77 |
|  | \{1912 | 982 | . 1400 | 56.4 |  | 15 | 2 | 265 | 311 | 115 | 274 |  |

PER CENT.

| Boarders, male: |  |
| :---: | :---: |
|  | $\left\{\begin{array}{l}1907 \\ 1908\end{array}\right.$ |
| 8 establishment | 1909 |
|  | 1910 |
| 33 establishments | $\{1910$ |
| 33 establishments | $\{1911$ |
| 32 establishments | $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ |
| Buttonhole makers, female: |  |
| 21 establishments.... | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ |
| 27 establishments | $\{1911$ |
| Bution sewers, female: |  |
| 21 establishments. | $\{1910$ |
|  | 1911 |
| 27 establishments | $\{1911$ |
| Cutters, hand, underwear, male: |  |
| 12 establishments.... | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ |
| 18 establishm | $\{1911$ |



Table I.-AVERAGE Rates of Wages PER HoUR and average and CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912-Continued.
HOSIERY AND KNIT GOODS MANUFACTURING-Continued.
PER CENT-Continued.


Table I.-AVERAGE RATES of wages PER HOUR AND AVERAGE AND rLASSIFIED NOMINAL FULI-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912--Continued.

## HOSIERY AND KNIT GOODS MANUFACTURING-Continued.

PER CENT-Continued.

| Occupation, sex, and number of establishments. | Year. | $\begin{array}{\|c} \text { Num- } \\ \text { ber } \\ \text { of } \\ \text { em- } \\ \text { ploy- } \\ \text { ees. } \end{array}$ | Average rate of wages per hour. | Average nominal fulltime hours per week. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Un. der 48. | $\left\lvert\, \begin{gathered} \text { Over } \\ 48 \\ \text { and } \\ \text { inder } \\ 51 . \end{gathered}\right.$ | 51 and under 54. | 54. | Over 54 and under 57. | and under 60. | 60. | $\begin{array}{\|c} \text { Over } \\ 60 \\ \text { and } \\ \text { under } \\ 63 . \end{array}$ |
| ```Knitters "lady hose," female: 12 establishments... 11 establishments...``` |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\{1910$ | $27 \%$ | \$0.1540 | 56.2 |  |  |  | 17.0 | 40.1 | 34.7 | 8.3 |  |
|  | \{1911 | 260 | . 155 | 56.2 |  |  |  | 18.8 | 40.0 | 31.5 | 9.6 |  |
|  | $\{1911$ | 252 | . 1615 | 55.8 |  |  | 4.0 | 19.4 | 41.3 | 32.5 | 2.8 |  |
| Knitters, rib, hosiery, male: | 11912 | 269 | . 1852 | 54.9 |  |  | 3.7 | 23.4 | 68.0 | 1.9 | 3.0 |  |
| 17 establishments.... | $\{1910$ | 55 | . 1992 | 56.6 |  |  |  | 7.3 | 56.4 | 16.4 | 20.0 |  |
|  | $\{1911$ | 47 | . 1996 | 56.5 |  |  |  | 10.6 | 53.2 | 19.1 | 17.0 |  |
| 21 establish | $\{1911$ | 92 | . 1892 | 57.3 |  |  |  | 5.4 | 25.0 | 58.7 | 10.9 |  |
| Knitters, rib, hosiery, female: | \{1912 | 86 | . 2004 | 56.4 |  |  |  | 12.8 | 38.4 | 40.7 | 8.1 |  |
| 14 establishments.... | $\{1910$ | 49 | . 1299 | 37.4 |  |  | 2.0 |  | 34.7 | 36.7 | 26.5 |  |
|  | 1911 | 38 | . 1520 | 57.6 |  |  | 2.6 |  | 31.6 | 34.2 | 31.6 |  |
| 13 establishments | $\{1911$ | 45 | .1473 | 57.1 |  |  | 6.7 |  | 26.7 | 51.1 | 15.6 |  |
| Knitters, web or tube, underwear, male: | $\{1912$ | 52 | . 1443 | 50. 1 |  |  | 25.0 | 1.9 | 57.7 | 7.7 | 7.7 | -.... |
|  | $\{1907$ | 101 | . 2194 | 78.5 |  |  |  |  |  | 73.3 | 26.7 |  |
| 4 establishments. | 1908 | 107 | . 2087 | 58.3 |  |  |  |  |  | 83.2 | 16.8 |  |
|  | 1909 | 110 | . 2131 | 58. 5 |  |  |  |  |  | 76.4 | 23.6 |  |
| 14 establishmonts. | (1910 | 100 | . 2135 | 57.0 |  |  |  |  | 74.0 |  | 26.0 |  |
|  | $\{1910$ | 212 | . 2012 | 58.0 |  |  |  |  | 50.0 | 10.8 | 32.5 | 6.6 |
|  | 1911 | 209 | . 2153 | 38.1 |  |  |  |  | 47.4 | 10.5 | 34.4 | 7.7 |
| 22 establishments | 1911 | 253 | . 2111 | 57.9 |  |  |  | 6.3 | 41.5 | 10.3 | 35.6 | 6.3 |
| 22 establishments | \{1912 | 261 | . 2273 | 57.0 |  | 0.4 |  | 28.4 | 22.2 | 9.2 | 39.8 |  |
| Knitters, web or tube, underwear, female: | 1907 | 101 | . 1433 | 58.3 |  |  |  |  |  | 85.1 | 14.9 |  |
| 3 cstabli | 1908 | 113 | . 1448 | 58.4 |  |  |  |  |  | 78.8 | 21.2 |  |
|  | 1909 | 109 | . 1316 | 58.5 |  |  |  |  |  | 77.1 | 22.9 |  |
| 16 establishments | 1910 | 96 | . 1477 | 56.9 |  |  |  |  | 78.1 |  | 21.9 |  |
|  | 11910 | 245 | . 1721 | 57.4 |  |  |  |  | 59.2 | 18.0 | 17.1 | 5.7 |
|  | 1911 | 205 | . 1636 | 57.0 |  |  |  |  | 63.4 | 17.1 | 17.6 | 2.0 |
| 19 establishments | \{1911 | 216 | . 1618 | 56.9 |  |  |  | 1.4 | 63.9 | 16. 2 | 16.7 | 1.9 |
|  | (1912 | 181 | . 1352 | 55.4 |  | 7.7 |  | 42.5 | 19.3 | 14.9 | 15.5 |  |
| Loopers, female: | (1907 | 610 | . 1403 | 58.4 |  |  |  |  |  | 73.1 | 26.9 |  |
| 9 establishments | 1908 | 637 | . 1279 | 58.2 |  |  |  |  |  | 84.6 | 15.4 |  |
|  | 1909 | 603 | . 1385 | 58.2 |  |  |  |  |  | 84.1 | 15.9 |  |
|  | 1910 | 582 | . 1389 | 57.5 |  |  |  |  | 34.7 | 47.6 | 17.7 |  |
| 43 establishments | ¢1910 | 2,013 | . 1326 | 57.3 |  |  | . 2 | 2.4 | 39.7 | 37.7 | 19.9 |  |
|  | \{1911 | 1,904 | . 1293 | 57.3 |  |  | . 4 | 3.5 | 38.6 | 37.9 | 19.7 |  |
|  | 1911 | 2,089 | . 1343 | 57.1 |  |  | . 6 | 3.2 | 36.8 | 44.2 | 15.2 |  |
| 44 establish | (1912 | 2, 262 | . 1459 | 56.1 |  |  | . 5 | 21.5 | 45.1 | 18.3 | 14.1 |  |
| Menders, fine, hosiery, female: |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $(1907$ | 112 | . 1446 | 58.5 57 |  |  |  |  |  | 71.4 | 28.6 |  |
| 8 establishments | $\left\{\begin{array}{l}1908 \\ 1909\end{array}\right.$ | 132 115 | . 1324 | 57.9 57.8 |  |  |  |  |  | 98.5 98.3 | 1.5 1.7 | ....... |
|  | 11910 | 110 | . 1375 | 57.5 |  |  |  |  | 20.0 | 79.1 | . 9 |  |
| 30 establishments. | 1910 | 385 | . 1320 | 57.2 |  |  | 1.3 | 3.6 | 35.3 | 47.0 | 12.7 |  |
|  | \{1911 | 399 | . 1342 | 57.2 |  |  | 1.3 | 3.8 | 39.1 | 38.8 | 17.0 | ...... |
| 27 establishments | 1911 | 359 | . 1344 | 57.2 |  |  | 1.9 | 4.2 | 35.4 | 42.1 | 16.4 |  |
|  | '1912 | 297 | . 1382 | 55.6 |  |  | 1.7 | 35.4 | 42.1 | 4.1 | 16.5 | ...... |

Table I.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1912-Concluded.

