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IRON AND STEEL INDUSTRY
1907 TO 1913



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WAGES AND HOURS OF LABOR IN THE IRON AND STEEL INDUSTRY, 1907 TO 1913.

INTRODUCTION AND SUMMARY.

In this report are presented the full-time weekly earnings, the rates of wages or earnings per hour, and the customary full-time hours of labor per week in the principal productive occupations in nine departments or subdivisions of the iron and steel industry in the United States for the years 1912 and 1913, in addition to similar statistics for 1907 to 1912, inclusive, repeated from Bulletin 151 (May, 1914) of the Bureau of Labor Statistics.

The several departments of the industry covered and the years for which information is now shown are as follows:

Iron smelting:

Blast furnaces, 1907-1913.

Steel making:

Bessemer converters, 1907-1913.

Open-hearth furnaces, 1910-1913.

Steel working:

Rolling mills—

Blooming mills, 1910-1913.

Plate mills, 1910-1913.

Standard rail mills, 1910-1913.

Bar mills, 1907-1913.

Sheet mills, 1910-1913.

Tin-plate mills, 1910-1913.

The information here presented is for one pay-roll period in each year, obtained from certain representative plants in the industry. The pay period selected in most cases was the second half of May each year, but when conditions in May were not normal reports were taken for a normal period as near May as available. The number of plants covered and the number of employees for whom data are presented each year are stated in the table on pages 15 and 16.

In the chapters relating to the several departments the full-time weekly earnings, the full-time hours of labor per week, and the rates of

wages or earnings per hour are shown for each occupation, and these figures are summarized in the form of percentages which show the trend of wages and hours from year to year in each department as a whole. Such summary figures for the several departments are assembled, for the convenience of the reader, in this general introduction.

A marked increase in the rates of pay in the iron and steel industry was made in the early part of 1913. As a result, in the three departments for which reports for seven years have been obtained—blast furnaces, Bessemer converters, and bar mills—full-time weekly earnings in 1913 in the principal productive occupations combined were from 6.6 to 26.4 per cent higher than in any one of the six years preceding.

In 1913 full-time weekly earnings in such occupations in blast furnaces were 11.4 per cent higher than in 1907, 18.2 per cent higher than in 1908, 19.2 per cent higher than in 1909, 10.5 per cent higher than in 1910, 9.5 per cent higher than in 1911, and 10.1 per cent higher than in 1912.

Full-time weekly earnings in such occupations in the Bessemer converting department in 1913 were 15.7 per cent higher than in 1907, 26.4 per cent higher than in 1908, 18.9 per cent higher than in 1909, 13.6 per cent higher than in 1910, 19.2 per cent higher than in 1911, and 10.9 per cent higher than in 1912.

In bar mills the full-time weekly earnings in such occupations in 1913 were 8.2 per cent higher than in 1907, 20.5 per cent higher than in 1908, 17.9 per cent higher than in 1909, 6.6 per cent higher than in 1910, 12 per cent higher than in 1911, and 10.9 per cent higher than in 1912.

In each of the three departments either 1908 or 1909 was the year of lowest full-time weekly earnings during the seven-year period.

For the remaining six departments, for which reports have been obtained back to 1910 only, full-time weekly earnings in 1913 were from 3.8 per cent to 18.3 per cent higher than in any one of the three years preceding.

In the selected occupations for the blast-furnace, Bessemer, and bar-mill departments there was a reduction of hours of labor between 1907 and 1913, and, except open-hearth furnaces and plate mills, all departments show a reduction of hours between 1910 and 1913.

The facts above quoted are drawn from the following table, which treats of three correlated subjects: Full-time hours of labor per week, rates of wages per hour, and full-time weekly earnings. The heavy-faced figures of this table are relative numbers. These relative numbers are simply percentages computed from the actual weekly earnings, the actual hours of labor, and the actual rates of wages per hour

appearing in the tables relating to the occupations in the several departments. In computing such relative numbers the actual figures for 1913 are taken as the base, or 100 per cent; thus the facts for each preceding year are brought into direct comparison with the facts for the latest year available, namely, 1913. The relative for each year preceding 1913 is the per cent which the average in that year is of the average for 1913. For example, the table following shows that the relative full-time weekly earnings of employees in the principal productive occupations in blast furnaces in 1907 were 89.8 per cent of such weekly earnings in 1913. The weekly earnings decreased in 1908 to 84.6 per cent of the earnings in 1913, and in 1909 to 83.9 per cent. There was an increase to 90.5 in 1910, a slight increase in 1911, and a slight decrease in 1912, followed by a marked increase in 1913, when the relative is 100. The relative numbers for full-time hours per week in blast furnaces decreased from 103 in 1907 to 100 in 1913; in other words, the average full-time hours of work per week in 1907 were 103 per cent of the average full-time hours in 1913. The other relative numbers of the table are read in like manner. The method of computing these relative numbers from the averages of the hours and wages shown in the several tables of this report is explained on pages 21 to 23.

In addition to the relative numbers of this table, percentages have been computed showing the per cent of increase or decrease in 1913 as compared with each year preceding 1913, and in each year compared with the year immediately preceding.

Referring to the weekly earnings of blast-furnace employees in the table, it is seen that the weekly earnings in 1913 were 11.4 per cent higher than in 1907, 18.2 per cent higher than in 1908, etc.

The next column shows that the weekly earnings of blast-furnace employees in 1908 were 5.8 per cent lower than in 1907, 0.8 per cent lower in 1909 than in 1908, 7.9 per cent higher in 1910 than in 1909, and so on.

The percentages for hours per week and wages per hour for this and the other departments presented in the table are read in like manner.

RELATIVE FULL-TIME HOURS PER WEEK, WAGES PER HOUR, AND WEEKLY EARNINGS, 1907 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE, IN SPECIFIED YEARS, BY DEPARTMENTS.

Department and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (-) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (-) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (-) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Blast furnaces:									
1907.....	103.0	-2.9	-----	87.1	+14.8	-----	89.8	+11.4	-----
1908.....	101.5	-1.5	-1.5	83.1	+20.3	-4.6	84.6	+18.2	-5.8
1909.....	102.4	-2.3	+9	82.1	+21.8	-1.2	83.9	+19.2	-.8
1910.....	102.5	-2.4	+1	88.6	+12.9	+7.9	90.5	+10.5	+7.9
1911.....	101.5	-1.5	-1.0	90.2	+10.9	+1.8	91.3	+9.5	+.9
1912.....	99.0	+1.0	-2.5	92.3	+8.3	+2.3	90.8	+10.1	-.5
1913.....	100.0	-----	+1.0	100.0	-----	+8.3	100.0	-----	+10.1
Bessemer converters:									
1907.....	102.9	-2.8	-----	83.9	+19.2	-----	86.4	+15.7	-----
1908.....	98.7	+1.3	-4.1	78.0	+28.2	-7.0	79.1	+26.4	-8.4
1909.....	102.6	-2.5	+4.0	81.3	+23.0	+4.2	84.1	+18.9	+6.3
1910.....	103.4	-3.3	+8	84.9	+17.8	+4.4	88.0	+13.6	+4.6
1911.....	101.0	-1.0	-2.3	81.2	+23.2	-4.4	83.9	+19.2	-4.7
1912.....	100.7	-.7	-.3	89.8	+11.4	+10.6	90.2	+10.9	+7.5
1913.....	100.0	-----	-.7	100.0	-----	+11.4	100.0	-----	+10.9
Open-hearth furnaces:									
1910.....	99.4	+6	-----	88.2	+13.4	-----	88.2	+13.4	-----
1911.....	98.9	+3.2	-2.5	88.2	+13.4	(¹)	85.6	+16.8	-2.9
1912.....	98.6	+1.4	+1.8	91.9	+8.8	+4.2	90.8	+10.1	+6.1
1913.....	100.0	-----	+1.4	100.0	-----	+8.8	100.0	-----	+10.1
Blooming mills:									
1910.....	101.0	-1.0	-----	83.9	+19.2	-----	84.8	+17.9	-----
1911.....	100.4	-.4	-.6	84.8	+17.9	+1.1	85.8	+16.6	+1.2
1912.....	100.4	-.4	(¹)	88.5	+11.7	+5.5	89.8	+11.4	+4.7
1913.....	100.0	-----	-.4	100.0	-----	+11.7	100.0	-----	+11.4
Plate mills:									
1910.....	99.3	+7	-----	88.8	+12.6	-----	87.7	+14.0	-----
1911.....	98.7	+1.3	-.6	85.6	+16.8	-3.6	84.5	+18.3	-3.6
1912.....	99.6	+.4	+9	91.6	+9.2	+7.0	91.1	+9.8	+7.8
1913.....	100.0	-----	+.4	100.0	-----	+9.2	100.0	-----	+9.8
Standard rail mills:									
1910.....	104.3	-4.1	-----	88.9	+12.5	-----	91.3	+9.5	-----
1911.....	99.7	+3	-4.4	89.2	+12.1	+.3	88.6	+12.9	-3.0
1912.....	99.9	+1	+.2	89.6	+11.6	+.4	89.4	+11.9	+.9
1913.....	100.0	-----	+.1	100.0	-----	+11.6	100.0	-----	+11.9
Bar mills:									
1907.....	101.6	-1.6	-----	91.5	+9.3	-----	92.4	+8.2	-----
1908.....	101.1	-1.1	-.5	82.2	+21.7	-10.2	83.0	+20.5	-10.2
1909.....	102.1	-2.1	+1.0	83.8	+19.3	+1.9	84.8	+17.9	+2.2
1910.....	101.8	-1.8	-.3	92.8	+7.8	+10.7	93.8	+6.6	+10.6
1911.....	100.5	-.5	-1.3	89.0	+12.4	-4.1	89.3	+12.0	-4.8
1912.....	100.3	-.3	-.2	89.9	+11.2	+1.0	90.2	+10.9	+1.0
1913.....	100.0	-----	-.3	100.0	-----	+11.2	100.0	-----	+10.9
Sheet mills:									
1910.....	100.9	-.9	-----	85.6	+16.8	-----	86.0	+16.3	-----
1911.....	99.8	+2	-1.1	93.5	+7.0	+9.2	93.4	+7.1	+8.6
1912.....	99.6	+.4	-.2	96.4	+3.7	+3.1	96.1	+4.1	+2.9
1913.....	100.0	-----	+.4	100.0	-----	+3.7	100.0	-----	+4.1
Tin-plate mills:									
1910.....	100.0	(¹)	-----	85.0	+17.6	-----	85.0	+17.6	-----
1911.....	99.8	+.2	-.2	95.0	+5.3	+11.8	94.9	+5.4	+11.6
1912.....	99.6	+.4	-.2	96.4	+3.7	+1.5	96.3	+3.8	+1.5
1913.....	100.0	-----	+.4	100.0	-----	+3.7	100.0	-----	+3.8

¹ No change.

FULL-TIME WORKING DAYS PER WEEK.

A blast furnace from the nature of its process must be in continuous operation day and night seven days per week. In 1907, in the 20 plants reported for that year, for 97.2 per cent of all employees in the occupations presented, the customary working time was seven days per week, and for the remaining 2.8 per cent it was six days per week. Between 1907 and 1913 there was a material reduction in seven-day work, many plants having made provision to lay off each employee in rotation one day in seven, thus making a six-day week for the employee, while the plant was continuously in operation seven days. Therefore, in 1913, 36 plants reported only 79.8 per cent of all employees in the occupations presented working seven days per week and 20.2 per cent working six days per week.

The steel-making departments—Bessemer converters and open-hearth furnaces—normally are in operation day and night six days per week. A shutdown usually is made over Sunday for a period varying from 12 to 36 hours. When the demand for production is heavy, however, the plants are operated seven days per week. In 1907, a year of large production, 24.1 per cent of the employees in the 9 Bessemer plants covered worked seven days per week. In the next two years the percentage was small. In 1910, another prosperous year, 32.1 per cent of the employees in the 10 plants covered that year worked seven days per week. In 1913 only 10.8 per cent of the employees of the 10 plants covered worked seven days per week. Throughout the seven-year period the majority of the employees in the Bessemer converting department worked six days per week, while a few worked six and seven days in alternate weeks.

In open-hearth furnaces in 1913, 34.2 per cent of the employees were customarily working seven days per week and 36.2 per cent were working six and seven days in various combinations.

In blooming mills in 1913, 12 per cent of the employees were working seven days per week and 12 per cent six and seven days in alternate weeks. In the other rolling mills in 1913 the per cent of employees working seven days per week was very small.

The figures for all years covered in the nine departments appear in the table following.

PER CENT OF EMPLOYEES IN THE PRINCIPAL PRODUCTIVE OCCUPATIONS IN EACH DEPARTMENT WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1907 TO 1913 OR 1910 TO 1913.

[The figures for each group of years are for identical plants.]

Department, and number of plants.	Year.	Per cent of employees whose customary working time per week was—										
		5 days.	5 days and 6 days alternately.	5 days, 5 days, and 6 days in rotation.	5 days, 6 days, and 6 days in rotation.	6 days.	5 days and 7 days alternately.	6 days and 7 days alternately.	5 days, 6 days, and 7 days in rotation.	6 days, 6 days, and 7 days in rotation.	6 days, 7 days, and 7 days in rotation.	7 days.
Blast furnaces:												
20 plants.....	1907					2.8						97.2
	1908					5.2						94.8
	1909					3.1						96.9
	1910					4.6						95.4
34 plants.....	1910					4.9						95.1
	1911					11.1		(1)				88.9
35 plants.....	1911					11.1		(1)				88.9
	1912					17.9		(1)				82.0
36 plants.....	1912					18.1		(1)				81.8
	1913					20.2		(1)				79.8
Bessemer converters:												
9 plants.....	1907					61.1		13.1		1.0	0.7	24.1
	1908					69.1		9.6		1.5	1.0	18.7
	1909					62.2		13.8		1.3	.9	21.8
	1910					56.0		3.8	4.7	1.1	.7	33.7
10 plants.....	1910					57.8		3.8	4.5	1.0	.7	32.1
	1911					76.9		6.0		1.6	.9	14.7
10 plants.....	1911					77.0		5.9		1.6	.9	14.6
	1912					69.0		13.8		1.4	.8	14.9
10 plants.....	1912					68.8		12.7		*2.1	.6	15.7
	1913					73.1		10.0		*5.4	.7	10.8
Open-hearth furnaces:												
17 plants.....	1910		6.2			33.6	0.5	27.7				32.1
	1911		3.8			45.4	1.0	32.1		.1		17.6
17 plants.....	1911		3.7			45.6	1.0	32.0				17.5
	1912		1.7			36.2		37.1		.1		25.0
17 plants.....	1912		1.7			33.4		35.5		*.6	.3	28.6
	1913		1.8			*27.7		32.5		*2.1	*1.6	34.2
Blooming mills:												
19 plants.....	1910		6.6			65.6		10.3				17.5
	1911	0.1	5.5			63.5		15.2				15.7
	1912	.1	4.7			64.0		15.0				16.3
19 plants.....	1912	.1	4.9			60.7		9.9		7.4		16.9
	1913	.1	5.0			63.6		12.0		7.2		12.0
Plate mills:												
11 plants.....	1910		13.1			82.0		.5				4.5
	1911	2.5	35.0			57.2		.2				5.2
	1912	1.7	33.7			57.0		.7				6.8
11 plants.....	1912	1.5	32.9			56.8		1.1				7.6
	1913		36.6			53.9		1.9			.5	7.1
Standard rail mills:												
6 plants.....	1910					67.7		.5		1.8		30.0
	1911					89.8		5.0		2.2		3.1
7 plants.....	1911					90.5		4.6		2.0		3.0
	1912					90.0		6.0		1.9		2.1
7 plants.....	1912					97.1		1.0				2.0
	1913					96.5		1.3		.2		2.0

¹ Less than one-tenth of 1 per cent.