## HOISERY AND KNIT GOODS MANUFACTURING-Continued.

PER CENT-Concluded.

| Occupation, sex, and number of establishments. | Year. | $\begin{array}{\|c} \text { Num- } \\ \text { berr } \\ \text { of } \\ \text { em- } \\ \text { ploy- } \\ \text { ees. } \end{array}$ | Average rate of wages per hour. | Average nominal fulltime hours per week. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Under 48. | $\begin{gathered} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}$ | $\begin{gathered} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}$ | 54. | $\begin{gathered} \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}$ | 57 and under 60. | 60. | Over 60 and under 63. |
| Menders, rough, hosiery, female: |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 establishments | 1907 | 147 | \$0.1108 | 58.4 |  |  |  |  |  | 78.9 | 21.1 |  |
|  | 1908 | 134 | . 1260 | 58.3 |  |  |  |  |  | 83.6 | 16. 4 |  |
|  | 1909 | 123 | . 1276 | 58.4 |  |  |  |  |  | 81.3 | 18.7 | ...... |
|  | 1910 | 122 | . 1216 | 57.5 |  |  |  |  | 45.1 | 32.8 | 22.1 |  |
| 29 establishments.... | ¢1910 | 704 | . 1219 | 57.0 |  |  | . 9 | 3.6 | 50.7 | 20.6 | 24.3 |  |
|  | 1911 | 648 | . 1225 | 57.0 |  |  | . 8 | 3.5 | 50.2 | 22.7 | 22.8 |  |
| 30 establishments | $\{1911$ | 728 | . 1318 | 56.9 |  |  | 1.9 | 3.2 | 45.6 | 34.6 | 14.7 |  |
| I'ressers, male: | $\{1912$ | 681 | . 1409 | 56.4 |  |  | 1.8 | 16.7 | 40.1 | 25.6 | 15.9 |  |
|  | 1907 | 32 | . 1910 | 59.3 |  |  |  |  |  | 37.5 | 62.5 |  |
|  | 1908 | 35 | . 1670 | 59.2 |  |  |  |  |  | 45.7 | 54.3 |  |
|  | $\{1909$ | 40 | . 1714 | 59.1 |  |  |  |  |  | 47.5 | 52.5 |  |
|  | 1910 | 33 | . 1850 | 58.9 |  |  |  |  |  | 54.5 | 45.5 |  |
| 34 establishments | $\{1910$ | 155 | . 1774 | 58.0 |  |  |  | 1.3 | 31.6 | 25.2 | 38.7 | 3.2 |
|  | 1911 | 151 | . 18.56 | 58.0 |  |  |  | 1.3 | 31.8 | 23.8 | 39.7 | 3.3 |
| 33 establishments | $\{1911$ | 151 | . 1874 | 57.7 |  |  |  | 1.3 | 40.4 | 19.2 | 35.8 | 3.3 |
| Press hands, female: | (1912 | 157 100 | .1946 .1188 | 56.8 |  | 3.8 |  | 6.4 | 47.8 | 6.4 100.0 | 35.0 | 6 |
|  | $\left\{\begin{array}{l}1907 \\ 1908\end{array}\right.$ | 100 | . 1188 | 58.0 58.0 |  |  |  |  |  | 100.0 |  |  |
| 2 establishments. | 19 | 107 | . 1182 | 58.0 58.0 |  |  |  |  |  | 100.0 |  |  |
|  | 1910 | 94 | . 1281 | 56.0 |  |  |  |  | 100.0 | 100.0 |  |  |
| 13 establishments.... | $\{1910$ | 207 | . 1186 | 57.7 |  |  |  | 1.9 | 48.3 | 21.7 | 21.7 | 6.3 |
|  | 1911 | 208 | . 1183 | 57.5 |  |  |  | 2.4 | 53.4 | 15.9 | 25.0 | 3.4 |
| 12 establishments | $\{1911$ | 196 | . 1140 | 56. 5 |  |  |  | 2. 6 | 55.1 | 11.2 | 27.6 | 3.6 |
| 12 establishments. | \{1912 | 206 | . 1198 | 55.8 |  |  |  | 46.1 | 23.8 | 5.8 | 24.3 | .... |
| Seamers, underwear, female: | $(1907$ | 390 | . 1443 | 58.6 |  |  |  |  |  | 69.0 | 31.0 |  |
|  | 11908 | 426 | . 1564 | 58.5 |  |  |  |  |  | 69.0 75.8 | 31.0 24.2 |  |
| 23 establishments. | 1909 | 439 | . 1576 | 58.6 |  |  |  |  |  | 69.9 | 30.1 | ...... |
|  | 1910 | 433 | . 1436 | 57.2 |  |  |  |  | 68.8 |  | 31.2 |  |
|  | $\{1910$ | 1,181 | . 1429 | 57.8 |  |  |  | 1.9 | 44.4 | 13.8 | 34.5 | 5.4 |
|  | \{1911 | 1, 197 | . 1417 | 58.0 |  |  |  | 2.3 | 42.4 | 12.4 | 37.8 | 4.9 |
| 27 establishmen | $\{1911$ | 1,280 | . 1411 | 58.1 |  |  |  | 2.2 | 40.2 | 13.3 | 39.8 | 4.6 |
| Welters, female: | $\{1912$ | 1, 265 | . 1501 | 57.6 |  | 1.1 |  | 26.1 | 12.8 | 16.2 | 43.8 |  |
|  | $\{1910$ | 250 | . 1205 | 57.6 |  |  |  | . 8 | 42.8 | 30.4 | 26.0 |  |
| 23 establishments | $\{1911$ | 282 | . 1250 | 57.6 |  |  |  | 1.1 | 43.3 | 28.4 | 27.3 | .- |
|  | /1911 | 288 | . 1272 | 57.4 |  |  |  | 1.0 | 46.9 | 31.9 | 20.1 |  |
| Winders, female: | 11912 | 303 | . 1437 | 56. 1 |  |  | 7 | 36.3 | 32.7 | 8.3 | 22.1 |  |
|  | (1907 | 266 | . 1403 | 78.8 |  |  |  |  |  | 62.4 | 37.6 |  |
| 6 establishments | 1908 | 276 | . 1625 | 58.7 |  |  |  |  |  | 64.1 | 35.9 |  |
|  | 1909 | 262 | . 1515 | 58.6 |  |  |  |  |  | 67.6 | 32.4 |  |
|  | 1910 | 276 | . 1492 | 57.5 |  |  |  |  | 62.3 |  | 37.7 | ...... |
| 38 establishments. | $\{1910$ | 1,020 | . 1292 | 58,0 |  |  | . 1 |  | 40.3 | 23.8 | 24.1 | 11.7 |
|  | $\{1911$ | 960 | . 1318 | 57.9 |  |  | . 1 |  | 42.8 | 22.6 | 26.5 | 8.0 |
| 45 establishmeats. | $\{1911$ | 1,001 | . 1302 | 57.8 |  |  | . 2 | 1.2 | 40.8 | 25.0 | 25.2 | 7.7 |
|  | \{1912 | 982 | . 1400 | 56.4 |  | 1.5 | . 2 | 27.0 | 31.7 | 11.7 | 27.9 | ... |

$7446^{\circ}-$ Bull. $134-13-7$

Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIEIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EAOH YEAR, BY STATES, 1910 TO 1912.

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.
BOARDERS, MALE.

| Year and State. | $\begin{aligned} & \text { Num- } \\ & \text { ber of } \\ & \text { estab- } \\ & \text { lish- } \\ & \text { ments. } \end{aligned}$ | Number of ployees. | $\begin{aligned} & \text { Aver- } \\ & \text { age } \\ & \text { rate of } \\ & \text { wages } \\ & \text { per } \\ & \text { hour. } \end{aligned}$ | Aver-agenomi-nalfull-timehoursperweek. | Employees whase nominal full-time working hours per week were- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{aligned} & \text { Un- } \\ & \text { der } \\ & 48 . \end{aligned}$ | $\left\|\begin{array}{c} \text { over } \\ \text { 48d } \\ \text { ander } \\ \text { und. } \end{array}\right\|$ | $\begin{gathered} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}$ | 54. | $\left\lvert\, \begin{gathered} \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}\right.$ | $\begin{gathered} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}$ | 60. | Over 60 and under 63. |
| 1910. |  |  |  |  |  |  |  |  |  |  |  |  |
| Georgia. | 3 | 41 | 80.1428 | 58.5 |  |  |  |  | 12 |  | 29 |  |
| Massachusetts. | 3 | 223 | . 1906 | 56.0 |  |  |  |  | 223 |  |  |  |
| North Carolina | 4 | 81 | . 1465 | 60.0 |  |  |  |  |  |  | 81 |  |
| Pennsslyania | 8 | $\stackrel{213}{49}$ | . 22318 | 57.6 55 |  |  |  |  | 30 | 183 |  |  |
| Otheorsin... | 13 | 201 | . 131848 | 55.5 |  |  | 5 | 29 | $\stackrel{49}{83}$ | 56 | 28 |  |
| Total. | 33 | 808 | . 1926 | 57.0 |  |  | 5 | 29 | 397 | 239 | 138 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Georgia.... | 3 | 58 | .1321 | 58.5 |  |  |  |  | 27 | 22 | 27 |  |
| Massachusetts. | 3 | 227 | . 1870 | 56.0 |  |  |  |  | 227 |  |  |  |
| North Carolina | 4 | 83 | . 1516 | 59.5 |  |  |  |  | 8 |  | 75 |  |
| Pennsylyania | 8 | 224 | . 2142 | 57.8 |  |  |  |  | 16 | 208 |  |  |
| Wisconsin... Other States | ${ }_{12}^{2}$ | 64 213 | .2377 .1806 | 5i5.0 |  |  | 7 | 38 | 64 111 | 36 | 21 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total. | 32 | 869 | . 1391 | 56.9 |  |  | 7 | 38 | 435 | 266 | 123 |  |
| Georgia.. | 3 | 62 | . 1456 | 58.5 |  |  |  |  | 8 | 27 | 27 |  |
| Massachusetts.. | 3 | 273 | . 2164 | 54.0 |  |  |  | 273 |  |  |  |  |
| North Carolina. | 4 | 89 | . 1669 | 59.7 |  |  |  |  | 5 |  | 84 |  |
| Pennsylvania | 2 | 280 69 | . 2482 |  |  |  |  |  | 280 |  |  |  |
| Wisconsin.... Other States. | ${ }_{12}^{2}$ | 69 186 | .2589 .2032 | 55.0 55.9 |  | 2 | 4 | 34 | 69 92 | 39 | 15 |  |
| Total.. | 32 | 959 | . 2173 | 55.6 |  | 2 | 4 | 307 | 454 | 66 | 126 |  |

BUTTONHOLE MAKERS, UNDERWEAR: FRMALE.


Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912-Continued.

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.
BUTTON SEWERS, UNDERWEAR: FEMALE.

| Year and State. | Number of estab-lishments. | Number of employess. | Average rate of wages per hour. | A verage nominal fulltime hours per week. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Under 48. | $\begin{gathered} \text { Over } \\ 48 \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}$ | $\begin{gathered} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}$ | 54. | Over 54 and under 57. | $\begin{array}{\|c} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{array}$ | 60. | $\begin{array}{\|c} \text { Over } \\ 60 \\ \text { and } \\ \text { under } \\ 63 . \end{array}$ |
| 1910. |  |  |  |  |  |  |  |  |  |  |  |  |
| New York. | 11 | 82 | \$0.1539 | 59.6 |  |  |  |  | 11 | 9 | 54 | 8 |
| Other States | 10 | 77 | . 1437 | 56.5 |  |  |  | 2 | 54 | 17 | 4 |  |
| Total | 21 | 159 | . 1490 | 58.1 |  |  |  | 2 | 65 | 26 | 58 | 8 |
| New York: | 16 | 102 | . 1461 | 59.6 |  |  |  |  | 12 | 11 | 68 | 11 |
| Other States. | 11 | 69 | . 1452 | 56.4 |  |  |  | 4 | 45 | 17 | 3 |  |
| Total. | 27 | 171 | . 1457 | 58.2 |  |  |  | 4 | 57 | 28 | 71 | 11 |
| New York | 16 | 111 | . 1499 | 58.7 |  |  |  |  | 26 | 10 | 75 |  |
| Other States | 11 | 71 | . 1427 | 54.8 |  | 5 |  | 38 | 12 | 16 |  |  |
| Total. | 27 | 182 | . 1471 | 57.2 |  | 5 |  | 38 | 38 | 26 | 75 |  |

CUTTERS, HAND, UNDERWEAR: MATE.

| $1910 .$ <br> New York. Other States.. | 9 3 | 126 | $\begin{array}{r} \$ 0.2118 \\ \quad .3734 \end{array}$ | 59.4 58.5 |  |  |  |  | 32 | 12 3 | 55 | 27 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | 12 | 130 | . 2168 | 59.3 |  | ..... |  |  | 32 | 15 | 56 | 27 |
| Now York. | 11 | 123 | . 2236 | 59.0 |  |  |  |  | 37 | 16 | 56 | 14 |
| Other States | 7 | 15 | . 2508 | 55.9 |  |  |  |  | 11 | 3 | 1 |  |
| Total. | 18 | 138 | . 2265 | 58.6 |  |  |  |  | 48 | 19 | 57 | 14 |
| New York | 11 | 140 | . 2072 | 59.1 |  |  |  |  | 22 | 13 | 105 |  |
| Other States | 7 | 22 | . 2283 | 55.5 |  |  |  | 5 | 12 | 4 | 1 |  |
| Total. | 18 | 162 | . 2156 | 58.6 | $\cdots$ |  |  | 5 | 34 | 17 | 106 |  |

FINISHERS, UNDERWEAR: FEMALE.


Table II.-AVERAGE RATES OF WaGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912-Continued.

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.
FINISHERS, UNDERWEAR: FEMALE-Concluded.


FOLDERS: FEMALE.


INSPECTORS AND MENDERS, UNDERWEAR: FEMAYE.

| 1910. New York.... Other States. | 12 | 324 291 | $\$ 0.1288$ .1180 | 59.2 55.8 |  |  | $\cdots{ }^{11}$ | 65 210 | 46 44 | 186 26 | 27 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total. | 22 | 615 | . 1237 | 57.6 |  |  | 11 | 275 | 90 | 212 | 27 |

Table II.-AVERage rates of wages per hour and average and CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912-Continued.

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.
INSPECTORS AND MENDERS, UNDERWEAR: FEMALE-Continued.

| Year and.State. | Number of estab-lishments. | Number of employees. | Average rate of wages per hour. | $\begin{gathered} \text { Aver- } \\ \text { age } \end{gathered}$ | Employees whose nominal full-time working houss per week were- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | fulltime hours per week. | Under 48. | Over 48 and under 51. | 51 and under 54. | 54. | Over 54 and under 57. | $\left\lvert\, \begin{gathered} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}\right.$ | 60. | $\begin{gathered} \text { Over } \\ 60 \\ \text { and } \\ \text { under } \\ 63 . \end{gathered}$ |
| 1911. |  |  |  |  |  |  |  |  |  |  |  |  |
| New York. | 15 | 358 | \$0. 1298 | 59.3 |  |  |  |  | 55 | 66 | 215 | 22 |
| Other States | 9 | 300 | . 1168 | 56.3 |  |  |  |  | 211 | 40 | 26 |  |
| Total | 24 | 658 | . 1239 | 57.6 |  |  |  | 23 | 266 | 106 | 241 | 22 |
| 1912. |  |  |  |  |  |  |  |  |  |  |  |  |
| New York. | 15 | 333 | . 1296 | 58.9 |  |  |  |  | 59 | 50 | 224 |  |
| Other States | 9 | 291 | . 1258 | 55.0 |  | 16 |  | 171 | 52 | 49 | 3 | ...... |
| Total. | 24 | 624 | . 1278 | 57.0 |  | 16 |  | 171 | 111 | 99 | 227 |  |

KNITPERS, FOOTERS OR TOPPERS, HOSIERY: FEMALE.