² Including 0.5 per cent who worked 7 days every fourth week.

³ Worked 7 days every fourth week.

⁴ Including 0.2 per cent who worked 7 days every sixth week.

⁵ Including 1.7 per cent who worked 7 days every fourth week.

⁶ Including 1.3 per cent who worked 6 days every fourth week.

PER CENT OF EMPLOYEES IN THE PRINCIPAL PRODUCTIVE OCCUPATIONS IN EACH DEPARTMENT WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1907 TO 1913 OR 1910 TO 1913—Concluded.

Department, and number of plants.	Year.	Per cent of employees whose customary working time per week was—										
		5 days.	5 days and 6 days alternately.	5 days, 5 days, and 6 days in rotation.	5 days, 6 days, and 6 days in rotation.	6 days.	5 days and 7 days alternately.	6 days and 7 days alternately.	5 days, 6 days, and 7 days in rotation.	6 days, 6 days, and 7 days in rotation.	6 days, 7 days, and 7 days in rotation.	7 days.
Bar mills:												
15 plants.....	1907	1.8	51.5	1.8	2.7	39.0	0.6	1.6	.....	.....	.....	1.1
	1908	3.2	48.7	1.9	2.2	41.9	.5	1.0	.....	.....	.....	.7
	1909	1.3	47.6	1.8	2.1	43.2	.4	1.8	.....	.....	.....	1.7
	1910	1.1	45.5	1.8	1.9	47.9	.4	.9	.....	.....	.....	.6
25 plants.....	1910	4.3	30.0	1.1	1.2	60.1	.2	.5	.....	.....	.....	2.6
	1911	1.0	41.3	1.1	1.2	54.0	.3	.9	.....	.....	.....	.2
26 plants.....	1911	1.0	43.1	1.1	1.1	52.5	.3	.7	.....	.....	.....	.3
	1912	1.4	45.9	1.0	1.1	49.2	.2	.8	.....	.....	.....	.4
26 plants.....	1912	1.3	48.0	1.0	1.3	46.6	.2	.9	.....	0.2	.....	.4
	1913	4.0	50.6	1.0	1.1	32.7	.1	1.6	.....	8.2	0.1	.6
Sheet mills:												
9 plants.....	1910	.1	2.0	81.3	.....	16.2	.....	.....	.....	.....	.....	.5
	1911	.1	1.4	83.9	.....	14.1	.....	.....	.....	.....	.....	.5
9 plants.....	1911	.1	1.4	83.6	.....	14.4	.....	.....	.....	.....	.....	.5
	1912	.1	1.7	84.0	.....	13.6	.....	.1	.....	.....	.....	.5
8 plants.....	1912	.1	1.9	87.2	.....	10.2	.....	.2	.....	.....	.....	.5
	1913	.1	1.7	86.8	.....	11.1	.....	.....	.....	.....	.....	.3
Tin-plate mills:												
5 plants.....	1910	.1	.6	79.2	.....	20.1	.....	.....	.....	.....	.....	(9)
	1911	.1	.5	79.6	.....	19.8	.....	.....	.....	.....	.....	(9)
6 plants.....	1911	.1	.4	78.8	.....	20.7	.....	.....	.....	.....	.....	(9)
	1912	.....	1.5	79.0	.....	19.5	.....	.....	.....	.....	.....	.....
6 plants.....	1912	.....	1.8	77.8	.....	20.2	.....	.....	.....	.....	.....	.3
	1913	.....	.6	75.4	1.9	22.0	.....	.1	.....	.....	.....	.....

¹ Including 0.3 per cent who worked 7 days every fifth week.

² Including 0.2 per cent who worked 7 days every fifth week.

³ Including 0.2 per cent who worked 5 days every fourth week.

⁴ Less than one-tenth of 1 per cent.

FULL-TIME WORKING HOURS PER WEEK.

Employees in the principal productive occupations of the several departments are classified in the next table to show the per cent working specified hours per week. Referring to the figures for blast furnaces it is seen that in 1907, in 20 plants reported, 2.8 per cent of the employees reported worked 60 hours per week when they worked full time, 12.9 per cent worked over 60 and under 72 hours per week, less than one-tenth of 1 per cent worked 72 hours per week, 4.6 per cent worked over 72 and under 84 hours per week, and 79.7 per cent worked 84 hours per week. By 1910 the employees working 84 hours per week had decreased to 76.3 per cent in the same 20 plants, or as shown by 34 plants to 74.6 per cent. A very material reduction was made in working hours by 1911 and a still greater reduction by 1912. In 1911 the employees working 84 hours per week had been

reduced to 71.7 per cent of all employees as shown by the returns from 34 plants, or to 71.9 per cent as shown by 35 plants. In 1912 the per cent of employees in 35 plants working 84 hours per week had been reduced to 61.4 per cent, or to 61.2 per cent in 36 plants. In 1913 the per cent working 84 hours had increased slightly, being 62.6, including less than one-tenth of 1 per cent working 91 hours.

The per cent of employees working specified hours in the Bessemer converting department and some other departments differed materially in the several years owing to fluctuations in the volume of business, and to changes from 12 to 8 hour shifts or vice versa.

PER CENT OF EMPLOYEES IN THE PRINCIPAL PRODUCTIVE OCCUPATIONS IN EACH DEPARTMENT WORKING EACH SPECIFIED NUMBER OF HOURS PER WEEK, BY YEARS, 1907 TO 1913 OR 1910 TO 1913.

[The figures for each group of years are for identical plants.]

Department, and number of plants.	Year.	Per cent of employees whose full-time hours per week were—							
		48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Blast furnaces:									
20 plants.....	1907	.....	.....	.....	2.8	12.9	(¹)	4.6	79.7
	1908	.....	.....	.....	4.8	16.9	.....	7.3	71.0
	1909	.....	.....	.....	2.6	15.1	0.4	8.4	73.5
	1910	.....	(¹)	.....	3.7	12.1	.9	7.0	76.3
34 plants.....	1910	.....	(¹)	0.1	4.1	12.5	.8	7.9	74.6
	1911	.....	.....	.3	4.2	11.7	6.3	5.7	71.7
35 plants.....	1911	.....	.....	.3	4.3	11.6	6.3	5.6	71.9
	1912	.....	(¹)	4.5	4.5	10.7	12.9	5.9	61.4
36 plants.....	1912	.....	(¹)	4.4	4.5	10.9	13.2	5.8	61.2
	1913	.....	(¹)	.5	5.4	12.1	13.8	5.7	² 62.6
Bessemer converters:									
9 plants.....	1907	23.1	0.7	1.0	.5	7.5	20.5	23.7	³ 23.1
	1908	28.5	1.4	2.0	2.4	7.7	27.1	14.8	16.0
	1909	22.0	1.8	1.2	.5	6.1	24.9	26.1	17.5
	1910	17.5	7.2	.....	3.0	.8	30.0	12.9	⁴ 28.6
10 plants.....	1910	16.6	6.8	.....	3.1	.9	32.8	12.4	⁵ 27.4
	1911	19.4	1.1	1.1	2.5	6.8	40.5	19.7	8.8
10 plants.....	1911	19.3	1.1	1.1	2.4	6.7	40.9	19.6	8.7
	1912	23.2	1.0	1.4	1.6	6.6	29.9	21.5	14.6
10 plants.....	1912	21.6	2.2	1.4	1.6	7.0	30.1	20.7	15.4
	1913	17.0	7.6	.....	.8	7.7	33.2	23.7	10.0
Open-hearth furnaces:									
17 plants.....	1910	.1	.9	.2	1.9	12.5	24.9	32.8	26.6
	1911	.....	1.3	.....	2.2	24.6	22.9	34.4	14.6
17 plants.....	1911	.....	1.3	.....	2.2	24.8	22.8	34.3	14.6
	1912	.....	1.7	.2	1.6	10.9	25.9	39.8	19.9
17 plants.....	1912	.....	1.7	.1	1.5	10.5	23.3	39.5	23.4
	1913	.....	1.1	.4	1.2	7.5	22.7	36.6	30.5
Blooming mills:									
19 plants.....	1910	2.3	5.9	.....	1.0	10.3	56.5	6.6	17.4
	1911	1.6	7.7	.....	1.6	11.3	55.8	10.0	12.0
	1912	2.1	7.6	.....	1.3	11.4	54.7	10.6	12.2
19 plants.....	1912	2.2	8.0	.....	1.3	11.1	51.7	13.3	12.4
	1913	2.1	7.6	.....	1.0	12.3	52.1	16.5	8.3

¹ Less than one-tenth of 1 per cent.

² Including less than one-tenth of 1 per cent whose full-time working hours per week were 91.

³ Including 0.1 per cent whose full-time working hours per week were 91.

⁴ Including 3.3 per cent whose full-time working hours per week were 85.

⁵ Including 3.1 per cent whose full-time working hours per week were 85.

PER CENT OF EMPLOYEES IN THE PRINCIPAL PRODUCTIVE OCCUPATIONS IN EACH DEPARTMENT WORKING EACH SPECIFIED NUMBER OF HOURS PER WEEK, BY YEARS, 1907 TO 1913 OR 1910 TO 1913—Concluded.

Department, and number of plants.	Year.	Per cent of employees whose full-time hours per week were—							
		48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Plate mills:									
11 plants.....	1910	.....	.....	.....	7.4	57.4	32.0	0.8	2.5
	1911	.....	.....	0.3	8.7	46.6	42.4	1.2	.7
	1912	.....	.....	.3	8.5	43.9	43.0	2.7	1.7
11 plants.....	1912	.....	.....	.1	8.2	41.9	42.5	5.1	2.2
	1913	.....	.....	.2	6.6	41.9	44.3	4.7	2.2
Standard rail mills:									
6 plants.....	1910	4.3	1.8	.....	7.7	3.6	51.9	.7	30.0
	1911	4.5	2.2	.....	4.4	8.5	71.1	6.2	3.1
7 plants.....	1911	4.1	2.0	.....	4.3	8.0	71.9	6.9	2.9
	1912	3.8	1.9	.....	4.7	7.5	71.8	8.2	2.1
7 plants.....	1912	3.9	1.5	.....	3.9	7.9	78.1	3.2	1.5
	1913	3.6	1.5	.....	6.7	4.2	79.7	2.8	1.5
Bar mills:									
15 plants.....	1907	4.5	4.6	7.8	9.0	51.6	19.4	2.6	.5
	1908	4.1	7.1	7.4	12.4	47.2	20.1	1.4	.4
	1909	3.9	6.7	7.0	10.2	58.8	9.3	3.4	.5
	1910	3.6	6.2	6.3	11.8	57.4	12.9	1.2	.6
25 plants.....	1910	11.1	8.1	3.8	11.7	45.5	16.5	2.5	.8
	1911	12.1	10.4	7.7	6.9	48.1	13.7	1.1	.2
26 plants.....	1911	11.4	10.6	8.5	8.0	46.7	13.5	1.0	.2
	1912	10.8	11.8	9.9	7.3	45.1	13.7	1.3	.2
26 plants.....	1912	10.8	11.3	15.8	7.0	41.2	12.5	1.3	.2
	1913	2.2	20.8	15.3	7.6	46.6	5.0	2.4	.2
Sheet mills:									
9 plants.....	1910	81.3	.1	.5	9.7	3.7	4.3	.1	.4
	1911	83.9	.1	.5	7.1	4.5	3.5	.....	.4
9 plants.....	1911	83.6	.1	.4	7.0	4.9	3.5	.....	.4
	1912	84.0	.1	.4	7.3	5.1	2.8	.1	.2
8 plants.....	1912	87.1	.1	.5	5.5	3.2	3.1	.2	.2
	1913	86.8	.....	.8	4.5	3.5	4.4	.....	.....
Tin-plate mills:									
5 plants.....	1910	80.5	2.1	10.8	4.0	2.8	.....	.....	.....
	1911	80.8	2.2	9.2	5.2	2.5	.1	.....	.....
6 plants.....	1911	80.1	2.1	9.2	5.5	3.1	.1	.....	.....
	1912	80.3	3.0	8.6	5.2	2.7	(^b)	(^b)	.....
6 plants.....	1912	79.3	2.9	8.5	5.9	3.1	.1	.1	(^b)
	1913	78.9	1.0	9.1	6.2	4.6	(^b)	.1	.....

¹ Including 1.2 per cent whose full-time working hours per week were 91.

² Including 0.7 per cent whose full-time working hours per week were 91.

³ Including 0.8 per cent whose full-time working hours per week were 91.

⁴ Including 0.1 per cent whose full-time working hours per week were 84½, and less than one-tenth of 1 per cent whose full-time working hours per week were 91.

⁵ Less than one-tenth of 1 per cent.

COMMON LABORERS.

The rate of wages paid common laborers is to a large extent a basic rate from which are determined the rates for other occupations requiring little skill, hence the rate for common labor is of importance beyond the limits of the occupation proper. The rate per hour is practically the same in all the departments of a plant, but the earnings per day or week, of course, are determined by the number of hours worked.

There are in every department various occupations which require little skill but which have distinctive names and are necessary to the proper operation of the department, and employees in these occupations must be on duty during the entire working time of the department. They are usually paid very little if any more than the regular rate for common labor, but such positions are eagerly sought by laborers, owing to the regularity of employment and the consequent stability of earnings, as well as to the fact that men in these occupations are in line for promotion. Employees in these occupations are not generally classified as common laborers by iron and steel establishments and that custom so far as possible has been followed in this report. However, even after this exclusion, 22 per cent of all the employees tabulated for 1913 are classified as laborers.

The table below shows the average rate per hour for common labor in the several departments, by years. For detailed information concerning the rates of wages per hour, weekly earnings, and customary hours of labor in the occupations the reader is referred to the several chapters of this report.

AVERAGE RATES OF WAGES PER HOUR OF COMMON LABORERS IN EACH DEPARTMENT, BY DISTRICTS, 1907 TO 1913 OR 1910 TO 1913.

[In this table each department of an establishment is counted as a separate plant. The number of plants stated is the total of all departments; the number of plants in each department is not shown here. The figures for each group of years are for identical plants.]