Table 1I.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EAOH YEAR, BY STATES, 1910 TO 1912-Continued.

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.
KNITTERS, "LADY HOSE": MALE.


KNITNERS, "LADY HOSE": FEMALE.


KNITTERS, WEB OR TUBE, UNDERWEAR: MALE.


Tabae II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND (LASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN E.IOII YEAR, BY STATES, 1910 TO 1912-Continued.

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.
ENITSTERS, WEB OR TUBE, UNDERWEAR: MALE—Concluded.


LOOPERS: FEMATE.


Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY STATES, 1910 TO 1912-Continued.

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.
MENDERS, FINE, HOSIERY: FEMALE.

| Year and State. | $\begin{gathered} \text { Num- } \\ \text { ber of } \\ \text { estab- } \\ \text { lish- } \\ \text { ments. } \end{gathered}$ | Number of employees. | Average rate of wages per hour. | Aver age nominal fulltime hours per week. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Under 48. | Over 48 and under 51. | 51 and under 54. | 54. | Over 54 and ander 57. | 57 and under 60. | 60. | $\begin{array}{\|c} \text { Over } \\ 60 \\ \text { and } \\ \text { under } \\ 63 . \end{array}$ |
| 1910. |  |  |  |  |  |  |  |  |  |  |  |  |
| Massuchusetts. | 3 | 73 | \$0. 1405 | 56.0 |  |  |  |  | 73 |  |  |  |
| Pennsylvania. | 9 | 171 | . 1409 | 57.6 |  |  |  |  | 17 | 150 | 4 |  |
| Other States | 18 | 141 | . 1168 | 57.3 |  |  | 5 | 14 | 46 | 31 | 45 |  |
| Total | 30 | 385 | . 1320 | 57.2 | ...... |  | 5 | 14 | 136 | 181 | 49 |  |
| Massachusetts. | 3 | 86 | . 1247 | 56.0 |  |  |  |  | 86 |  |  |  |
| Pennsylrania | 8 | 155 | . 1577 | 57.7 |  |  |  |  | 9 | 143 | 3 |  |
| Other States | 16 | 118 | . 1108 | 57.4 |  |  | 7 | 15 | 32 | 8 | 56 |  |
| Total | 27 | 359 | . 1344 | 57.2 |  |  | 7 | 15 | 127 | 151 | 59 |  |
| Massachusetts. | 3 | 82 | . 1316 | 54.0 |  |  |  | 82 |  |  |  |  |
| Pennsylvania. | 8 | 110 | . 1542 | 55.2 |  |  |  |  | 103 | 7 |  |  |
| Other States.. | 16 | 105 | . 1267 | 57.3 |  |  | 5 | 23 | 22 | 6 | 49 |  |
| Totai | 27 | 297 | . 1382 | 55.6 |  |  | 5 | 105 | 125 | 13 | 49 | -..... |

MENDERS, ROUGH, HOSIERY: FEMALE.


Table II.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EAC'H YEAR, BY STATES, 1910 TO 1912-Continued.

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.
SEAMERS, UNDERWEAR: FEMALE.


WELTERS : FEMALE.


Tabe II. AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND OTASSICIED NOMINAI FULL-TIME HOURS OF WORK PER WEEK IN EACH YEAR, BY S'TA'TES, 1910 TO 1912-Concluded.

## HOSIERY AND KNIT GOODS MANUFACTURING-Continued.

WINDERS: FEMALE.

| Year and State. | Number of estab-lishments. | Number of employees. | Averare rate of wages per hour. | $\begin{gathered} \text { A ver- } \\ \text { age } \\ \text { nomi- } \\ \text { nal } \\ \text { full- } \\ \text { time } \\ \text { hours } \\ \text { per } \\ \text { week. } \end{gathered}$ | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Under 48. | $\left\lvert\, \begin{gathered} \text { Over } \\ 48 \\ \text { and } \\ \text { ander } \\ 51 . \end{gathered}\right.$ | $\left.\begin{array}{\|c\|} 51 \\ \text { and } \\ \text { inder } \\ 54 . \end{array} \right\rvert\,$ | 54. | $\begin{gathered} \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}$ | $\begin{gathered} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}$ | 60. | $\begin{gathered} \text { Over } \\ 60 \\ \text { and } \\ \text { under } \\ 63 . \end{gathered}$ |
| 1910. |  |  |  |  |  |  |  |  |  |  |  |  |
| Connecticut. | 4 | 58 | \$0.1331 | 57.2 |  |  |  |  | 23 | 27 | 8 | - .... |
| Massachusetts | 3 | 233 | . 1249 | 56.0 |  |  |  |  | 233 |  |  |  |
| New York. | 11 | 390 | . 1416 | 60.0 |  |  |  |  | 40 | 45 | 186 | 119 |
| Pennsylvania | 8 | 175 | . 1225 | 57.5 |  |  |  |  | 32 | 139 | 6 |  |
| Other States. | 12 | 162 | . 1113 | 57.1 |  |  | 1 |  | 83 | 32 | 46 |  |
| Total. | 38 | 1,030 | . 1292 | 58.0 |  |  | 1 |  | 411 | 243 | 246 | 119 |
| Connecticut | 3 | 47 | . 1310 | 57.1 |  |  |  |  | 20 | 19 | 8 |  |
| Massachusetts | 3 | 233 | . 1259 | 56.0 |  |  |  |  | 233 |  |  |  |
| New York.. | 13 | 348 | . 1465 | 60.0 |  |  |  |  | 17 | 41 | 213 | 77 |
| Pennsylvania. | 19 | 188 | . 1167 | 57.6 |  |  |  |  | 30 | 153 | 5 |  |
| Other States. | 16 | 185 | . 1185 | 56.3 |  |  | 2 | 12 | 108 | 37 | 26 |  |
| Total. | 45 | 1,001 | . 1302 | 57.8 |  |  | 2 | 12 | 408 | 250 | 252 | 77 |
| Connecticat. | 3 | 44 | . 1379 | 55.8 |  | 15 |  |  |  | 18 | 11 |  |
| Massachusetts | 3 | 229 | . 1336 | 54.0 |  |  |  | 229 |  |  |  |  |
| New York. | 13 | 367 | . 1518 | 58.4 |  |  |  |  | 109 | 16 | 242 |  |
| Pernnsylvania. | 10 | 200 | . 1328 | 55.7 |  |  |  |  | 157 | 43 |  |  |
| Other States. | 16 | 142 | .1276 | 56.3 |  |  | 2 | 30 | 45 | 39 | 21 |  |
| Total. | 45 | 982 | . 1400 | 56.4 |  | 15 | 2 | 265 | 311 | 115 | 274 |  |

WAGES AND HOURS OF LABOR, 1890 TO 1912—KNIT GOODS. 107
Table III.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1910 TO 1912.

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.
[The establishments set opposite each bracketed group of years are identical.]

| Occupation, State, and number of establishments. | Year. | $\begin{gathered} \text { Num- } \\ \text { ber } \\ \text { of } \\ \text { em- } \\ \text { ploy- } \\ \text { ees. } \end{gathered}$ | Average rate of wages per hour. | Aver-agenomi-nalfull-timehoursperweek. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Under 48. | Over 48 and under 51. | $\begin{array}{\|c\|} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{array}$ | 54. | Over 54 and under 57. | $\begin{gathered} 57 \\ \text { and } \\ \text { ander } \\ 60 . \end{gathered}$ | 60. | Over 60 and under 63. |
| BOARDERS, MALE. |  |  |  |  |  |  |  |  |  |  |  |  |
| Georgia: | 1910 | 41 | \$0.1428 | 58.5 |  |  |  |  |  |  |  |  |
| 3 establishments | $\{1911$ | 50 | +80.1428 | 58.5 59.1 |  |  |  |  | 12 |  | 29 |  |
| 3 establishments. | $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ | 58 | . 1321 | 58.5 |  |  |  |  | 9 | 22 | 27 |  |
| Massachusetts: | (1912 | 62 | . 1456 | 58.5 | ...... |  |  |  | 8 | 27 | 27 | . |
| 3 establishments | $\{1910$ | 223 | . 1906 | 56.0 |  |  |  |  | 223 |  |  |  |
| 3 establishments. | (1911 | 227 | . 1870 | 56.0 |  |  |  |  | 227 |  |  |  |
| 3 establishments | $\{1911$ | 227 | . 1870 | 56.0 |  |  |  |  | 227 |  |  |  |
|  | 1912 | 273 | . 2164 | 54.0 |  |  |  | 273 |  |  |  |  |
| North Carolina: | $\{1910$ | 81 | . 1405 | 60.0 |  |  |  |  |  |  | 81 |  |
| 4 establishments | $\{1911$ | 85 | . 1494 | 60.0 |  |  |  |  |  |  | 85 |  |
| 4 establishments..... | $\{1911$ | 83 | . 1516 | 59.5 |  |  |  |  | 8 |  | 75 |  |
| 4 establishments..... | $\{1912$ | 89 | . 1669 | 59.7 |  |  |  |  | 5 |  | 84 | ...... |
| Pennsylvania: |  | 213 | . 2204 | 57.6 |  |  |  |  | 30 |  |  |  |
| 8 establishments. | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | 210 | . 22164 | 57.6 57.7 |  |  |  |  | 21 | 189 |  |  |
| 8 establishments | $\{1911$ | 224 | . 2142 | 57.8 |  |  |  |  | 16 | 208 |  |  |
| 8 estabkument | (1912 | 280 | . 2492 | 55.2 |  |  |  |  | 280 |  |  |  |
| Wisconsin: | (1910 | 49 | . 2318 | 55.0 |  |  |  |  | 49 |  |  |  |
| 2 establishment | $\{1911$ | 64 | . 2377 | 55.0 |  |  |  |  | 64 |  |  |  |
| 2 establishments | $\{1911$ | 64 | . 2377 | 55.0 |  |  |  |  | 64 |  |  |  |
| 2 establishments. | 1912 | 69 | . 2589 | 55.0 |  |  |  |  | 69 |  |  |  |
| buttonhole makers, UNDERWEAR, FEMALE. |  |  |  |  |  |  |  |  |  |  |  |  |
| New York: |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 establishments. | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | 88 87 | .1632 .1691 | 59.4 59.4 |  |  |  |  | 14 10 | 14 | 50 56 | 10 9 |
| 16 establishments. | $\{1911$ | 107 | . 1658 | 59.5 |  |  |  |  | 13 | 15 | 70 | 9 |
| 16 estabishments. | (1912 | 108 | . 1712 | 58.8 |  |  |  |  | 22 | 9 | 77 |  |
| BUTTON SEWERS, UNDERWEAR, FEMALE. |  |  |  |  |  |  |  |  |  |  |  |  |
| New York: |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 establishments. | $\{1910$ | 82 | . 1539 | 59.6 |  |  |  |  | 11 | 9 | 54 | 8 |
| 11 estabishments. | 11911 | 84 | . 1485 | 59.8 |  |  |  |  | 9 | 8 | 56 | 11 |
| 16 establishments. | $\{1911$ | 102 | . 1461 | 59.6 |  |  |  |  | 12 | 11 | 68 | 11 |
| 10 establishments. | 1912 | 111 | . 1499 | 58.7 |  |  |  |  | 26 | 10 | 75 |  |
| CUTTERS, HAND, UNDERwear, male. |  |  |  |  |  |  |  |  |  |  |  |  |
| New York: |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 establishments. | $\{1910$ | 126 | . 2118 | 59.4 |  |  |  |  | 32 | 12 | 55 | 27 |
| 9 estabishments. | 1911 | 119 | . 2198 | 59.0 |  |  |  |  | 37 | 11 | 57 | 14 |
| 11 establishments | $\{1911$ | 123 | . 2236 | 59.0 |  |  |  |  | 37 | 16 | 56 | 14 |
| 11 estabishments | \{1912 | 140 | . 2072 | 59.1 |  |  |  |  | 22 | 13 | 105 |  |

Table III.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1910 TO 1912-Continued.

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.

| Occupation, State, and number of establishments. | Year. | $\begin{aligned} & \text { Num- } \\ & \text { ber } \\ & \text { of } \\ & \text { em- } \\ & \text { ploy- } \\ & \text { ees. } \end{aligned}$ | Average rate of wages per hour. | $\begin{gathered} \text { Aver } \\ \text { age } \end{gathered}$ | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | nal <br> time hours per week. | Under 48. | $\left\|\begin{array}{c} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { ander } \\ 51 . \end{array}\right\|$ | $\begin{gathered} 51 \\ \text { and } \\ \text { under } \\ \mathbf{5 4 .} . \end{gathered}$ | 54. | $\begin{gathered} \text { Over } \\ 54 \\ \text { and } \\ \text { under } \\ 57 . \end{gathered}$ | $\begin{gathered} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}$ | 60. | $\begin{gathered} \text { Over } \\ 60 \\ \text { and } \\ \text { under } \\ 63 . \end{gathered}$ |
| FINLSHERS, UNDERWEAR, FEMALE. |  |  |  |  |  |  |  |  |  |  |  |  |
| Connecticut: <br> 3 establishments. <br> 3 establishments | 1910 | 84 | \$0.1625 | 56.6 |  |  |  |  | 41 | 39 | 4 |  |
|  | $\{1911$ | 97 | . 1644 | 56.6 |  |  |  |  | 51 | 39 | 7 | ....... |
|  | $\{1911$ | 97 | . 1644 | 56.6 |  |  |  |  | 51 | 39 | 7 |  |
|  | (1912 | 123 | . 1552 | 54.8 |  | 50 |  |  |  | 67 | 6 | -.... |
| New York: |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 establishments | $\{1911$ | 633 | . 1643 | 59.7 |  |  |  |  | 40 | 98 | 462 | 33 |
| 15 establishments. | 1911 | 716 | . 1590 | 59.6 |  |  |  |  | 41 | 141 | 501 | 33 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 establishments..... | 1911 | 197 | . 1365 | 56.6 |  |  |  |  | 90 | 107 |  |  |
| ta | (1911 | 208 | . 1365 | 56.5 |  |  |  |  | 101 | 107 |  |  |
| 3 establishments | (1912 | 224 | . 1258 | 56.6 |  |  |  |  | 104 | 120 |  |  |
| FOLDERS, FEMALE. |  |  |  |  |  |  |  |  |  |  |  |  |
| Georgia: ${ }^{\text {a }}$ (1910 00.0 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 establishments..... | $\{1911$ | 40 | . 1095 | 58.6 |  |  |  |  | 11 |  | 29 | -..... |
| 3 establishments | ¢1911 | 59 | . 1093 | 58.4 |  |  |  |  | 11 | 19 | 29 | ...... |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 establishments | 11910 | 112 | . 1597 | 56.0 |  |  |  |  | 112 |  |  |  |
| 3 estaolishments | $\{1911$ | 123 | . 1408 | 56.0 |  |  |  |  | 123 |  |  |  |
| 3 establishment | $\{1911$ | 123 | . 1408 | 56.0 |  |  |  |  | 123 |  |  |  |
| 3 establishment | [1912 | 143 | . 1370 | 54.0 |  |  |  | 143 |  |  |  |  |
| New York: |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 establishments | 11911 | 153 | .1260 | 59.4 |  |  |  |  | 12 | 42 | 83 | 16 |
|  | 1911 | 184 | . 1302 | 59.3 |  |  |  |  | 21 | 45 | 102 | 16 |
| 16 establishments | $\{1912$ | 205 | . 1427 | 58.5 |  |  |  |  | 57 | 13 | 135 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 establishments..... | /1910 | 38 | . 1197 | ¢0.0 |  |  |  |  |  |  | 38 |  |
| 4 establishments..... | 1911 | 58 | . 1050 | 59.4 |  |  |  |  | 9 |  | 49 |  |
| stablishments | 1911 | 50 | . 1055 | 59.9 |  |  |  |  | 1 |  | 49 |  |
| stablishments | 1912 | 49 | . 1271 | 59.9 |  |  |  |  | 1 |  | 48 |  |
| Pennsylvania: . |  |  |  |  |  |  |  |  |  |  |  |  |
| 8 establishments | $\{1910$ | 86 | . 1364 | 57.1 |  |  |  |  | 34 | 48 | 4 |  |
| 8 estabishments | 1911 | 87 | . 1351 | 57.6 |  |  |  |  | 23 | 61 | 3 |  |
| 9 establishments. | $\{1911$ | 95 | . 1356 | 57.3 |  |  |  |  | 31 | 61 | 3 |  |
| 9 establishments. | (1912 | 86 | . 1360 | 55.5 |  |  |  |  | 77 | 9 |  |  |
| INSPECTORS AND MENDERS, UNDERWEAR, FEMale. |  |  |  |  |  |  |  |  |  |  |  |  |
| New York: |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 establishments.... | $\{1910$ | 324 | . 1288 | 59.2 |  |  |  |  | 65 | 46 | 136 | 27 |
| 12 estabhishments.... | (1911 | 312 | . 1324 | 59.2 |  |  |  |  | 49 | 46 | 195 | 22 |
| 15 establishments. | $\{1911$ | 358 | . 1298 | 59.3 |  |  |  |  | 55 | 66 | 215 | 22 |
| 15 establishments. | - 1912 | 333 | . 1296 | 58.9 |  |  |  |  | 59 | 50 | 224 |  |