District, year, and number of plants.	All departments.	Blast furnaces.	Bessemer converters.	Open-hearth furnaces.	Bloom-ing mills.	Plate mills.	Stand-ard rail mills.	Bar mills.	Sheet mills.	Tin-plate mills.
Eastern:										
4 plants....1907	\$0.134	\$0.135	.....	.....	.....	.....	.....	\$0.132	.....	.....
.....1908	.120	.115	.....	.....	.....	.....	.....	.131	.....	.....
.....1909	.123	.119	.....	.....	.....	.....	.....	.131	.....	.....
.....1910	.138	.138	.....	.....	.....	.....	.....	.138	.....	.....
18 plants...1910	.142	.142	.....	\$0.145	\$0.143	\$0.131	.....	.147	.....	.....
.....1911	.141	.140	.....	.146	.139	.131	.....	.148	.....	.....
19 plants...1911	.141	.140	.....	.146	.139	.131	.....	.145	.....	.....
.....1912	.143	.144	.....	.152	.141	.131	.....	.142	.....	.....
20 plants...1912	.144	.144	.....	.152	.141	.133	.....	.145	.....	.....
.....1913	.157	.151	.....	.168	1	.151	.....	.160	.....	.....
Pittsburgh:										
17 plants...1907	.154	.152	\$0.156	.....	.....	.....	.....	.154	.....	.....
.....1908	.156	.154	.156	.....	.....	.....	.....	.157	.....	.....
.....1909	.152	.152	.153	.....	.....	.....	.....	.151	.....	.....
.....1910	.164	.165	.164	.....	.....	.....	.....	.163	.....	.....
57 plants...1910	.164	.166	.164	.162	.168	.167	\$0.161	.161	\$0.164	\$0.165
.....1911	.166	.165	.167	.164	.170	.168	.169	.163	.166	.163
59 plants...1911	.166	.165	.167	.164	.170	.168	.169	.163	.166	.164
.....1912	.167	.164	.167	.165	.169	.173	.167	.163	.169	.169
59 plants...1912	.167	.163	.168	.165	.169	.172	.168	.163	.168	.167
.....1913	.190	.188	.192	.190	.192	.193	.191	.182	.191	.190
Great Lakes and Middle West:										
12 plants...1907	.158	.162	.154	.....	.....	.....	.....	.159	.....	.....
.....1908	.153	.152	.152	.....	.....	.....	.....	.158	.....	.....
.....1909	.151	.153	.146	.....	.....	.....	.....	.157	.....	.....
.....1910	.162	.161	.159	.....	.....	.....	.....	.169	.....	.....
37 plants...1910	.163	.162	.161	.162	.163	.164	.163	.167	.....	.....
.....1911	.166	.166	.164	.166	.166	.164	.169	.166	.....	.....

AVERAGE RATES OF WAGES PER HOUR OF COMMON LABORERS IN EACH DEPARTMENT, BY DISTRICTS, 1907 TO 1913 OR 1910 TO 1913—Concluded.

District, year, and number of plants.	All departments.	Blast furnaces.	Bessemer converters.	Open-hearth furnaces.	Bloom-ing mills.	Plate mills.	Standard rail mills.	Bar mills.	Sheet mills.	Tin-plate mills.
Great Lakes and Middle West—Con.										
39 plants...1911	\$0.166	\$0.166	\$0.164	\$0.166	\$0.166	\$0.164	\$0.169	\$0.166	.....	.....
1912	.167	.167	.166	.167	.167	.165	.169	.167	.....	.....
40 plants...1912	.168	.166	.166	.170	.167	.162	.169	.170	.....	.....
1913	.191	.189	.190	.193	.191	.188	.194	.194	.....	.....
Southern:										
6 plants...1907	.130	.130	.....	.....	.....	.....	.....	.....	.....	.....
1908	.111	.111	.....	.....	.....	.....	.....	.....	.....	.....
1909	.112	.112	.....	.....	.....	.....	.....	.....	.....	.....
1910	.127	.127	.....	.....	.....	.....	.....	.....	.....	.....
14 plants...1910	.129	.128	.....	.130	.131	.....	.....	.....	.....	.....
1911	.131	.131	.....	.130	.132	.....	.....	.....	.....	.....
14 plants...1911	.131	.131	.....	.130	.132	.....	.....	.....	.....	.....
1912	.131	.130	.....	.134	.131	.....	.....	.....	.....	.....
15 plants...1912	.130	.130	.....	.132	.131	.....	.....	.....	.....	.....
1913	.138	.136	.....	.150	.140	.....	.....	.....	.....	.....
Total:										
39 plants...1907	.151	.146	.155	.....	.....	.....	.....	.153	.....	.....
1908	.147	.140	.155	.....	.....	.....	.....	.153	.....	.....
1909	.145	.138	.151	.....	.....	.....	.....	.150	.....	.....
1910	.157	.152	.163	.....	.....	.....	.....	.161	.....	.....
126 plants...1910	.158	.150	.163	.157	.162	.159	.163	.160	\$0.164	\$0.165
1911	.161	.151	.166	.161	.163	.158	.169	.160	.166	.163
131 plants...1911	.161	.151	.166	.161	.163	.158	.169	.159	.166	.164
1912	.162	.152	.167	.163	.164	.160	.168	.159	.169	.169
134 plants...1912	.162	.152	.167	.164	.163	.161	.169	.160	.168	.167
1913	.183	.171	.192	.187	.184	.181	.193	.178	.191	.190

EXPLANATION OF SCOPE AND METHOD.

The scope of the present investigation is stated in part on page 5. The number of plants and the number of employees for which data were obtained each year are specified in the following table:

NUMBER OF PLANTS AND NUMBER OF EMPLOYEES INCLUDED IN THIS REPORT, BY DEPARTMENTS, 1907 TO 1913 OR 1910 TO 1913.

Blast furnaces.			Bessemer converters.			Bar mills.		
Number of identical plants.	Year.	Number of employees.	Number of identical plants.	Year.	Number of employees.	Number of identical plants.	Year.	Number of employees.
20...	1907	4,278	9....	1907	1,757	15...	1907	2,378
	1908	3,028		1908	1,179		1908	2,216
	1909	4,104		1909	1,352		1909	2,315
	1910	4,381		1910	1,649		1910	2,560
34...	1910	7,050	10...	1910	1,730	25...	1910	4,092
	1911	5,268		1911	1,342		1911	3,707
35...	1911	5,336	10...	1911	1,350	26...	1911	3,924
	1912	5,973		1912	1,460		1912	4,050
36...	1912	6,101	10...	1912	1,494	26...	1912	4,114
	1913	6,589		1913	1,661		1913	4,320

NUMBER OF PLANTS AND NUMBER OF EMPLOYEES INCLUDED IN THIS REPORT, BY DEPARTMENTS, 1907 TO 1913 OR 1910 TO 1913—Concluded.

Open-hearth furnaces.			Blooming mills.			Plate mills.		
Number of identical plants.	Year.	Number of employees.	Number of identical plants.	Year.	Number of employees.	Number of identical plants.	Year.	Number of employees.
17...	1910	3,341	19...	1910	1,064	11...	1910	1,330
17...	1911	3,065	19...	1911	948	11...	1911	1,203
17...	1911	3,073	19...	1912	988	11...	1912	1,203
17...	1912	3,182	19...	1912	975	11...	1912	1,248
17...	1912	3,246	19...	1913	998	11...	1913	1,256
17...	1913	3,498						

Standard rail mills.			Sheet mills.			Tin-plate mills.		
Number of identical plants.	Year.	Number of employees.	Number of identical plants.	Year.	Number of employees.	Number of identical plants.	Year.	Number of employees.
6....	1910	1,535	9....	1910	2,346	5....	1910	2,149
6....	1911	1,252	9....	1911	2,772	5....	1911	2,310
7.....	1911	1,355	9....	1911	2,781	6....	1911	2,487
7.....	1912	1,457	8.....	1912	2,716	6....	1912	2,694
7.....	1912	1,435	8.....	1912	2,439	6....	1912	2,739
7.....	1913	1,427	8.....	1913	2,487	6....	1913	2,778

Reports from 20 identical blast furnaces were obtained for the period 1907 to 1910. These same 20 plants furnished data for the years 1911 and 1912 and 14 additional plants reported data for the years 1910, 1911, and 1912, thereby making comparable data available for 34 plants for 1910 and 1911, while another plant was included for 1911 and 1912, making figures available for those two years from 35 plants, and for 1912 and 1913 still another plant was included, making 36 blast-furnace plants for these two years. Comparable data were obtained for 4,278 blast-furnace employees in 1907 and 4,381 employees in 1910; for 7,050 in 1910 and 5,268 in 1911; for 5,336 in 1911 and 5,973 in 1912; and for 6,101 in 1912 and 6,589 in 1913.

Reports were obtained from 9 identical Bessemer converting plants for the years 1907 to 1910, inclusive, and from 10 identical plants for the years 1910 to 1912, inclusive. Data for 1910 were not available, however, for one occupation in one of the ten plants reporting, so that two reports are shown for 1911. The first, 1,342, represents the number with data available for comparison with 1910; and the second, 1,350, the number with data available for comparison with 1912. A second group of 10 identical plants furnished data for 1912 and 1913. The figures for other departments are explained in like manner.

The figures for 1910 published in this report are a part of the data included in the report on "Conditions of Employment in the Iron and Steel Industry," made by this Bureau and published as Senate Document No. 110, Sixty-second Congress, first session. These

figures for 1910 were collected in the fall of that year. The collection of data for the other years covered in Bulletin 151, from 1907 to 1912, was begun in the fall of 1912, complete reports for all years having been obtained at one time, and plants not continuously in operation from the time of starting until 1912 having been omitted.

The collection of data for the year 1913 was begun in the summer of that year, and to keep a fair representation it was necessary, in some instances, to report new plants in place of those which for one reason or another were temporarily or permanently not in operation. In such added plants comparable data for 1912 were obtained together with data for 1913.

Data for establishments were not included in this report unless information for at least two years was available. Direct comparisons of data for two or more successive years can be made properly only when the plants furnishing the data are identical, and the word is here used in the strictest sense. By identical plants is meant not only identical establishments of identical companies but also identical units or departments—as, for example, separate bar mills or groups of open-hearth furnaces. Frequently in this report the number of plants remains unchanged from year to year while the plants are not identical—one plant may have been shut down for repairs and another substituted, or when there was no change in the plants themselves it may have been impossible in one plant to obtain reports for one occupation in one year, or an establishment reporting several bar mills may have ceased operating one, or have added a new one. As in nearly every instance substituted plants were located in the immediate vicinity of those omitted it frequently happens that the new data corresponds very closely to the old and the two reports for one year are, therefore, in such cases nearly the same.

In some instances an occupation as tabulated embraced two or more classes of employees (as, for example, shearmen's helpers in blooming mills) and for some reason it may have been impossible to secure reports for one year for one class. In such a case, while the number of plants for the occupation remains unchanged, the plants in the two years are not considered identical and two reports are made for the connecting year, one comparable with the previous year when all classes making up the occupation were represented, and another comparable with the succeeding year when one class was omitted.

Information was secured from plants located in 11 States. To make the groups of data of sufficient volume to be of representative value, the several plants covered have been divided into four districts. These districts were not established strictly on geographical lines, but rather according to the logical distribution of the industry. The "Eastern district" includes eastern and central Pennsylvania,

Maryland, and New Jersey. The "Pittsburgh district" includes not only the plants in Pittsburgh proper but also those in western Pennsylvania, those along the border line in Ohio from Youngstown south to Bellaire, and the plants which are located in the "panhandle" of West Virginia. The "Great Lakes and Middle West district" includes plants scattered along the Great Lakes from western New York to Illinois and Wisconsin, and also some plants in inland districts, including Colorado. Although this is a very large territory geographically, it is essentially a unit industrially (so far as the iron and steel industry is concerned), the wage rates of the entire district being based largely on those paid in the two producing centers, Buffalo and Chicago. The "Southern district" includes the establishments in Virginia, Tennessee, Georgia, Alabama, Kentucky, and in the southern part of Ohio. The southern Ohio plants are included with the Southern district because the conditions both as to wages paid and the general class of labor employed resemble much more closely the conditions of the Alabama and Kentucky plants than they do those of the other plants of Ohio.

The plants included in the report are representative of the industry, and a fair apportionment is given to the several districts. The table following shows the number of plants, the number of furnaces, converters, or mills represented, and the number of employees in the several departments for which data are published for the year 1913, by districts.

NUMBER OF PLANTS, NUMBER OF FURNACES, CONVERTERS, OR MILLS, AND NUMBER OF EMPLOYEES, INCLUDED IN THIS REPORT, BY DISTRICTS, 1913.

Department.	Eastern district.			Pittsburgh district.			Great Lakes and Middle West district.		
	Plants.	Furnaces, converters, or mills.	Employees.	Plants.	Furnaces, converters, or mills.	Employees.	Plants.	Furnaces, converters, or mills.	Employees.
Blast furnaces.....	6	11	743	9	43	2,469	10	37	1,932
Bessemer converters.....				6	15	1,176	4	11	485
Open-hearth furnaces.....	4	29	490	5	82	1,571	6	60	1,171
Blooming mills.....	3	3	100	8	10	482	6	7	327
Plate mills.....	2	6	339	5	8	668	4	4	249
Standard rail mills.....				3	3	507	4	4	920
Bar mills.....	8	16	1,083	10	32	2,309	8	16	923
Sheet mills.....				8	76	2,487			
Tin-plate mills.....				6	75	2,778			

Department.	Southern district.			Total.		
	Plants.	Furnaces, converters, or mills.	Employees.	Plants.	Furnaces, converters, or mills.	Employees.
Blast furnaces.....	11	23	1,445	36	114	6,589
Bessemer converters.....				10	26	1,661
Open-hearth furnaces.....	2	11	266	17	182	3,498
Blooming mills.....	2	2	89	19	22	998
Plate mills.....				11	18	1,256
Standard rail mills.....				7	7	1,427
Bar mills.....				26	64	4,320
Sheet mills.....				8	76	2,487
Tin-plate mills.....				6	75	2,778

The greater part of the data presented was obtained by personal visits of agents of this Bureau to the several plants. A part of the information was obtained from the plants by correspondence, on schedules and under instructions prepared by the Bureau. In certain instances agents visited plants that had furnished data by correspondence, to harmonize data not clearly expressed on the schedule.

In general, the number of employees shown in the several tables, with the exception of laborers and those employed in certain other unskilled occupations, represents the number of employees required to man properly the positions in the mill under normal operating conditions, and is not the number of employees who might have appeared on the pay rolls during the pay period covered. For example, a certain operation required 4 men, but during the pay-roll period there were times when one of these 4 did not report for duty and the position was filled by a different employee, and during the pay period a total of 6 men covered the 4 positions and appeared on the pay roll. In such instance the number of employees was reported as 4 and not 6.

The data presented are for one pay-roll period in each year—the pay roll for the second half of May, except in the very few plants where abnormal conditions in May made it desirable to take some other period.

The full-time hours of labor per week shown in the tables of the report are the regular hours of work of the several employees under normal conditions in the establishment. The working time is the time on duty including intervals of waiting for work; in other words, the time between the hour of reporting for duty and the hour of going off duty.

The working time of employees is not always the working time of their occupation as a whole. Some plants operating 7 days per week make provision for laying off each employee one day a week. In such a plant the full-time hours per week of an employee working 12 hours a day is 72 hours. In a plant making no such provision, the full-time hours per week of an employee working 12 hours a day is 84 hours. The full-time hours per week and the relative or index numbers based thereon do not in any way indicate the extent of unemployment. Employees may work overtime, broken time, or be laid off, or a temporary reduction may be made in working hours, without such change affecting the full-time hours per week.

The rates of wages per hour appearing in the tables include both the wages of time workers and the earnings of tonnage or piece workers. All time rates by the day or week have been reduced to rates per hour. The earnings of tonnage workers, the earnings of employees working at both time and tonnage rates, and the earnings of employees who, in addition to a regular time rate, receive a bonus based on produc-

tion, also have been reduced to earnings per hour by dividing the earnings by the hours worked. The time workers and tonnage workers of each occupation are combined as one group.

In this connection it should be noted that while in other industries the earnings of employees paid on a piecework basis usually are proportionate to the exertion and skill of the individual employee, in the iron and steel industry the earnings of tonnage workers depend upon the production of an entire department or group of employees.