Table III.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE ANID CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1910 TO 1912—Continued.
HOSIERY AND KNIT GOODS MANUFACTURING-Continued.

| Occupation, State, and number of establishments. | Year. | $\left\lvert\, \begin{gathered} \text { Num- } \\ \text { ber } \\ \text { of } \\ \text { em- } \\ \text { ploy- } \\ \text { ees. } \end{gathered}\right.$ | Average rate of wages per hour. |  | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Under 48. | $\left\lvert\, \begin{gathered} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}\right.$ | $\left\lvert\, \begin{gathered} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}\right.$ | 54. | $\begin{gathered} \text { Over } \\ 54 \\ \text { and } \\ \text { ander } \\ 57 . \end{gathered}$ | $\begin{gathered} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}$ | 60. | $\begin{array}{\|c} \text { Over } \\ 60 \\ \text { and } \\ \text { under } \\ 63 . \end{array}$ |
| KNITTERS, FOOTERS OR TORPERS, HOSIERY, FEMALE. |  |  |  |  |  |  |  |  |  |  |  |  |
| Connecticut: <br> 3 establishments..... | 1910 | 189 | \$0.1358 | 58.9 |  |  |  |  |  | 142 | 47 |  |
|  | 1911 | 179 | . 1405 | 59.0 |  |  |  |  |  | 131 | 48 |  |
| 2 establishments. | $\{1911$ | 106 | . 1528 | 58.9 |  |  |  |  |  | 58 | 48 |  |
| Georgia: |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 establishments. | $\{1910$ | 166 | . 0931 | 57.8 |  |  |  |  | 72 |  | 94 |  |
|  | 1911 | 81 | . 0957 | 57.7 |  |  |  |  | 37 |  | 44 |  |
| 3 establishments. | $\{1911$ | 107 | . 1051 | 57.5 |  |  |  |  | 37 | 42 | 28 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 establishments | $\{1910$ | 140 | . 1097 | 59.4 |  |  |  |  |  | 82 | 58 |  |
|  | 1911 | 149 | . 1068 | 59.5 |  |  |  |  |  | 78 | 71 | -..... |
| 3 establishments. | $\{1911$ | 164 | .1034 | 59.5 |  |  |  |  |  | 78 | 86 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 establishments | $\{1910$ | 121 | . 1322 | 56.0 |  |  |  |  | 121 |  |  |  |
| 3 estabishments | 1911 | 84 | . 1211 | 36.0 |  |  |  |  | 84 |  |  |  |
| 3 establishments..... | $\{1911$ | 84 | . 1211 | 56.0 |  |  |  |  | 84 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 establishments | $\{1911$ | 112 | . 1414 | 53.7 |  |  | 26 | 86 |  |  |  |  |
| 2 establishment | $\{1911$ | 112 | . 1414 | 53.7 |  |  | 26 | 86 |  |  |  |  |
| New Hampshire: $\quad$ <br> N |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 establishments | $\{1910$ | 71 | .1431 | 58.0 |  |  |  |  |  | 71 |  |  |
| 2 estabishments. | \{1911 | 96 | . 1421 | 58.0 |  |  |  |  |  | 96 |  |  |
| 3 establishments. | $\{1911$ | 114 | . 1402 | 58.0 |  |  |  |  |  | 114 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 establishme | f1910 | 170 | . 0715 | 60.0 |  |  |  |  |  |  | 170 |  |
| 3 establishmen | $(1911$ | 196 | . 0734 | 60.0 |  |  |  |  |  |  | 196 | -..... |
| 3 establishments | \{1911 | 160 | . 0832 | 59.2 |  |  |  |  | 25 |  | 135 |  |
| 3 establishments. | \{1912 | 120 | . 1027 | 59.1 |  |  |  |  | 21 |  | 99 | ...... |
| Pennsylyania: $\quad 1010$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 establishments. | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | 601 543 | . 1273 | 57.7 |  |  |  |  | 143 | 368 306 | 90 |  |
| 7 establishments. | 11911 | 543 | . 1310 | 57.7 |  |  |  |  | 134 | 306 | 103 | -...-. |
| 8 establishments. | $\{1911$ | 1, 005 | . 1503 | 57.3 |  |  |  |  | 311 | 591 | 103 |  |
| Wistabin | (1912 | 919 | . 1470 | 55.7 |  |  |  |  | 722 | 197 |  |  |
| Wiscost 2 establishments. | ¢1910 | 165 | . 1414 | 55.0 |  |  |  |  | 165 |  |  |  |
| 2 estabishments. | 1911 | 175 | . 1396 | 55.0 |  |  |  |  | 175 |  |  |  |
| 2 establishments. | $\{1911$ | 175 | . 1396 | 55.0 |  |  |  |  | 175 |  |  |  |
| 2 establishments. | \{1912 | 219 | . 1474 | 55.0 |  |  |  |  | 219 |  |  | ..... |
| ENITTERS, "LADY HOSE," male. |  |  |  |  |  |  |  |  |  |  |  |  |
| New Hampshire: |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 establishments. | $\{1910$ | 63 64 | .1733 .1770 | 58.0 |  |  |  |  |  | 63 64 |  |  |
| 2 establishments. | $\{1911$ | 57 | . 1810 | 58.0 |  |  |  |  |  | 57 |  |  |
| 2 establishments. | \{1912 | 55 | . 1650 | 58.0 |  |  |  |  |  | 55 |  |  |

Table III.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EAOH STATE, BY YEARS, 1910 TO 1912-Continued.

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.