A change in the earnings per hour of tonnage workers does not of necessity indicate a change in tonnage or piece rates. A change in methods or machinery, a speeding up, or more steady work resulting from a greater volume of business, may increase the hourly earnings or, on the other hand, changes in methods, a slowing down in speed, or a lull in business may reduce hourly earnings. Varying intervals while on duty waiting for work may also affect hourly earnings.

The reports from the plants in most instances showed wages of each individual employee, but, in some cases, particularly in the sheet and tin mills, reports gave the aggregate wages of two or more persons in an occupation instead of wages of each individual. In such plants the classification of wages per hour is made of averages of aggregate wages of the employees, instead of wages of each individual, and hence the classification in the tables of this report for the department as a whole is to some extent a combination of such averages and of individual earnings.

The full-time weekly earnings are the earnings per week of employees working full time, or the earnings on broken time reduced to equivalent earnings for a full week. In considering changes in full-time earnings per week notice should also be taken of changes in full-time hours of labor per week. A reduction in the hours of a pieceworker may reduce his earnings in a week and leave his earnings per hour unchanged, while a reduction of hours for a time worker will, if his weekly rate remains the same, increase his rate per hour.

METHOD OF COMPUTING AVERAGES.

The averages of full-time hours per week, rates of wages per hour, and full-time weekly earnings are computed by adding the data for each individual employee and dividing the total by the number of employees.

It will be observed that the average full-time weekly earnings generally is not exactly the same as the result that would be obtained by multiplying the average rate per hour by the average hours per week, owing to the fact that the hourly rates for individual employees are based on varying hours per week, which has the effect of changing

the relative weighting of the wages of the several employees. A hypothetical illustration shows the difference.

Employees.	Full-time hours per week.	Rates of wages per week.	Rates of wages per hour.
1	48	\$15.00	\$0.313
1	54	14.00	.259
1	54	16.00	.296
1	60	12.00	.200
Total..... 4	216	57.00	1.068
Average.....	54	14.25	.267

The product of \$0.267 multiplied by 54 is \$14.42, while the average earnings per week are \$14.25.

REASON FOR TAKING 1913 AS BASE YEAR.

Relative full-time hours of labor, relative wages per hour, and relative full-time weekly earnings are briefly described on pages 6 and 7.

It will be observed that in the tables of relative numbers the data for the latest year available, 1913 in this report, are taken as the base or 100 per cent. Relative or index numbers are most frequently used to compare the latest year with preceding years, as 1912 with 1913, 1911 with 1913, etc., and a comparison with 100 conveys a clearer idea than a comparison of any two numbers, neither of which is 100. For example, the ratio 96.4:100 is more readily grasped than the equal ratio 137.3:142.4.

Another and more important reason for taking the last year, 1913, as the base, or 100 per cent, is that the data for 1913 are greater in amount and better in quality than for any preceding year. Thus, for blast furnaces data were obtained from 20 plants for 1907 and from 36 plants for 1913. While the average for 20 plants might possibly have been a fairly acceptable base, the average of nearly twice as many plants recently canvassed becomes more nearly representative of the industry, and thus a more satisfactory base. Starting with 1913 and computing the index back year by year to 1907 the weakness, if any, in the data of earlier years can not manifest itself in the relative numbers except in the earlier years. But if the average for 1907 were taken as a base, any weakness beginning in the index of the earlier years would be continued down through the later years, though the basic data for such later years were entirely satisfactory.

METHOD OF COMPUTING RELATIVE NUMBERS.

The method of computing the relative numbers is best explained by an illustration. The full-time weekly earnings in 1911, 1912, and 1913 of stockers in the blast-furnace department is taken as an example.

	Number of identical plants.	Year.		
		1911	1912	1913
Full-time weekly earnings.....	32	\$13.40	\$13.61	.....
Relative full-time weekly earnings computed therefrom.....	34	88.5	89.9	\$14.98 100.0
Full-time weekly earnings in identical establishments covering the full 3 years.....	32	\$13.40	\$13.61	\$15.03
Relative full-time weekly earnings computed therefrom.....		89.2	90.6	100.0

Data are available for this occupation from 1907 to 1913, but the figures for 1911 to 1913 only are used, being sufficient to illustrate the method of computing the relative numbers.

The average for 1913 is taken as the base (100), then \$13.46 divided by \$14.98 equals 89.9 (89.853), the relative for 1912. The ratio of 1911 to 1912 is \$13.40 divided by \$13.61. The relative for 1912 just determined, 89.9 (89.853), multiplied by \$13.40 divided by \$13.61 equals 88.5 (88.466), the relative for 1911. In this report the relative number is published to one decimal place.

This method of computing relative numbers is used because of the change that was made in the number of establishments to get a wider representation in the later years. In computing a series of relative numbers, account must be taken of changes in plants from year to year, as some discontinue operations or cease to be representative and new plants come into operation.

Thirty-two plants furnished data for the entire 3-year period shown above. In addition, two other plants furnished data for 1912 and 1913. The earnings in these two plants were a little lower than in the others, making the average in 1912 \$13.46 in the 34 plants, as against \$13.61 in 32 plants. With a varying number of plants, such differences must be expected.

The average earnings in 1913 for the 34 plants was \$14.98. In the 32 plants, running through the full 3-year period, the average earnings in 1913 were \$15.03. Thus the averages for 34 plants show an increase in earnings from \$13.46 in 1912 to \$14.98 in 1913, while the averages for 32 plants show an increase from \$13.61 in 1912 to \$15.03 in 1913. Relatives have been computed on the data of the 32 plants and are presented in the table simply to illustrate the difference shown by relatives based on different amounts of data. The relatives based on the greatest amount of available data, being more nearly representative, are presented in the several tables of relative numbers in the report.

A word of caution is given as to the use of relative numbers. The per cent of increase or decrease from one year to another is not the difference between the relative numbers for the two years. Thus, in

the table above, the relative full-time weekly earnings of stockers increased from 88.5 in 1911 to 89.9 in 1912, a difference of 1.4 in the relatives. This difference, 1.4, is 1.6 per cent of the relative 88.5. Thus the increase in earnings per full week from 1911 to 1912 was 1.6 per cent.

The above illustration shows the method of computing the relative numbers for an occupation. Precisely the same method was used in computing the relative numbers for each department as a whole. For example, for each year the full-time weekly earnings of each employee of all occupations covered were added and the sum divided by the total employees covered, giving the average full-time weekly earnings of all employees in the department. From these averages (unpublished) the relative full-time weekly earnings for the industry were computed by the method illustrated above. This explanation applies equally to relative full-time hours of labor and to relative rates of wages per hour.

DESCRIPTION OF DEPARTMENTS AND OF OCCUPATIONS.

Descriptions of the functions and operations of the several departments of the iron and steel industry covered by this report and of the various occupations in each department are omitted from the present report, but may be found in Bulletin No. 151 of this Bureau, as may also figures for each geographical division for years preceding 1913.

PREVIOUS REPORTS.

Wages in the iron and steel industry have entered into several reports published by the Bureau of Labor Statistics, among such reports being the Sixth Annual, the Nineteenth Annual, and Bulletins Nos. 59, 65, 71, 77, and 151.

Two Senate documents contain reports of investigations made by the Bureau of Labor Statistics treating in part of wages in the iron and steel industry, namely:

Report on Strike at Bethlehem Steel Works. Senate Document No. 521, Sixty-first Congress, second session.

Report on Conditions of Employment in the Iron and Steel Industry in the United States. (4 vols.) Senate Document No. 110, Sixty-second Congress, first session.

The last-named document is a very comprehensive study of the wages, hours of labor, working conditions, etc., in the industry in the year 1910. It covered all occupations in the industry and practically all plants in operation in the United States. The wage data of this report were based mostly on a half-month pay roll, in most instances in the month of May.

The resources of the Bureau of Labor Statistics would not warrant such a large and expensive study to be made each year. This present report contains representative data only, as before stated, but such data cover not only 1910, but all the years from 1907 to 1913, inclusive, in three departments and from 1910 to 1913 in six departments.

BLAST FURNACES.

SUMMARY.

Summary figures relating to this department of the iron and steel industry are given with figures for other departments in the introductory summary on pages 5 to 15. An explanation of the scope of the investigation and of the methods employed is given on pages 15 to 23.

Briefly stated, in 1913 the average rate of wages or earnings per hour of employees in the principal productive occupations in blast furnaces was from 8.3 per cent to 21.8 per cent higher than in any one of the six years preceding, and, despite the fact that the average full-time hours were 2.9 per cent lower than at the beginning of the seven-year period, this very marked increase in rates of wages was so reflected in full-time weekly earnings that the average earnings of such employees in 1913 were from 9.5 per cent to 19.2 per cent higher than in any one of the six years preceding.

The most significant facts concerning the several occupations of the blast-furnace industry appearing in this report are summarized in the table following. Data are presented for each year from 1907 to 1913, inclusive, two reports being given for 1910, for 1911, and for 1912, owing to changes in the number of plants from year to year. Figures for identical plants are grouped together. The data for 1913 represent 6,589 employees, in the 16 occupations covered, and were obtained from 36 plants having a total of 114 stacks in blast.

Referring to the first occupation presented, laborers, direct comparison can be made of data from 20 identical plants from 1907 to 1910, for 34 identical plants for 1910 and 1911, for 35 identical plants for 1911 and 1912, and for another group of 35 identical plants for 1912 and 1913. The first line shows that in 1907 the 20 blast-furnace plants which furnished information employed 957 laborers and that the average hours of work of these laborers, when working full time, was 75.8 hours per week. For 11.1 per cent of the 957 laborers the full-time hours of work per week were 60 and under; for 36.6 per cent, over 60 and under 72; for 0.1 per cent, 72; for 5.4 per cent, over 72 and under 84; and for 46.8, or nearly one-half, 84. The average rate of wages or earnings per hour of laborers in the year considered (1907) was \$0.146. Of the total number 3.7 per cent earned under 12 cents per hour, 28.6 per cent received 12 and under 14 cents per hour, 39.8 per cent received 14 and under 16 cents per hour, and 27.9 per cent received 16 and under 18 cents per hour. The average earnings for a full week's work was \$11.13. The other lines of the table are read in the same manner.

Referring to the last column of the table, it is seen that in 20 identical plants the average full-time weekly earnings of laborers was \$11.13 in 1907. In the next two years there was a drop to \$10.24 and \$10.17, respectively, and in 1910 an advance to \$11.18. While the average full-time weekly earnings in 1910 in 20 plants was \$11.18, the average in 34 plants for the same year was \$11.23. In the 34 plants there was a decrease from \$11.23 per week in 1910 to \$11.13 in 1911. The difference between \$11.23 and \$11.13 measures the change from 1910 to 1911. It would not be a proper comparison, however, to state that earnings decreased only from \$11.18 in 1910 to \$11.13 in 1911, because of the change in plants and the difference known to exist in the averages for 1910 in the two groups of plants. In 35 plants there was an increase from \$11.14 in 1911 to \$11.15 in 1912, and in the second group of 35 plants an increase from \$11.15 in 1912 to \$12.43 in 1913. The other items of this table should be studied with like care.

Comparing the average full-time weekly earnings for 1913 of the several occupations it is seen that the lowest earnings are found in the occupation of laborers, the average being \$12.43. Several other occupations receive but little more. The highest earnings in any occupation of this department are found in the occupation of blowers, the average full-time weekly earnings in this occupation being \$26.84 in 1913.

In this table occupations are grouped according to the wages paid, beginning with the lowest-paid group, and the occupations in each group are presented in alphabetical order.

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS, IN EACH OF THE PRINCIPAL OCCUPATIONS, 1907 TO 1913—BLAST FURNACES.

[The figures for each group of years are for identical plants.]

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full- time weekly earn- ings.
				60 and under.	Over 60 and under 72	72	Over 72 and under 84	84		Under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 cts. and over.	
Laborers:															
20 plants.....	1907	957	75.8	11.1	36.6	0.1	5.4	46.8	\$0.146	3.7	28.6	39.8	27.9	.....	\$11.13
	1908	718	72.8	19.8	37.9	.....	15.2	27.2	.140	24.7	10.3	41.1	24.0	.....	10.24
	1909	757	73.0	13.5	49.9	2.0	7.0	27.6	.138	23.6	25.9	24.4	26.0	.....	10.17
	1910	902	73.6	17.6	36.8	2.5	5.0	38.0	.152	4.2	21.8	21.1	52.9	.....	11.18
34 plants.....	1910	1,423	74.7	18.9	28.4	1.8	20.9	29.9	.150	3.1	23.3	32.7	40.8	.....	11.23
	1911	935	73.3	21.1	30.8	3.0	14.3	30.8	.151	4.1	25.7	24.0	46.3	.....	11.13
35 plants.....	1911	937	73.3	21.0	30.7	3.0	14.3	30.9	.151	4.1	25.6	24.1	46.2	.....	11.14
	1912	961	73.1	20.0	31.4	8.4	9.6	30.6	.152	3.2	24.7	23.6	48.4	0.1	11.15
35 plants.....	1912	1,049	73.1	19.7	30.3	10.4	8.9	30.7	.152	3.3	23.0	26.3	47.3	.1	11.15
	1913	1,273	72.5	22.1	34.4	9.8	4.2	29.5	.171	.8	14.1	17.0	19.6	48.4	12.43

¹ Including one-tenth of 1 per cent whose full-time hours per week were 91.

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS, IN EACH OF THE PRINCIPAL OCCUPATIONS, 1907 TO 1913—BLAST FURNACES—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—				Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.	
				60 and under.	Over 60 and under 72	72	Over 72 and under 84		Under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 cts. and over.		
Bottom fillers: 7 plants.....	1907	293	84.0	.....	.....	.....	.....	100.0	\$0.160	35.5	10.9	30.4	23.2	.....	\$13.40
	1908	194	84.0	.....	.....	.....	.....	100.0	.150	40.2	17.5	21.6	20.6	.....	12.59
	1909	282	84.0	.....	.....	.....	.....	100.0	.138	68.8	.....	17.0	14.2	.....	11.61
	1910	267	84.0	.....	.....	.....	.....	100.0	.160	32.6	18.7	30.0	18.7	.....	13.41
14 plants.....	1910	672	84.0	.....	.....	.....	.....	100.0	.152	26.2	47.6	14.3	11.9	.....	12.77
	1911	391	84.0	.....	.....	.....	.....	100.0	.148	35.0	39.9	8.7	16.4	.....	12.46
15 plants.....	1911	417	84.0	.....	.....	.....	.....	100.0	.149	32.9	41.7	10.1	15.3	.....	12.50
	1912	468	82.2	.....	.....	14.7	.....	85.3	.152	27.6	44.7	11.5	16.2	.....	12.53
14 plants.....	1912	423	82.0	.....	.....	16.3	.....	83.7	.153	30.5	33.6	18.0	18.0	.....	12.63
	1913	461	81.6	.....	.....	19.7	.....	80.3	.167	20.6	41.2	.....	21.3	16.9	13.74
Cinder men: 20 plants.....	1907	262	83.6	.....	1.5	.....	10.3	88.2	.173	5.4	24.4	45.0	9.2	16.0	14.46
	1908	245	82.6	.....	8.2	.....	9.8	82.0	.156	22.4	33.5	34.3	.....	9.8	12.88
	1909	380	82.2	0.8	8.7	.....	12.6	77.9	.150	34.4	19.7	40.3	.....	5.5	12.34
	1910	357	82.9	.3	6.7	.....	5.6	87.4	.166	11.8	11.5	62.7	11.8	2.2	13.78
32 plants.....	1910	482	82.9	.2	7.1	.....	4.1	88.6	.163	11.6	19.9	58.1	8.7	1.7	13.56
	1911	339	81.3	.....	9.7	10.3	1.8	78.2	.158	22.8	21.2	45.7	9.7	.6	12.84
32 plants.....	1911	333	81.3	.....	9.9	10.5	1.8	77.8	.158	23.1	22.2	44.1	9.9	.6	12.82
	1912	397	75.2	23.1	11.1	9.1	.3	56.4	.164	10.8	28.5	57.3	15.6	7.8	12.20
33 plants.....	1912	356	77.3	14.6	10.1	11.8	.3	63.2	.162	12.4	22.8	44.4	18.5	2.0	12.49
	1913	380	79.9	1.3	12.4	15.3	6.8	64.2	.179	9.2	12.1	12.6	35.5	30.5	14.27
Keepers' helpers: 20 plants.....	1907	616	84.0	.....	.....	.....	.....	100.0	.165	23.1	7.5	35.1	18.8	15.6	13.89
	1908	409	84.0	.....	.....	.....	.....	100.0	.160	28.3	3.9	39.4	42.1	6.8	13.41
	1909	596	84.0	.....	.....	.....	.....	100.0	.155	32.0	9.1	35.4	420.1	3.4	13.04
	1910	608	84.0	.....	.....	.....	.....	100.0	.169	15.7	13.7	30.9	31.6	8.2	14.22
34 plants.....	1910	877	84.0	.....	.....	.....	.....	100.0	.168	16.3	17.0	30.7	27.8	8.2	14.13
	1911	734	83.1	.....	.....	7.6	.....	92.4	.167	20.7	13.1	26.7	31.9	7.6	13.83
35 plants.....	1911	742	83.1	.....	.....	7.5	.....	92.5	.167	20.5	12.9	26.7	32.3	7.5	13.84
	1912	846	81.0	4.3	.....	14.9	.....	80.9	.170	16.3	16.3	22.7	33.0	11.7	13.74
36 plants.....	1912	870	80.2	7.6	.....	14.0	.....	78.4	.173	14.5	16.1	22.5	32.1	14.8	13.75
	1913	902	82.2	.....	.....	15.1	.....	84.9	.186	8.4	13.7	12.2	8.6	57.0	15.30
Larry men's helpers: 10 plants.....	1907	115	84.0	.....	.....	.....	.....	100.0	.159	8.7	29.6	61.7	.....	.....	13.35
	1908	79	84.0	.....	.....	.....	.....	100.0	.152	12.7	45.6	41.8	.....	.....	12.80
	1909	135	84.0	.....	.....	.....	.....	100.0	.149	35.5	30.4	34.1	.....	.....	12.53
	1910	134	84.0	.....	.....	.....	.....	100.0	.163	6.0	29.1	50.0	14.9	.....	13.69
19 plants.....	1910	278	84.0	.....	.....	.....	.....	100.0	.165	5.0	23.7	64.0	7.2	.....	13.88
	1911	294	82.6	.....	.....	11.6	.....	88.4	.168	4.8	15.6	72.8	6.8	.....	13.89
	1912	343	79.6	10.5	.....	12.5	.....	77.0	.173	4.1	5.2	74.3	5.8	10.5	13.67
23 plants.....	1912	359	79.6	10.0	.....	13.6	.....	76.3	.172	4.5	5.6	73.3	6.7	10.0	13.64
	1913	342	82.6	.....	.....	11.7	.....	88.3	.190	4.7	1.2	8.2	41.8	44.2	15.69
Pig-machine men: 9 plants.....	1907	193	84.0	.....	.....	.....	.....	100.0	.167	13.0	15.5	57.0	3.1	11.4	14.03
	1908	157	83.9	.....	.....	.....	1.9	98.1	.163	11.5	8.3	68.8	7.6	.....	13.69
	1909	152	83.9	.....	.....	.....	2.0	98.0	.162	15.1	7.2	64.5	9.2	3.9	13.57
	1910	182	83.8	.5	.5	.....	.....	98.9	.170	7.1	14.8	50.5	24.2	3.3	14.27
16 plants.....	1910	291	83.9	.3	.3	.....	.....	99.3	.169	5.8	15.1	57.0	19.9	2.1	14.14
	1911	259	82.4	.4	.....	12.7	.....	86.9	.169	11.2	13.1	53.3	17.8	4.6	13.90
17 plants.....	1911	267	82.4	.4	.....	12.4	.....	87.3	.169	10.9	12.7	51.7	19.5	5.2	13.98
	1912	275	81.9	.4	.....	17.1	.....	82.5	.171	6.5	8.4	63.3	18.2	3.6	13.97
	1913	290	81.8	.3	.....	17.2	.....	82.4	.192	2.8	3.4	12.1	38.6	43.1	15.69
Stockers: 18 plants.....	1907	824	81.4	1.7	9.0	.....	12.7	76.6	.170	13.5	15.4	53.3	1.2	16.6	13.83
	1908	473	79.1	.8	26.0	.....	14.8	58.4	.157	19.2	25.8	40.4	6.1	8.5	12.43
	1909	737	80.9	.....	9.6	.....	30.4	60.0	.158	27.6	18.1	38.8	6.5	9.1	12.75
	1910	904	81.0	.1	7.7	1.8	24.6	65.8	.166	22.0	9.0	43.9	18.3	6.9	13.72

**AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES
PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS, IN EACH OF THE PRIN-
CIPAL OCCUPATIONS, 1907 TO 1913—BLAST FURNACES—Continued.**

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full- time week- ly earnings.
				60 and under.	Over 60 and under 72	72	Over 72 and under 84	84		Under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 cts. and over.	
Stockers—Concluded.															
32 plants.....	1910	1,445	79.9	0.9	18.2	2.1	15.4	63.5	\$0.164	18.9	20.3	38.1	15.3	7.3	\$13.17
	1911	898	79.8	3.6	11.9	6.6	15.8	62.0	.167	15.6	17.7	42.3	16.9	7.5	13.36
32 plants.....	1911	904	79.7	4.1	11.8	6.5	15.7	61.8	.168	14.5	17.6	43.7	16.8	7.4	13.40
	1912	1,045	78.7	3.7	10.7	13.0	23.3	49.3	.173	9.8	14.8	46.6	20.8	8.0	13.61
34 plants.....	1912	1,069	78.8	3.5	10.5	12.9	22.8	50.2	.171	12.8	15.2	44.0	20.3	7.9	13.46
	1913	1,187	78.9	4.2	8.5	13.6	23.3	50.5	.190	9.6	6.5	8.2	32.3	43.5	14.98
Top fillers:															
8 plants.....	1907	66	84.0	.....	.....	.....	.....	100.0	.177	24.3	12.1	9.1	15.2	39.4	14.86
	1908	44	84.0	.....	.....	.....	.....	100.0	.168	40.9	.....	13.6	18.2	27.3	14.15
	1909	50	84.0	.....	.....	.....	.....	100.0	.161	44.0	20.0	.....	12.0	24.0	13.56
	1910	48	84.0	.....	.....	.....	.....	100.0	.181	8.3	33.3	8.3	.....	50.0	15.18
13 plants.....	1910	142	82.8	4.2	.....	.....	.....	95.8	.169	2.8	26.1	54.2	.....	16.9	13.85
	1911	84	82.0	7.1	.....	.....	.....	92.9	.170	19.1	23.8	33.3	2.4	21.4	13.67
14 plants.....	1911	92	82.2	6.5	.....	.....	.....	93.5	.171	17.4	21.7	30.4	10.9	19.5	13.84
	1912	96	80.0	6.3	.....	18.8	.....	75.0	.176	12.5	31.3	14.6	16.7	25.1	13.90
14 plants.....	1912	96	80.0	6.3	.....	18.8	.....	75.0	.175	16.7	27.1	14.6	16.7	25.1	13.81
	1913	98	80.3	6.1	.....	16.3	.....	77.6	.191	8.1	18.4	14.3	22.4	36.7	15.19
										Under 16 cts.	16 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 cents and over.	
Blowing engineer's as- sistants:															
11 plants.....	1907	67	84.0	.....	.....	.....	.....	100.0	.203	9.0	26.9	49.3	14.9	.....	17.02
	1908	51	84.0	.....	.....	.....	.....	100.0	.199	15.6	23.5	45.1	15.7	.....	16.72
	1909	74	84.0	.....	.....	.....	.....	100.0	.191	16.2	40.5	29.7	13.5	.....	16.08
	1910	66	84.0	.....	.....	.....	.....	100.0	.208	9.1	21.2	54.5	15.2	.....	17.48
18 plants.....	1910	94	84.0	.....	.....	.....	.....	100.0	.207	8.5	21.3	59.6	10.6	.....	17.38
	1911	91	83.2	.....	.....	6.6	.....	93.4	.205	8.8	23.1	63.7	4.4	.....	17.06
	1912	108	80.4	8.3	.....	10.2	.....	81.5	.211	7.4	18.5	66.7	7.4	.....	16.85
18 plants.....	1912	106	80.8	8.5	.....	6.6	.....	84.9	.213	3.8	18.9	69.8	7.5	.....	17.13
	1913	94	83.2	.....	.....	6.4	.....	93.6	.225	4.3	6.4	66.0	19.1	4.3	18.67
Iron handlers and loaders:															
9 plants.....	1907	203	73.2	.....	60.1	.....	5.9	34.0	.193	17.7	51.3	25.1	.....	5.9	14.20
	1908	163	73.0	.....	59.5	.....	8.6	31.9	.190	32.5	31.3	24.5	8.1	8.6	13.95
	1909	242	73.6	.....	57.0	.....	7.4	35.5	.177	31.0	40.9	20.7	7.4	.....	13.05
	1910	177	73.0	.....	59.3	.....	10.2	30.5	.195	20.3	45.2	18.6	15.8	.....	14.24
18 plants.....	1910	305	74.2	.....	58.7	.....	5.9	35.4	.194	18.4	49.5	17.7	11.8	2.6	14.36
	1911	300	72.7	1.3	63.0	.....	6.0	29.7	.195	18.0	42.7	25.0	7.3	7.0	14.11
19 plants.....	1911	308	73.0	1.3	61.4	.....	5.8	31.5	.195	17.5	44.1	24.4	7.1	6.8	14.17
	1912	359	72.2	7.8	49.9	10.0	5.0	27.3	.195	19.5	48.7	18.9	5.0	7.8	14.04
19 plants.....	1912	406	73.1	5.9	48.8	8.9	4.4	32.0	.206	16.2	44.1	19.7	5.2	14.8	15.11
	1913	446	72.5	10.0	47.3	9.2	4.0	29.4	.220	5.1	36.8	39.5	.9	17.7	16.07
Keepers:															
20 plants.....	1907	146	84.0	.....	.....	.....	.....	100.0	.218	12.3	6.9	64.4	16.4	.....	18.34
	1908	96	84.0	.....	.....	.....	.....	100.0	.210	14.6	6.3	75.0	4.2	.....	17.68
	1909	141	84.0	.....	.....	.....	.....	100.0	.205	17.0	5.6	74.5	2.8	.....	17.26
	1910	142	84.0	.....	.....	.....	.....	100.0	.219	7.7	12.7	75.4	4.2	.....	18.43
34 plants.....	1910	201	84.0	.....	.....	.....	.....	100.0	.215	9.5	20.4	67.2	3.0	.....	18.09
	1911	182	82.7	.....	.....	11.0	.....	89.0	.217	9.9	17.6	70.3	2.2	.....	17.95
35 plants.....	1911	184	82.7	.....	.....	10.9	.....	89.1	.217	9.8	17.4	70.7	2.2	.....	17.96
	1912	216	79.6	8.3	.....	17.6	.....	74.1	.223	6.5	19.0	63.4	11.1	.....	17.61
36 plants.....	1912	218	79.6	8.3	.....	17.4	.....	74.3	.223	6.4	19.7	62.8	11.0	.....	17.59
	1913	224	81.9	.....	.....	17.9	.....	82.1	.234	3.6	19.7	72.9	5.47	3.0	19.13

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS, IN EACH OF THE PRINCIPAL OCCUPATIONS, 1907 TO 1913—BLAST FURNACES—Concluded.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Aver- age full-time hours per week.	Per cent of employees whose full-time hours per week were—				Aver- age rate of wages per hour.	Per cent of employees whose earnings per hour were—					Aver- age full-time week- ly earn- ings.	
				60 and under.	Over 60 and under 72	72	Over 72 and under 84		84	Un- der 16 cts.	16 and un- der 20 cts.	20 and un- der 25 cts.	25 and un- der 30 cts.		30 cts. and over.
Larry men: 11 plants.....	1907	132	84.0					100.0	\$0.195	18.2	24.2	42.4	15.2		\$16.41
	1908	86	84.0					100.0	.184	25.6	23.3	51.2			15.48
	1909	135	84.0					100.0	.186	26.7	50.4	23.0			15.64
	1910	149	84.0					100.0	.202	5.3	35.6	45.0	14.1		16.97
21 plants.....	1910	231	84.0					100.0	.196	4.3	51.5	35.1	9.1		16.47
	1911	203	82.9			9.4		90.6	.194	5.0	49.3	37.4	8.4		15.99
	1912	237	78.1	15.2		13.9		70.9	.200	4.2	37.1	49.8	8.9		15.48
23 plants.....	1912	241	78.2	14.9		13.7		71.4	.199	5.0	36.5	49.8	8.7		15.46
	1913	234	82.3			14.5		85.5	.215	5.2	9.4	70.1	15.4		17.60
Skip operators: 11 plants.....	1907	86	84.0					100.0	.193	11.6	32.6	53.5	2.3		16.19
	1908	64	84.0					100.0	.184	18.8	34.4	43.8	3.1		15.49
	1909	94	84.0					100.0	.183	8.5	72.4	17.0	2.1		15.40
	1910	97	84.0					100.0	.196	8.2	40.2	49.5	2.1		16.46
19 plants.....	1910	125	84.0					100.0	.197	8.0	39.2	48.0	4.8		16.56
	1911	124	83.8			1.6		98.4	.198	6.5	29.0	56.5	8.1		16.60
	1912	136	79.2	13.2		8.8		77.9	.206	5.9	32.3	39.7	22.1		16.14
20 plants.....	1912	138	79.3	13.0		8.7		78.3	.206	5.8	31.8	40.6	21.7		16.19
	1913	150	82.9			9.3		90.7	.217	5.3	13.3	73.3	8.0		17.95
Stove tenders: 20 plants.....	1907	140	84.0					100.0	.192	14.3	58.5	18.6	8.6		16.10
	1908	96	84.0					100.0	.185	18.7	41.7	39.6			15.52
	1909	140	84.0					100.0	.181	22.1	47.1	30.7			15.22
	1910	146	84.0					100.0	.197	10.9	31.5	57.5			16.55
34 plants.....	1910	200	84.0					100.0	.193	14.0	34.0	52.0			16.21
	1911	178	82.7			11.2		88.8	.190	15.8	34.9	49.4			15.69
35 plants.....	1911	180	82.7			11.1		88.9	.190	15.5	35.5	48.9			15.68
	1912	212	79.5	8.5		17.9		73.6	.195	13.2	28.4	58.5			15.42
36 plants.....	1912	214	79.5	8.4		17.8		73.8	.195	14.0	28.0	57.9			15.38
	1913	213	81.8			18.3		81.7	.211	7.5	15.9	76.5			17.24
										Un- der 20 cts.	20 and un- der 30 cts.	30 and un- der 40 cts.	40 and un- der 50 cts.	50 and un- der 60 cts.	
Blowing engineers: 20 plants.....	1907	100	84.0					100.0	.242	20.0	77.0	3.0			20.30
	1908	85	84.0					100.0	.235	16.5	83.5				19.77
	1909	103	84.0					100.0	.230	21.4	78.7				19.35
	1910	112	84.0					100.0	.245	14.3	78.6	7.1			20.59
34 plants.....	1910	153	84.0					100.0	.243	20.3	74.5	5.2			20.39
	1911	135	83.0			8.1		91.9	.244	19.3	74.8	5.9			20.20
35 plants.....	1911	137	82.9			9.5		90.5	.244	19.0	75.2	5.8			20.15
	1912	142	80.6	4.2		18.3		77.5	.249	22.5	66.2	11.3			19.93
35 plants.....	1912	142	80.6	4.2		18.3		77.5	.249	22.5	66.2	11.3			19.93
	1913	148	81.6			20.3		79.7	.263	17.6	55.4	25.7	1.4		21.37
Blowers: 18 plants.....	1907	78	84.0					100.0	.300	.....	41.0	52.6	6.4		25.17
	1908	68	84.0					100.0	.283	.....	61.7	38.2			23.74
	1909	86	84.0					100.0	.286	.....	61.7	38.4			24.04
	1910	90	84.0					100.0	.307	.....	48.9	48.9	2.2		25.80
32 plants.....	1910	131	83.5	2.3				97.7	.296	.....	8.55	42.0	2.3		24.74
	1911	121	82.9			9.1		90.9	.306	1.7	47.1	41.3	9.9		25.24
33 plants.....	1911	123	82.9			8.9		91.1	.305	1.6	48.0	40.7	9.8		25.21
	1912	132	80.2	6.8		15.9		77.3	.313	1.5	44.7	40.2	13.6		24.84
34 plants.....	1912	139	80.3	6.5		15.8		77.7	.315	1.4	43.8	40.3	14.4		25.01
	1913	147	82.0			17.0		83.0	.329	1.4	31.3	54.4	10.2	2.7	26.84