| Occupation, State, and number of establishments. | Year. | $\begin{gathered} \text { Num- } \\ \text { ber } \\ \text { of } \\ \text { em- } \\ \text { ploy- } \\ \text { ees. } \end{gathered}$ | Aver age rate of wages per hour. | Average nominal fulltime hours per week. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Under 48. | $\begin{array}{\|c} \text { Oyer } \\ 48 \\ \text { and } \\ \text { ander } \\ 51 . \end{array}$ | $\begin{array}{\|c} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{array}$ | 54. | Over 54 and under 57. | $\begin{array}{\|c\|} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{array}$ | 60. | $\begin{gathered} \text { Over } \\ 60 \\ \text { and } \\ \text { under } \\ 63 . \end{gathered}$ |
| KNITTERS, "lady hose," Male-concluded. |  |  |  |  |  |  |  |  |  |  |  |  |
| Pennsylvania: | $\{1910$ | 65 | \$0.1843 | 57.8 |  |  |  |  |  | 65 |  |  |
| 2 establishments | (1911 | 58 | . 1880 | 57.8 |  |  |  |  |  | 58 |  |  |
| 2 estabiishments. | $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ | 58 90 | .1880 .2193 | 57.9 $\mathbf{5 5 . 6}$ |  |  |  |  | 90 | 58 |  |  |
| KNitters, "LADY HOSE," FEMALE. |  |  |  |  |  |  |  |  |  |  |  |  |
| Pennsylvania: |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 establishments | $\{1911$ | 7 | . 1357 | 57.7 |  |  |  |  |  | 77 |  |  |
| 3 establishments..... | f1911 | 77 | . 1357 | 57.7 |  |  |  |  |  | 77 |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 establishmen | $\{1910$ | 91 | . 1643 | 5 5. 0 |  |  |  |  | 91 |  |  |  |
| 2 estabishment | 1911 | 80 | . 1656 | 55.0 |  |  |  |  | 80 |  |  |  |
| 2 establishments | $\{1911$ | 80 | . 1656 | 55.0 |  |  |  |  | 80 |  |  |  |
| 2 establishments | \{1912 | 97 | . 1729 | 55.0 |  |  |  |  | 97 |  |  |  |
| KNITTERS, WEB OR TUBE, UNDERWEAR, MALE. |  |  |  |  |  |  |  |  |  |  |  |  |
| New York: |  |  |  |  |  |  |  |  |  |  |  |  |
| 9 establishments. | $\{1910$ | 103 | . 2129 | 59.7 |  |  |  |  | 9 | 19 | 61 | 14 |
| 9 establishments. | \{1911 | 100 | . 2179 | 59.3 |  |  |  |  | 7 | 18 | 59 | 16 |
| 14 establishments.... | $\{1911$ | 122 | . 2141 | 59.9 |  |  |  |  | 7 18 | 22 | 77 | 16 |
| 14 establishments.... | $\{1912$ | 142 | . 2296 | 59.2 |  |  |  |  | 18 | 20 | 104 | ...... |
| LOOPERS, PEMALE. |  |  |  |  |  |  |  |  |  |  |  |  |
| Connecticut: |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 establishments | 1910 | 132 | . 1471 | 57.9 |  |  |  |  | 32 | 70 | 30 | .-. |
| 4 establishments. | \{1911 | 127 | . 1551 | 58.1 |  |  |  |  | 22 | 76 | 29 |  |
|  | $\{1911$ | 103 | . 1632 | 57.9 |  |  |  |  | 22 | 52 | 29 |  |
| 3 establishments. | (1912 | 90 | . 1707 | 57.6 |  | 12 |  |  |  | 48 | 30 | ...... |
| Georgia: |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 establishments | \{1910 | 79 64 | .0959 .0817 | 59.5 59.8 |  |  |  |  | 8 | ...... | 71 |  |
|  | (1911 | 64 | . 0817 | 59.8 |  |  |  |  | 2 |  | 62 | .... |
| 3 establishments..... | $\{1911$ | 61 | . 1134 | 58.9 |  |  |  |  | 2 | 28 | 31 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 establishments | 1910 | 367 | . 1233 | 56.0 |  |  |  |  | 367 |  |  |  |
| 3 establishments. | \{1911 | 363 | . 1172 | 56.0 |  |  |  |  | 363 |  |  |  |
| 3 establishments. | 1911 | 363 | .1172 | 56.0 |  |  |  |  | 363 |  |  |  |
| New Hampshire: |  |  |  |  |  |  |  | 404 |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | 85 |  |  |
| 2 establishments. | 11911 | 93 | . 1533 | 58.0 |  |  |  |  |  | 93 |  |  |
|  | (1911 | 130 | . 1511 | 58.0 |  |  |  |  |  | 130 |  |  |
| 3 establishments. | \{1912 | 129 | . 1429 | 58.0 |  |  |  |  |  | 129 |  |  |
| New York: |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 establishments. | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | 104 100 | .1763 .1683 | 60.0 60.0 |  |  |  |  |  |  | 104 |  |
| 5 estabishments. | 11911 | 100 | . 1683 | 60.0 |  |  |  |  |  |  | 100 | --.... |
| 3 establishments. | $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ | 93 89 | .1686 .1689 | 59.0 58.4 |  |  |  |  | 18 |  | 75 61 |  |

TABLE III. - AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1910 TO 1912-Continued.

HOSIERY AND KNIT GOODS MANUFACTURING-Continued.

| Occupation, State, and number of establishments. | Year. | $\left.\begin{array}{\|c\|} \text { Num- } \\ \text { ber } \\ \text { of } \\ \text { em- } \\ \text { ploy- } \\ \text { ees. } \end{array} \right\rvert\,$ | Average rate of wages per hour. | $\begin{gathered} \text { Aver }-1 \\ \text { age } \end{gathered}$ | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Under 48. | Over 48 and under 51. | $\begin{gathered} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}$ | 54. | Over 54 and under 57. | $\begin{gathered} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{gathered}$ | 60. | $\begin{array}{\|c} \text { Over } \\ 60 \\ \text { and } \\ \text { under } \\ 63 . \end{array}$ |
| LOOPERS, FEMALE-CONcluded. |  |  |  |  |  |  |  |  |  |  |  |  |
| North Carolina: |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 estabish | $\{1911$ | 133 | . 1069 | 60.0 |  |  |  |  |  |  | 133 |  |
| 4 establishments. | $\{1911$ | 140 | . 1073 | 59.5 |  |  |  |  | 15 |  | 125 |  |
| Pennsylvania: |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 establishments | $\{1910$ | 717 | . 1332 | 57.4 |  |  |  |  | 137 | 558 | 22 |  |
| 11 establishments. | \{1911 | 616 | . 1283 | 57.5 |  |  |  |  | 98 | 498 | 20 |  |
| 12 establishments. | $\left\{\begin{array}{l}1911 \\ 1912\end{array}\right.$ | 769 | . 1388 | 57.6 |  |  |  |  | 90 | 659 | 20 |  |
| Wi 12 establshments. | 1912 | 828 | . 1497 | 55.6 |  |  |  |  | 688 | 140 |  |  |
| Wisconsin. | (1910 | 144 | . 1501 | 55.2 |  |  |  |  | 138 |  | 6 |  |
| 3 establishments. | \{1911 | 143 | . 1455 | 55.2 |  |  |  |  | 136 |  | 7 |  |
| 3 establishments. | $\{1911$ | 143 | . 1455 | 55.2 |  |  |  |  | 136 |  | 7 |  |
| 3 estabhishments. | (1912 | 182 | . 1602 | 55.0 |  |  |  |  | 182 |  |  |  |
| MENDERS, FINE, HOSIERY, FEMALE. |  |  |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 establishments. | $\{1910$ | 73 | . 1405 | 56.0 |  |  |  |  | 73 |  |  |  |
| 3 establishments. | Q1911 | 86 | . 1247 | 56.0 |  |  |  |  | 86 | ...... |  |  |
| 3 establishments. | $\{1911$ | 86 | . 1247 | 56.0 |  |  |  |  | 86 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | (1911 | 163 | . 1521 | 57.6 |  |  |  |  | 20 | 140 | 3 |  |
| 8 establishments. | $\left\{\begin{array}{l}1911 \\ 1012\end{array}\right.$ | 155 | .1577 | 57.7 |  |  |  |  | 9 | 143 | 3 |  |
| MENDERS, ROUGH, HOSIERY, FEMALE. |  |  |  |  |  |  |  |  |  |  |  |  |
| Georgia: |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 establishments | $\{1910$ | 65 | . 0822 | 58.7 |  |  |  |  | 17 |  | 48 |  |
| 3 establishments | 1911 | 46 | . 0908 | 58.8 |  |  |  |  | 11 |  | 35 |  |
| 3 establishments. | $\{1911$ | 65 | . 1001 | 58.3 |  |  |  |  | 11 | 27 | 27 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 establishments. | $\{1910$ | 111 | . 1197 | 56.0 |  |  |  |  | 111 |  |  |  |
| 3 estabushments. | 1911 | 107 | . 1176 | 56.0 |  |  |  |  | 107 |  |  |  |
| 3 establishments. | 1911 | 107 | . 1176 | 56.0 |  |  |  |  | 107 |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 establishments. | $\{1910$ | 68 | . 1082 | 60.0 |  |  |  |  |  |  | 68 |  |
| 2 establishments. | \{1911 | 69 | . 0986 | 60.0 |  |  |  |  |  |  | 69 |  |
| 2 establishments. | $\{1911$ | 62 | . 1104 | 59.4 |  |  |  |  | 8 |  | 54 |  |
| Pennsylvania: |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 estabishments. | 1911 | 52 | . 1374 | 57.8 |  |  |  |  | 4 | 46 | 2 |  |
| 7 establishments. | $\{1911$ | 138 | . 1686 | 58.0 |  |  |  |  | 4 | 132 | 2 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 establishments. | $\{1910$ | 74 | . 1288 | 55.0 |  |  |  |  | 74 |  |  |  |
|  | (1911 | 79 | . 1210 | 55.0 |  |  |  |  | 79 |  |  |  |
| 2 establishments. | 1911 | 79 | . 1210 | 55.0 |  |  |  |  | 79 |  |  |  |
| 2 establishments. | 1912 | 92 | . 1327 | 55.0 |  |  |  |  | 92 |  |  |  |

Table III.-AVERAGE RATES OF WAGES PER HOUR AND AVERAGE AND CLASSIFIED NOMINAL FULL-TIME HOURS OF WORK PER WEEK IN EACH STATE, BY YEARS, 1910 TO 1912-Concluded.