Owing to changes in the number of plants reported from year to year, and the consequent differences in the averages for the overlapping year in two groups of plants, it is difficult to make a comparison of the actual data over a period of several years which will give an accurate measure of the changes throughout the period. To aid in making such a comparison, relative or index numbers have been computed from the averages of the preceding table for full-time hours per week, rates of wages per hour, and full-time weekly earnings, for each occupation from 1907 to 1913, inclusive. Such figures appear in the table following. These relative or index numbers are simply percentages for which the data for 1913 are taken as the base, or 100 per cent. The relative for each year is the per cent that the average for that year is of the average for 1913. For example, the relative full-time weekly earnings of stockers in 1907 were 89.8 as compared with 100 in 1913; that is, the full-time weekly earnings of stockers in 1907 were 89.8 per cent of the full-time weekly earnings in this occupation in 1913. The method of computing relative numbers is explained on pages 21 to 23.

This table also shows for each occupation the per cent of increase or decrease in full-time hours per week, rates of wages per hour, and full-time weekly earnings in 1913 as compared with each specified year preceding. Thus the full-time weekly earnings of stockers in 1913 were 11.4 per cent higher than in 1907, 23.9 per cent higher than in 1908, 20.8 per cent higher than in 1909, 14.7 per cent higher than in 1910, 13.0 per cent higher than in 1911, and 11.2 per cent higher than in 1912.

In other columns of the table is shown the per cent of change in each year as compared with the year immediately preceding. Thus the full-time weekly earnings of stockers in 1908 were 10.1 per cent lower than in 1907, 2.6 per cent higher in 1909 than in 1908, 5.3 per cent higher in 1910 than in 1909, 1.5 per cent higher in 1911 than in 1910, 1.6 per cent higher in 1912 than in 1911, and 11.2 per cent higher in 1913 than in 1912. The other items and occupations of the table can be studied in like manner. The per cent of increase or decrease is computed from the relative numbers.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—BLAST FURNACES.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Stockers:									
1907.....	101.8	-1.8	.....	87.9	+13.8	.....	89.8	+11.4	.....
1908.....	98.9	+1.1	-2.8	81.2	+23.2	-7.6	80.7	+23.9	-10.1
1909.....	101.1	-1.1	+2.2	81.7	+22.4	+6	82.8	+20.8	+2.6
1910.....	101.3	-1.3	+2	85.8	+16.6	+5.0	87.2	+14.7	+5.3
1911.....	101.1	-1.1	-2	87.4	+14.4	+1.9	88.5	+13.0	+1.5
1912.....	99.9	+1	-1.2	90.0	+11.1	+3.0	89.9	+11.2	+1.6
1913.....	100.0	.....	+1	100.0	.....	+11.1	100.0	.....	+11.2
Bottom fillers:									
1907.....	102.7	-2.6	.....	92.2	+8.5	.....	93.9	+6.5	.....
1908.....	102.7	-2.6	(1)	86.5	+15.6	-6.2	88.2	+13.4	-6.1
1909.....	102.7	-2.6	(1)	79.6	+25.6	-8.0	81.4	+22.9	-7.7
1910.....	102.7	-2.6	(1)	92.2	+8.5	+15.8	94.0	+6.4	+15.5
1911.....	102.7	-2.6	(1)	89.8	+11.4	-2.6	91.7	+9.1	-2.4
1912.....	100.5	-5	-2.1	91.6	+9.2	+2.0	91.9	+8.8	+2
1913.....	100.0	.....	-5	100.0	.....	+9.2	100.0	.....	+8.8
Top fillers:									
1907.....	103.4	-3.3	.....	86.5	+15.6	.....	89.8	+11.4	.....
1908.....	103.4	-3.3	(1)	82.1	+21.8	-5.1	85.5	+17.0	-4.8
1909.....	103.4	-3.3	(1)	78.7	+27.1	-4.1	81.9	+22.1	-4.2
1910.....	103.4	-3.3	(1)	88.5	+13.0	+12.5	91.7	+9.1	+12.0
1911.....	102.4	-2.3	-1.0	89.0	+12.4	+6	90.5	+10.5	-1.3
1912.....	99.6	+4	-2.7	91.6	+9.2	+2.9	90.9	+10.0	+4
1913.....	100.0	.....	+4	100.0	.....	+9.2	100.0	.....	+10.0
Larry men:									
1907.....	102.2	-2.2	.....	87.6	+14.2	.....	90.4	+10.6	.....
1908.....	102.2	-2.2	(1)	82.6	+21.1	-5.7	85.3	+17.2	-5.6
1909.....	102.2	-2.2	(1)	83.5	+19.8	+1.1	86.1	+16.1	+9
1910.....	102.2	-2.2	(1)	90.7	+10.3	+8.6	93.5	+7.0	+8.6
1911.....	100.9	-9	-1.3	89.8	+11.4	-1.0	90.7	+10.3	-3.0
1912.....	95.0	+5.3	-5.8	92.6	+8.0	+3.1	87.8	+13.9	-3.2
1913.....	100.0	.....	+5.3	100.0	.....	+8.0	100.0	.....	+13.9
Larry men's helpers:									
1907.....	101.7	-1.7	.....	84.2	+18.8	.....	86.1	+16.1	.....
1908.....	101.7	-1.7	(1)	80.5	+24.2	-4.4	82.5	+21.2	-4.2
1909.....	101.7	-1.7	(1)	78.9	+26.7	-2.0	80.8	+23.8	-2.1
1910.....	101.7	-1.7	(1)	86.3	+15.9	+9.4	88.3	+13.3	+9.3
1911.....	100.0	(1)	-1.7	87.9	+13.8	+1.9	88.3	+13.3	(1)
1912.....	96.4	+3.7	-3.6	90.5	+10.5	+3.0	86.9	+15.1	-1.6
1913.....	100.0	.....	+3.7	100.0	.....	+10.5	100.0	.....	+15.1
Skip operators:									
1907.....	101.5	-1.5	.....	89.4	+11.9	.....	91.0	+9.9	.....
1908.....	101.5	-1.5	(1)	85.2	+17.4	-4.7	87.1	+14.8	-4.3
1909.....	101.5	-1.5	(1)	84.8	+17.9	-5	86.6	+15.5	-6
1910.....	101.5	-1.5	(1)	90.8	+10.1	+7.1	92.5	+8.1	+6.8
1911.....	101.2	-1.2	-3	91.2	+9.6	+4	92.8	+7.8	+3
1912.....	95.7	+4.5	-5.4	94.9	+5.4	+4.1	90.2	+10.9	-2.8
1913.....	100.0	.....	+4.5	100.0	.....	+5.4	100.0	.....	+10.9
Blowers:									
1907.....	102.0	-2.0	.....	88.2	+13.4	.....	90.4	+10.6	.....
1908.....	102.0	-2.0	(1)	83.2	+20.2	-5.7	85.3	+17.2	-5.6
1909.....	102.0	-2.0	(1)	84.1	+18.9	+1.1	86.4	+15.7	+1.3
1910.....	102.0	-2.0	(1)	90.2	+10.9	+7.3	92.7	+7.9	+7.3
1911.....	101.2	-1.2	-8	93.3	+7.2	+3.4	94.6	+5.7	+2.0
1912.....	97.9	+2.1	-3.3	95.7	+4.5	+2.6	93.2	+7.3	-1.5
1913.....	100.0	.....	+2.1	100.0	.....	+4.5	100.0	.....	+7.3

1 No change.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—BLAST FURNACES—Continued.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Blowing engineers:									
1907.....	102.8	-2.7	.....	91.3	+ 9.5	.....	93.8	+ 6.6	.....
1908.....	102.8	-2.7	(1)	88.6	+12.9	- 3.0	91.4	+ 9.4	- 2.6
1909.....	102.8	-2.7	(1)	86.7	+15.3	- 2.1	89.4	+11.9	- 2.2
1910.....	102.8	-2.7	(1)	92.4	+ 8.2	+ 6.6	95.2	+ 5.0	+ 6.5
1911.....	101.6	-1.6	-1.2	92.8	+ 7.8	+ .4	94.3	+ 6.0	- .9
1912.....	98.8	+1.2	-2.8	94.7	+ 5.6	+ 2.0	93.3	+ 7.2	-1.1
1913.....	100.0	.....	+1.2	100.0	.....	+ 5.6	100.0	.....	+ 7.2
Blowing engineers' assistants:									
1907.....	101.5	-1.5	.....	90.6	+10.4	.....	92.1	+ 8.6	.....
1908.....	101.5	-1.5	(1)	88.9	+12.5	- 1.9	90.5	+10.5	- 1.7
1909.....	101.5	-1.5	(1)	85.3	+17.2	- 4.0	87.1	+14.8	- 3.8
1910.....	101.5	-1.5	(1)	92.9	+ 7.6	+ 8.9	94.6	+ 5.7	+ 8.6
1911.....	100.5	- .5	-1.0	92.0	+ 8.7	- 1.0	92.9	+ 7.6	-1.8
1912.....	97.1	+3.0	-3.4	94.7	+ 5.6	+ 2.9	91.8	+ 8.9	- 1.2
1913.....	100.0	.....	+3.0	100.0	.....	+ 5.6	100.0	.....	+ 8.9
Stove tenders:									
1907.....	102.7	-2.6	.....	89.1	+12.2	.....	91.2	+ 9.6	.....
1908.....	102.7	-2.6	(1)	85.9	+16.4	- 3.6	87.9	+13.8	- 3.6
1909.....	102.7	-2.6	(1)	84.0	+19.0	- 2.2	86.2	+16.0	- 1.9
1910.....	102.7	-2.6	(1)	91.5	+ 9.3	+ 8.9	93.7	+ 6.7	+ 8.7
1911.....	101.1	-1.1	-1.6	90.0	+11.1	- 1.6	90.7	+10.3	- 3.2
1912.....	97.2	+2.9	-3.9	92.4	+ 8.2	+ 2.7	89.2	+12.1	- 1.7
1913.....	100.0	.....	+2.9	100.0	.....	+ 8.2	100.0	.....	+12.1
Keepers:									
1907.....	102.6	-2.5	.....	91.5	+ 9.3	.....	94.0	+ 6.4	.....
1908.....	102.6	-2.5	(1)	88.1	+13.5	- 3.7	90.6	+10.4	- 3.6
1909.....	102.6	-2.5	(1)	86.0	+16.3	- 2.4	88.5	+13.0	- 2.3
1910.....	102.6	-2.5	(1)	91.9	+ 8.8	+ 6.9	94.5	+ 5.8	+ 6.8
1911.....	101.0	-1.0	-1.6	92.7	+ 7.9	+ .9	93.7	+ 6.7	- .8
1912.....	97.2	+2.9	-3.8	95.3	+ 4.9	+ 2.8	91.9	+ 8.8	- 1.9
1913.....	100.0	.....	+2.9	100.0	.....	+ 4.9	100.0	.....	+ 8.8
Keepers' helpers:									
1907.....	101.2	-1.2	.....	89.7	+11.5	.....	90.3	+10.7	.....
1908.....	101.2	-1.2	(1)	87.0	+14.9	- 3.0	87.2	+14.7	- 3.4
1909.....	101.2	-1.2	(1)	84.3	+18.6	- 3.1	84.8	+17.9	- 2.8
1910.....	101.2	-1.2	(1)	91.9	+ 8.8	+ 9.0	92.5	+ 8.1	+ 9.1
1911.....	100.1	- .1	-1.1	91.4	+ 9.4	- .5	90.5	+10.5	- 2.2
1912.....	97.6	+2.5	-2.5	93.0	+ 7.5	+ 1.8	89.9	+11.2	- .7
1913.....	100.0	.....	+2.5	100.0	.....	+ 7.5	100.0	.....	+11.2
Iron handlers and loaders:									
1907.....	104.3	-4.1	.....	92.2	+ 8.5	.....	96.3	+ 3.8	.....
1908.....	104.0	-3.8	- .3	90.8	+10.1	- 1.5	94.6	+ 5.7	- 1.8
1909.....	104.9	-4.7	+ .9	84.6	+18.2	- 6.8	88.5	+13.0	- 6.4
1910.....	104.0	-3.8	- .9	93.2	+ 7.3	+10.2	96.6	+ 3.5	+ 9.2
1911.....	101.9	-1.9	-2.0	93.6	+ 6.8	+ .4	94.9	+ 5.4	- 1.8
1912.....	100.8	- .8	-1.1	93.6	+ 6.8	(1)	94.0	+ 6.4	- .9
1913.....	100.0	.....	- .8	100.0	.....	+ 6.8	100.0	.....	+ 6.4
Pig-machine men:									
1907.....	102.8	-2.7	.....	86.5	+15.6	.....	89.1	+12.2	.....
1908.....	102.7	-2.6	- .1	84.4	+18.5	- 2.4	87.0	+14.9	- 2.4
1909.....	102.7	-2.6	(1)	83.9	+19.2	- .6	86.2	+16.0	- .9
1910.....	102.6	-2.5	- .1	88.0	+13.6	+ 4.9	90.6	+10.4	+ 5.1
1911.....	100.7	- .7	-1.9	88.0	+13.6	(1)	89.1	+12.2	- 1.7
1912.....	100.1	- .1	- .6	89.1	+12.2	+ 1.3	89.0	+12.4	- .1
1913.....	100.0	.....	- .1	100.0	.....	+12.2	100.0	.....	+12.4

¹ No change.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—BLAST FURNACES—Concluded.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Cinder men:									
1907.....	107.6	-7.1	-----	93.7	+ 6.7	-----	101.9	- 1.9	-----
1908.....	106.3	-5.9	-1.2	84.5	+18.3	- 9.8	90.8	+10.1	-10.9
1909.....	105.7	-5.4	- .6	81.3	+23.0	- 3.8	87.0	+14.9	- 4.2
1910.....	106.7	-6.3	+ .9	89.9	+11.2	+10.6	97.1	+ 3.0	+11.6
1911.....	104.6	-4.4	-2.0	87.2	+14.7	- 3.0	92.0	+ 8.7	- 5.3
1912.....	96.7	+3.4	-7.6	90.5	+10.5	+ 3.8	87.5	+14.3	- 4.9
1913.....	100.0	-----	+3.4	100.0	-----	+10.5	100.0	-----	+14.3
Laborers:									
1907.....	106.1	-5.7	-----	84.3	+18.6	-----	90.0	+11.1	-----
1908.....	101.9	-1.9	-4.0	80.8	+23.8	- 4.2	82.8	+20.8	- 8.0
1909.....	102.2	-2.2	+ .3	79.6	+25.6	- 1.5	82.3	+21.5	- .6
1910.....	103.0	-2.9	+ .8	87.7	+14.0	+10.2	90.4	+10.6	+ 9.8
1911.....	101.1	-1.1	-1.8	88.3	+13.3	+ .7	89.6	+11.6	- .9
1912.....	100.8	- .8	- .3	88.9	+12.5	+ .7	89.7	+11.5	+ .1
1913.....	100.0	-----	- .8	100.0	-----	+12.5	100.0	-----	+11.5

A similar table of relative numbers and percentages is next shown for the blast-furnace department as a whole, as determined by a combination of the data for the several principal productive occupations which are covered in this section of the report. The method of computing the figures of this table is explained on page 23.

From the table following, under "weekly earnings," it is seen that the relative full-time weekly earnings of the department as a whole in 1907 were 89.8 as compared with 100 in 1913. In other words, the full-time weekly earnings in 1907 were 89.8 per cent of such earnings in 1913. The relative dropped to 84.6 in 1908 and to 83.9 in 1909, advanced to 90.5 in 1910, to 91.3 in 1911, dropped to 90.8 in 1912, and, showing the marked increase in rates, in 1913, the base year, advanced to 100.

The next column shows that full-time weekly earnings in 1913 were 11.4 per cent higher than in 1907, 18.2 per cent higher than in 1908, 19.2 per cent higher than in 1909, 10.5 per cent higher than in 1910, 9.5 per cent higher than in 1911, and 10.1 per cent higher than in 1912.

The third column under "weekly earnings" shows the per cent of increase or decrease in full-time weekly earnings each year as compared with the year immediately preceding. Thus, the full-time weekly earnings in 1908 were 5.8 per cent lower than in 1907, in 1909 0.8 per cent lower than in 1908, in 1910 7.9 per cent higher than in 1909, in 1911 0.9 per cent higher than in 1910, in 1912 0.5 per cent lower than in 1911, and in 1913 10.1 per cent higher than in 1912. The relative numbers and percentages for full-time hours per week and rates of wages per hour can be read in like manner.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, ALL OCCUPATIONS—BLAST FURNACES.

Year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
1907.....	103.0	-2.9	.....	87.1	+14.8	.....	89.8	+11.4	.....
1908.....	101.5	-1.5	-1.5	83.1	+20.3	-4.6	84.6	+18.2	-5.8
1909.....	102.4	-2.3	+ .9	82.1	+21.8	-1.2	83.9	+19.2	- .8
1910.....	102.5	-2.4	+ .1	88.6	+12.9	+7.9	90.5	+10.5	+7.9
1911.....	101.5	-1.5	-1.0	90.2	+10.9	+1.8	91.3	+9.5	+ .9
1912.....	99.0	+1.0	-2.5	92.3	+8.3	+2.3	90.8	+10.1	- .5
1913.....	100.0	.....	+1.0	100.0	.....	+8.3	100.0	.....	+10.1

In considering weekly earnings attention should be given to the hours per week and wages per hour and their effect on the weekly earnings. A reduction of hours tends to reduce weekly earnings and an increase in wages per hour, of course, tends to increase weekly earnings. Between 1907 and 1913 it will be observed that the hours were reduced 2.9 per cent and wages per hour were increased 14.8 per cent, each tending to offset the other in weekly earnings. Still another influence on average weekly earnings for the department must be considered. That is, the change in the relative number of employees in the several occupations from year to year. It is obvious that an increase in the relative number of employees in the lower-paid occupations, or a decrease in the relative number of those in the higher-paid ones would lower the average rate and earnings for all occupations, just as an increase in the relative number of employees in the higher-paid occupations or a decrease in the relative number in the lower-paid ones would increase the average.

FULL-TIME WORKING DAYS PER WEEK.

The number and per cent of employees in the principal productive occupations in blast-furnace plants whose customary working time per week was six days or turns, or seven, are shown in the following table. The figures are presented for each district and for the four districts combined.

A blast furnace is continuously in operation, but a marked difference is seen in the working days per week of employees in the few years between 1907 and 1913; seven days was the regular working time of 97.2 per cent of the employees in 1907, while in 1913 the number working seven days per week had been reduced to 79.8 per cent. This reduction was due to the fact that during recent years several establishments have carried into effect a provision to lay off employees one day in seven, thus making the working time for each individual six days, while the plant continues in operation seven days.

NUMBER AND PER CENT OF EMPLOYEES IN EACH DISTRICT WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1910 TO 1913—BLAST FURNACES.

[The figures for each group of years are for identical plants.]

District, and number of plants.	Year.	Number of employees.	Number of employees whose customary working time per week was—			Per cent of employees whose customary working time per week was—		
			6 days.	6 days and 7 days alternately.	7 days.	6 days.	6 days and 7 days alternately.	7 days.
Eastern:								
2 plants.....	1907	320	33	.....	287	10.3	.....	89.7
	1908	235	43	.....	192	18.3	.....	81.7
	1909	328	11	.....	317	3.4	.....	96.6
	1910	346	.....	.....	346	.....	.....	100.0
6 plants.....	1910	1,436	79	.....	1,357	5.5	.....	94.5
	1911	779	118	2	659	15.1	0.3	84.6
	1912	684	135	2	547	19.7	.3	80.0
6 plants.....	1912	660	134	2	524	20.3	.3	79.4
	1913	743	178	2	563	24.0	.3	75.8
Pittsburgh:								
6 plants.....	1907	1,731	74	.....	1,657	4.3	.....	95.7
	1908	1,161	87	.....	1,074	7.5	.....	92.5
	1909	1,683	66	.....	1,617	3.9	.....	96.1
	1910	1,613	103	.....	1,510	6.4	.....	93.6
9 plants.....	1910	2,302	111	.....	2,191	4.8	.....	95.2
	1911	2,135	127	.....	2,008	5.9	.....	94.1
9 plants.....	1911	2,127	127	.....	2,000	6.0	.....	94.0
	1912	2,396	101	.....	2,295	4.2	.....	95.8
9 plants.....	1912	2,415	101	.....	2,314	4.2	.....	95.8
	1913	2,469	58	.....	2,411	2.3	.....	97.7
Great Lakes and Middle West:								
6 plants.....	1907	1,310	14	.....	1,296	1.1	.....	98.9
	1908	947	27	.....	920	2.9	.....	97.1
	1909	1,163	44	.....	1,119	3.8	.....	96.2
	1910	1,622	95	.....	1,527	5.9	.....	94.1
9 plants.....	1910	2,103	116	.....	1,987	5.5	.....	94.5
	1911	1,302	337	.....	965	25.9	.....	74.1

NUMBER AND PER CENT OF EMPLOYEES IN EACH DISTRICT WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1910 TO 1913—BLAST FURNACES—Concluded.

District, and number of plants.	Year.	Number of employees.	Number of employees whose customary working time per week was—			Per cent of employees whose customary working time per week was—		
			6 days.	6 days and 7 days alternately.	7 days.	6 days.	6 days and 7 days alternately.	7 days.
Great Lakes and Middle West—Concluded.								
10 plants.....	1911	1,387	343	.....	1,044	24.7	.....	75.3
	1912	1,648	568	.....	1,080	34.5	.....	65.5
10 plants.....	1912	1,722	607	.....	1,115	35.2	.....	64.8
	1913	1,932	665	.....	1,267	34.4	.....	65.6
Southern:								
6 plants.....	1907	917	.....	.....	917	.....	.....	100.0
	1908	685	.....	.....	685	.....	.....	100.0
	1909	930	8	.....	922	.9	.....	99.1
	1910	800	3	.....	797	.4	.....	99.6
10 plants.....	1910	1,209	37	.....	1,172	3.1	.....	96.9
	1911	1,052	2	.....	1,050	.2	.....	99.8
10 plants.....	1911	1,043	2	.....	1,041	.2	.....	99.8
	1912	1,245	267	.....	978	21.4	.....	78.6
11 plants.....	1912	1,304	265	.....	1,039	20.3	.....	79.7
	1913	1,445	431	.....	1,014	29.8	.....	70.2
Total:								
20 plants.....	1907	4,278	121	.....	4,157	2.8	.....	97.2
	1908	3,028	157	.....	2,871	5.2	.....	94.8
	1909	4,104	129	.....	3,975	3.1	.....	96.9
	1910	4,381	201	.....	4,180	4.6	.....	95.4
34 plants.....	1910	7,050	343	.....	6,707	4.9	.....	95.1
	1911	5,268	584	2	4,682	11.1	(¹)	88.9
35 plants.....	1911	5,336	590	2	4,744	11.1	(¹)	88.9
	1912	5,973	1,071	2	4,900	17.9	(¹)	82.0
36 plants.....	1912	6,101	1,107	2	4,992	18.1	(¹)	81.8
	1913	6,589	1,332	2	5,255	20.2	(¹)	79.8

¹ Less than one-tenth of 1 per cent.

In addition to the text tables in the summary, four general tables are presented for the blast-furnace department, as follows:

Table I.—Average full-time weekly earnings and average and classified rates of wages per hour in the United States, by years, 1907 to 1913.

Table II.—Average full-time weekly earnings and average and classified rates of wages per hour in each year, by districts, 1912 and 1913.

Table III.—Average and classified full-time hours per week in the United States, by years, 1907 to 1913.

Table IV.—Average and classified full-time hours per week in each year, by districts, 1912 and 1913.

In Tables I and III, in addition to actual data percentages computed therefrom are given. The data from these two tables are summarized in the text table on pages 26 to 29.

The order in which the occupations are given in Tables I to IV, inclusive, and in the table of relative numbers follows that of the processes of manufacture.

“Identical plants,” as used in the tables of this report, are identical units of identical establishments reporting the same occupations in each of two or more consecutive years. For a more extended explanation see page 17.

Figures for each geographical division for each preceding year, back to 1907, corresponding to those given for 1912 and 1913 in Tables II and IV, and descriptions of the occupations which appear in the tables of this report, were given in Bulletin No. 151 of this Bureau but have been omitted from the present report.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BLAST FURNACES.

(The figures for each group of years are for identical plants.)

NUMBER.																
Occupation, and number of plants.	Year.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.										
						8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.
Stockers:																
18 plants....	1907	824	81.4	\$0.170	\$13.83			27	84	127	439	10	113	24		
	1908	473	79.1	.157	12.43	3	20	31	37	122	191	29	40			
	1909	737	80.9	.158	12.75		3	62	122	133	286	48	67			
	1910	904	81.0	.166	13.43			35	164	81	397	165	62			
32 plants....	1910	1,445	79.9	.164	13.17			44	230	294	551	221	105			
	1911	898	79.8	.167	13.36			55	85	159	380	152	27	40		
32 plants....	1911	904	79.7	.168	13.40			46	85	159	395	152	27	40		
	1912	1,045	78.7	.173	13.61			49	53	155	487	217	37	20	27	
34 plants....	1912	1,069	78.8	.171	13.46			83	53	162	470	217	37	20	27	
	1913	1,187	78.9	.190	14.98			53	61	77	383	446	62			
Bottom fillers:																
7 plants.....	1907	293	84.0	.160	13.40			36	68	32	89	68				
	1908	194	84.0	.150	12.59			18	60	34	42	40				
	1909	282	84.0	.138	11.61			60	134		48	40				
	1910	267	84.0	.160	13.41				87	50	80	50				
14 plants....	1910	672	84.0	.152	12.77				176	320	96	80				
	1911	391	84.0	.148	12.46				137	156	34	64				
15 plants....	1911	417	84.0	.149	12.50				137	174	42	64				
	1912	468	82.2	.152	12.53				129	209	54	76				
14 plants....	1912	423	82.0	.153	12.63				129	142	76	76				
	1913	461	81.6	.167	13.74				95	190		98	78			
Top fillers:																
8 plants.....	1907	66	84.0	.177	14.86			4	12	8	6	10	26			
	1908	44	84.0	.168	14.15			4	14		6	8	12			
	1909	50	84.0	.161	13.56			6	16	10		6	12			
	1910	48	84.0	.181	15.18				4	16	4		24			
13 plants....	1910	142	82.8	.169	13.85				4	37	77		18		6	
	1911	84	82.0	.170	13.67			2	14	20	28	2	12			6
14 plants....	1911	92	82.2	.171	13.84			2	14	20	28	10	12			6
	1912	96	80.0	.176	13.90			2	10	30	14	16	18			6
14 plants....	1912	96	80.0	.175	13.81			4	12	26	14	16	18			6
	1913	98	80.3	.191	15.19			2	6	18	14	22	30			6
Larry men:																
11 plants....	1907	132	84.0	.195	16.41				20	4	16	16	56	20		
	1908	86	84.0	.184	15.48			6	16		8	12	44			
	1909	135	84.0	.186	15.64			6	4	26		68	31			
	1910	149	84.0	.202	16.97			2	2	4	24	29	67	21		
21 plants....	1910	231	84.0	.196	16.47			2	4	4	70	49	81	21		
	1911	203	82.9	.194	15.99			2	2	6	70	30	76	17		
	1912	237	78.1	.200	15.48				4	6	46	42	118	21		
23 plants....	1912	241	78.2	.199	15.46				6	6	46	42	120	21		
	1913	234	82.3	.215	17.60				6	6	4	18	164	36		
Larry men's helpers:																
10 plants....	1907	115	84.0	.159	13.35			8	2	34	71					
	1908	79	84.0	.152	12.80			10		36	33					
	1909	135	84.0	.149	12.53			10	38	41	46					
	1910	134	84.0	.163	13.69			8		39	67	20				
19 plants....	1910	278	84.0	.165	13.88			12	2	66	178	20				
	1911	294	82.6	.168	13.89			2	12	46	214	20				
	1912	343	79.6	.173	13.67				14	18	255	20	36			