HOSIERY AND KNIT GOODS MANUFACTURING-Concluded.

| Occupation, State, and number of establishments. | Year. | $\begin{gathered} \text { Num }-1 \\ \text { ber } \\ \text { of } \\ \text { em- } \\ \text { ploy- } \\ \text { ees. } \end{gathered}$ | Average rate of wages per hour. | Aver. age nominal fulltime hours per week. | Employees whose nominal full-time working hours per week were- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Under 48. | $\left\lvert\, \begin{gathered} \text { Over } \\ \text { 48 } \\ \text { and } \\ \text { under } \\ 51 . \end{gathered}\right.$ | $\begin{gathered} 51 \\ \text { and } \\ \text { under } \\ 54 . \end{gathered}$ | 54. | Over 54 and under 57. | $\begin{array}{\|c\|} 57 \\ \text { and } \\ \text { under } \\ 60 . \end{array}$ | 60. | $\begin{gathered} \text { Over } \\ 60 \\ \text { and } \\ \text { under } \\ 63 . \end{gathered}$ |
| SEAMERS, UNDERWEAR, FEMALE. |  |  |  |  |  |  |  |  |  |  |  |  |
| New York: |  |  |  |  |  |  |  |  |  |  |  |  |
| 12 establishments | $\{1910$ | 642 | \$0. 1550 | 59.4 |  |  |  |  | 103 | 89 | 386 | 64 |
| 12 establishments. | \{1911 | 658 | . 1517 | 59.5 |  |  |  |  | 81 | 90 | 428 | 59 |
| 16 establishments. | ¢1911 | 741 | . 1494 | 59.5 |  |  |  |  | 87 | 111 | 484 | 59 |
| 16 establishments. | $\{1912$ | 770 | . 1503 | 59.1 |  |  |  |  | 86 | 134 | 550 |  |
| Pennsylvania: |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 establishments..... | $\{1910$ | 98 .92 | .1311 | 56.7 56.3 |  |  |  |  | 42 | 56 |  |  |
|  | (1911 | - 92 | . 1115 | 56.3 |  |  |  |  | 51 | 41 |  |  |
| 2 establishments..... | $\{1911$ | 92 | . 1115 | 56.3 |  |  |  |  | 51 | 41 |  |  |
| 2 establishments..... | $\{1912$ | 97 | . 1287 | 59.3 |  |  |  |  | 49 | 48 |  |  |
| WELTERS, FEMALE. |  |  |  |  |  |  |  |  |  |  |  |  |
| Massachusetts: |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 establishments. | $\{1910$ | 98 | . 1102 | 56.0 |  |  |  |  | 98 |  |  |  |
| 2 estabishments. | (1911 | 113 | . 1172 | 50.0 |  |  |  |  | 113 |  |  |  |
| 2 establishments | 11911 | 113 | . 1172 | 56.0 |  |  |  |  | 113 |  |  |  |
| 2 establishments | 1912 | 106 | . 1452 | 54.0 |  |  |  | 106 |  |  |  |  |
| Pennsylvania: ${ }^{\text {a }}$ (1012 ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 6 establishments. . . . | $\{1910$ | 70 80 | . 1362 | 58.1 |  |  |  |  |  | 76 80 |  |  |
|  | 1011 |  |  |  |  |  |  |  |  | 0 |  |  |
| 7 establishments | \{1911 | 92 | . 1405 | 57.7 |  |  |  |  | 12 | 80 |  |  |
| 7 establishments. | \{1912 | 95 | . 1560 | 55. ${ }^{\text {a }}$ |  |  |  |  | 89 | 6 |  |  |
| WINDERS, FEMALE. |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 establishments... | $\{1910$ | 58 | . 1331 | 57.2 |  |  |  |  | 23 | 27 | 8 | …… |
| 4 estabushments.....* | 11911 | 53 | . 1300 | 57.3 |  |  |  |  | 20 | 25 | 8 |  |
| 3 establishments. | $\{1911$ | 47 | . 1310 | 57.1 |  |  |  |  | 20 | 19 | 8 | ....... |
|  |  |  |  |  |  |  |  |  |  | 18 | 11 |  |
|  |  |  |  |  |  |  |  |  | 233 |  |  |  |
| 3 establishments..... | $\{1911$ | 233 | . 1259 |  |  |  |  |  | 233 |  |  |  |
|  | (1911 | 233 |  | 20.0 |  |  |  |  | 233 |  |  |  |
| 3 establishments | $\{1911$ | 233 | . 1259 | 56.0 |  |  |  |  | 233 |  |  |  |
| New York: ${ }^{(1912}$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | 186 | 119 |
| 11 establishments.... | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | 390 352 | .1416 .1478 | 59.9 |  |  |  |  | 39 | 31 | 205 | 77 |
|  | f1911 | 348 | . 1465 | 60.0 |  |  |  |  | 17 | 41 | 213 | 77 |
| 13 establishments.... | $\{1912$ | 367 | . 1518 | 58.4 |  |  |  |  | 109 | 16 | 242 |  |
|  |  |  |  |  |  |  |  |  |  |  | 6 |  |
| 8 establishments. | $\left\{\begin{array}{l}1910 \\ 1911\end{array}\right.$ | 177 | .1225 .1189 | 57.5 57.5 |  |  |  |  | 32 30 | 131 | 6 5 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10 establishments. | 1911 | 188 | .1167 | 57.6 |  |  |  |  | 30 | 153 | 5 | -..... |
|  | \{1912 | 200 | . 1328 | 55.7 |  |  |  |  | 157 | 43 |  |  |


[^0]:    ${ }^{1}$ Previous investigations of wages and hours of labor in boot and shoe manufacturing have been made and published by the Bureau, as follows: Nineteenth Annual Report, covering 1890 to 1903; Bulletin No. 59 (July, 1905), covering 1903 and 1904; Bulletin No. 65 (July, 1906), covering 1904 and 1905; Bulletin No. 71 (July, 1907), covering 1905 and 1906; and Bulletin No. 77 (July, 1908), covering 1906 and 1907.

[^1]:    ${ }^{1}$ Employees in this occupation were reported as cutters, upper, for 1890 to 1907.
    2 Data for 1890 to 1906 not available; computed with $1907=100.0$.
    ${ }^{3}$ Data for 1890 to 1909 not available; computed with $1910=100.0$.
    $\checkmark$ Data for 1890 to 1910 not available; computed with $1911=100.0$.

[^2]:    1 Data for 1890 to 1906 not available; computed with $1907=100.0$.
    2 Data for 1890 to 1910 not available; computed with $1911=100.0$.

[^3]:    1 Data for 1890 to 1906 not available; computed with 1907=100.0.
    2 Data for 1890 to 1910 not available; computed with $1911=100.0$

[^4]:    ${ }^{1}$ Employees reported as lasters, machine, for 1890 to 1907 , are reported for subsequent years as bedmachine operators and hand-method lasting machine operators.
    ${ }_{2}$ Data for 1890 to 1906 not available; computed with $1907=100.0$.
    3 Data for 1890 to 1909 not available; computed with $1910=100.0$.
    4 Data for 1890 to 1910 not available; computed with $1911=100.0$.

[^5]:    

[^6]:    ${ }^{1}$ Press hands, famale, were classed as pressors in the earliar reports.

[^7]:    ${ }^{1}$ Employees in this occupation were reported as knitters for 1890 to 1907.
    ${ }^{2}$ Employees reported as menders for 1890 to 1907 are reported for subsequent ycars as menders, fine, hosiery, and menders, rough, hosiery
    ${ }^{3}$ Data for 1890 to 1906 not available; computed with $1907=100.0$
    4 Employees in this occupation were reported as menders for 1890 to 1907.