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BLAST FURNACES—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.													
						8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.			
Larry men's helpers—Con.																			
23 plants....	1912	359	79.6	\$0.172	\$13.64				16	20	263	24	36						
	1913	342	82.6	.190	15.69				16	4	28	143	151						
Skip operators:																			
11 plants....	1907	86	84.0	.193	16.19					10	24	4	46						
	1908	64	84.0	.184	15.49				6	6	16	6	28	2					
	1909	94	84.0	.183	15.40					8	28	40	16	2					
	1910	97	84.0	.196	16.46					8	31	8	48	2					
19 plants....	1910	125	84.0	.197	16.56					10	35	14	60	6					
	1911	124	83.8	.198	16.60					8	34	2	70	10					
	1912	136	79.2	.206	16.14					8	38	6	54	30					
20 plants....	1912	138	79.3	.206	16.19					8	38	6	56	30					
	1913	150	82.9	.217	17.95					8	6	14	110	12					
Blowers:																			
18 plants....	1907	78	84.0	.300	25.17								10	22	41	5			
	1908	68	84.0	.283	23.74								12	30	26				
	1909	86	84.0	.286	24.04								20	33	33				
	1910	90	84.0	.307	25.80								11	33	44	2			
32 plants....	1910	131	83.5	.296	24.74					1			27	45	55	3			
	1911	121	82.9	.306	25.24						2		24	33	50	12			
33 plants....	1911	123	82.9	.305	25.21								24	35	50	12			
	1912	132	80.2	.313	24.84						2		21	38	53	18			
34 plants....	1912	139	80.3	.315	25.01						2		23	38	56	20			
	1913	147	82.0	.329	26.84							2	22	24	80	19			
Blowing engineers:																			
20 plants....	1907	100	84.0	.242	20.30					2	6	12	12	65	3				
	1908	85	84.0	.235	19.77					4	4	6	30	41					
	1909	103	84.0	.230	19.35					4	6	12	42	39					
	1910	112	84.0	.245	20.59					2	6	8	42	46	8				
34 plants....	1910	153	84.0	.243	20.39					2	14	15	45	69	8				
	1911	135	83.0	.244	20.20					2	10	14	40	61	8				
35 plants....	1911	137	82.9	.244	20.15					2	10	14	42	61	8				
	1912	142	80.6	.249	19.93					2	10	20	31	63	16				
35 plants....	1912	142	80.6	.249	19.93					2	10	20	31	63	16				
	1913	148	81.6	.263	21.37					2		24	31	51	38	2			
Blowing engineers' assistants:																			
11 plants....	1907	67	84.0	.203	17.02				4	2	2	16	33	10					
	1908	51	84.0	.199	16.72			2	4	2		12	23	8					
	1909	74	84.0	.191	16.08			6	2	4	4	26	22	10					
	1910	66	84.0	.208	17.48				2	4	2	12	36	10					
18 plants....	1910	94	84.0	.207	17.38				2	6	3	17	56	10					
	1911	91	83.2	.205	17.06				2	6	2	19	58	4					
	1912	108	80.4	.211	16.85				4	4	4	16	72	8					
18 plants....	1912	106	80.8	.213	17.13					4	4	16	74	8					
	1913	94	83.2	.225	18.67					4	4	2	62	18	4				
Stove tenders:																			
20 plants....	1907	140	84.0	.192	16.10				4	16	9	73	26	12					
	1908	96	84.0	.185	15.52			2	8	8	4	36	38						
	1909	140	84.0	.181	15.22			2	12	17	14	52	43						
	1910	146	84.0	.197	16.55				4	12	18	28	84						
34 plants....	1910	200	84.0	.193	16.21				6	22	32	36	104						
	1911	178	82.7	.190	15.69				6	22	22	40	88						

¹ Including 4 employees earning 50 and under 60 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BLAST FURNACES—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.													
						8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.			
Stove tenders—																			
Concluded.																			
35 plants....	1911	180	82.7	\$0.190	\$15.68				6	22	24	40	88						
	1912	212	79.5	.195	15.42				6	22	30	30	124						
36 plants....	1912	214	79.5	.195	15.38				8	22	30	30	124						
	1913	213	81.8	.211	17.24				6	10	29	5	163						
Keepers:																			
20 plants....	1907	146	84.0	.218	18.34					18	8	2	94	24					
	1908	96	84.0	.210	17.68				6	8			72	4					
	1909	141	84.0	.205	17.26				10	14	4	4	105	4					
	1910	142	84.0	.219	18.43					11	2	16	107	6					
34 plants....	1910	201	84.0	.215	18.09					19	4	37	135	6					
	1911	182	82.7	.217	17.95					18	4	28	128	4					
35 plants....	1911	184	82.7	.217	17.95					18	4	28	130	4					
	1912	216	79.6	.223	17.61					14	12	29	137	24					
36 plants....	1912	218	79.6	.223	17.59					14	12	31	137	24					
	1913	224	81.9	.234	19.13					8	12	32	66	106					
Keepers' help-ers:																			
20 plants....	1907	616	84.0	.165	13.89			48	94	46	216	116	96						
	1908	409	84.0	.160	13.41			48	68	16	161	88	28						
	1909	596	84.0	.155	13.04			90	101	54	211	120	20						
	1910	608	84.0	.169	14.22			38	57	83	188	192	50						
34 plants....	1910	877	84.0	.168	14.13			38	105	149	269	244	72						
	1911	734	83.1	.167	13.83			60	92	96	196	234	56						
35 plants....	1911	742	83.1	.167	13.84			60	92	96	198	240	56						
	1912	846	81.0	.170	13.74			62	76	138	192	279	99						
36 plants....	1912	870	80.2	.173	13.75			40	86	140	196	279	129						
	1913	902	82.2	.186	15.30			40	36	124	110	78	514						
Iron handlers and loaders:																			
9 plants....	1907	203	73.2	.193	14.20				10	26	86	18	51					12	
	1908	163	73.0	.190	13.95			3	23	27	45	6	40	5	14				
	1909	242	73.6	.177	13.05				28	47	86	13	50	18					
	1910	177	73.0	.195	14.24				17	19	68	12	33	28					
18 plants....	1910	305	74.2	.194	14.36				24	32	129	22	54	36	8				
	1911	300	72.7	.195	14.11				21	33	98	30	75	22	21				
19 plants....	1911	308	73.0	.195	14.17				21	33	98	38	75	22	21				
	1912	359	72.2	.195	14.04				11	59	115	60	68	18	28				
19 plants....	1912	406	73.1	.206	15.11				11	55	119	60	80	21	60				
	1913	446	72.5	.220	16.07				1	22	128	36	176	4	79				
Pig-machine men:																			
9 plants....	1907	193	84.0	.167	14.03				25	30	110	6	20	2					
	1908	157	83.9	.163	13.69				18	13	108	12	6						
	1909	152	83.9	.162	13.57				23	11	98	14	6						
	1910	182	83.8	.170	14.27				13	27	92	44	6						
16 plants....	1910	291	83.9	.169	14.14				17	44	166	58	6						
	1911	259	82.4	.169	13.90				29	34	138	46	12						
17 plants....	1911	267	82.4	.169	13.98				29	34	138	52	14						
	1912	275	81.9	.171	13.97				18	23	174	50	10						
	1913	290	81.8	.192	15.69				8	10	35	112	125						

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BLAST FURNACES—Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Num- ber of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.														
						8	9	10	12	14	16	18	20	25	30	40	50			
						and under 9 cts.	and under 10 cts.	and under 12 cts.	and under 14 cts.	and under 16 cts.	and under 18 cts.	and under 20 cts.	and under 25 cts.	and under 30 cts.	and under 40 cts.	and under 50 cts.				
Cinder men: 20 plants....	1907	262	83.6	\$0.173	\$14.46				2	12	64	118	24	42						
	1908	245	82.6	.156	12.88	2	2		17	34	82	84		24						
	1909	380	82.2	.150	12.34	2			24	105	75	153		21						
	1910	357	82.9	.166	13.78	2			9	31	41	224	42			8				
32 plants....	1910	482	82.9	.163	13.56	2			11	43	96	280	42			8				
	1911	339	81.3	.158	12.84	2			6	69	72	155	33	1		1				
32 plants....	1911	333	81.3	.158	12.82	2			6	69	74	147	33	1		1				
	1912	397	75.2	.164	12.20	2			6	35	113	148	62	31						
33 plants....	1912	356	77.3	.162	12.49	2			14	28	81	158	66	7						
	1913	380	79.9	.179	14.27				14	21	46	48	135	116						
Laborers: 20 plants....	1907	957	75.8	.146	11.13				35	274	381	267								
	1908	718	72.8	.140	10.24		4		173	74	295	172								
	1909	757	73.0	.138	10.17		4		175	196	185	197								
	1910	902	73.6	.152	11.18				38	197	190	477								
34 plants....	1910	1,423	74.7	.150	11.23				44	332	466	581								
	1911	935	73.3	.151	11.13				38	240	224	433								
35 plants....	1911	937	73.3	.151	11.14				38	240	226	433								
	1912	961	73.1	.152	11.15				31	237	227	465	1							
35 plants....	1912	1,049	73.1	.152	11.15				35	241	276	496	1							
	1913	1,273	72.5	.171	12.43				10	179	217	250	465	152						

PER CENT.

Stockers: 18 plants.....	1907	824	81.4	\$0.170	\$13.83				3.3	10.2	15.4	53.3	1.2	13.7	2.9				
	1908	473	79.1	.157	12.43		0.6	4.2	6.6	7.8	25.8	40.4	6.1	8.5					
	1909	737	80.9	.158	12.75		.4	2.2	8.4	16.6	18.1	38.8	6.5	9.1					
	1910	904	81.0	.166	13.43				3.9	18.1	9.0	43.9	18.3	6.9					
32 plants.....	1910	1,445	79.9	.164	13.17				3.0	15.9	20.3	38.1	15.3	7.3					
	1911	898	79.8	.167	13.36				6.1	9.5	17.7	42.3	16.9	3.0	4.5				
32 plants.....	1911	904	79.7	.168	13.40				5.1	9.4	17.6	43.7	16.8	3.0	4.4				
	1912	1,045	78.7	.173	13.61				4.7	5.1	14.8	46.6	20.8	3.5	1.9	2.6			
34 plants.....	1912	1,069	78.8	.171	13.46				7.8	5.0	15.2	44.0	20.3	3.5	1.9	2.5			
	1913	1,187	78.9	.190	14.98				4.5	5.1	6.5	8.2	32.3	37.6	5.2	.7			
Bottom fillers: 7 plants.....	1907	293	84.0	.160	13.40				12.3	23.2	10.9	30.4	23.2						
	1908	194	84.0	.150	12.59				9.3	30.9	17.5	21.6	20.6						
	1909	282	84.0	.138	11.61				21.3	47.5		17.0	14.2						
	1910	267	84.0	.160	13.41					32.6	18.7	30.0	18.7						
14 plants.....	1910	672	84.0	.152	12.77					26.2	47.6	14.3	11.9						
	1911	391	84.0	.148	12.46					35.0	39.9	8.7	16.4						
15 plants.....	1911	417	84.0	.149	12.50					32.9	41.7	10.1	15.3						
	1912	468	82.2	.152	12.53					27.6	44.7	11.5	16.2						
14 plants.....	1912	423	82.0	.153	12.63					30.5	33.6	18.0	18.0						
	1913	461	81.6	.167	13.74					20.6	41.2		21.3	16.9					
Top fillers: 8 plants.....	1907	66	84.0	.177	14.86				6.1	18.2	12.1	9.1	15.2	39.4					
	1908	44	84.0	.168	14.15				9.1	31.8		13.6	18.2	27.3					
	1909	50	84.0	.161	13.56				12.0	32.0	20.0		12.0	24.0					
	1910	48	84.0	.181	15.18					8.3	33.3	8.3		50.0					

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BLAST FURNACES—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.													
						8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.			
Top fillers—Con. 13 plants....	1910	142	82.8	\$0.169	\$13.85				2.8	26.1	54.2		12.7			4.2			
	1911	84	82.0	.170	13.67				2.4	16.7	23.8	33.3	2.4	14.3		7.1			
14 plants....	1911	92	82.2	.171	13.84				2.2	15.2	21.7	30.4	10.9	13.0		6.5			
	1912	96	80.0	.176	13.90				2.1	10.4	31.3	14.6	16.7	18.8		6.3			
14 plants....	1912	96	80.0	.175	13.81				4.2	12.5	27.1	14.6	16.7	18.8		6.3			
	1913	98	80.3	.191	15.19				2.0	6.1	18.4	14.3	22.4	30.6		6.1			
Larry men: 11 plants....	1907	132	84.0	.195	16.41				15.2	3.0	12.1	12.1	42.4	15.2					
	1908	86	84.0	.184	15.48				7.0	18.6		9.3	14.0	51.2					
	1909	135	84.0	.186	15.64				4.4	3.0	19.3		50.4	23.0					
	1910	149	84.0	.202	16.97				1.3	1.3	2.7	16.1	19.5	45.0	14.1				
21 plants....	1910	231	84.0	.196	16.47				.9	1.7	1.7	30.3	21.2	35.1	9.1				
	1911	203	82.9	.194	15.99				1.0	1.0	3.0	34.5	14.8	37.4	8.4				
	1912	237	78.1	.200	15.48					1.7	2.5	19.4	17.7	49.8	8.9				
23 plants....	1912	241	78.2	.199	15.46					2.5	2.5	19.1	17.4	49.8	8.7				
	1913	234	82.3	.215	17.60					2.6	1.7	7.7	70.1	15.4					
Larry men's helpers: 10 plants....	1907	115	84.0	.159	13.35				7.0	1.7	29.6	61.7							
	1908	79	84.0	.152	12.80				12.7		45.6	41.8							
	1909	135	84.0	.149	12.53				7.4	28.1	30.4	34.1							
	1910	134	84.0	.163	13.69				6.0		29.1	50.0	14.9						
19 plants....	1910	278	84.0	.165	13.88				4.3	7.23	64.0	7.2							
	1911	204	82.6	.168	13.89				7	4.1	15.6	72.8	6.8						
	1912	343	79.6	.173	13.67					4.1	5.2	74.3	5.8	10.5					
23 plants....	1912	359	79.6	.172	13.64					4.5	5.6	73.3	6.7	10.0					
	1913	342	82.6	.190	15.69					4.7	1.2	8.2	41.8	44.2					
Skip operators: 11 plants....	1907	86	84.0	.193	16.19					11.6	27.9	4.7	53.5	2.3					
	1908	64	84.0	.184	15.49					9.4	9.4	25.0	9.4	43.8	3.1				
	1909	94	84.0	.183	15.40					8.5	29.8	42.6	17.0	2.1					
	1910	97	84.0	.196	16.46					8.2	32.0	8.2	49.5	2.1					
19 plants....	1910	125	84.0	.197	16.56					8.0	28.0	11.2	48.0	4.8					
	1911	124	83.8	.198	16.60					6.5	27.4	1.6	56.5	8.1					
	1912	136	79.2	.206	16.14					5.9	27.9	4.4	39.7	22.1					
20 plants....	1912	138	79.3	.206	16.19					5.8	27.5	4.3	40.6	21.7					
	1913	150	82.9	.217	17.95					5.3	4.0	9.3	73.3	8.0					
Blowers: 18 plants....	1907	78	84.0	.300	25.17								12.8	28.2	52.6	6.4			
	1908	68	84.0	.283	23.74								17.6	44.1	38.2				
	1909	86	84.0	.286	24.04								23.3	38.4	38.4				
	1910	90	84.0	.307	25.80								12.2	36.7	48.9	2.2			
32 plants....	1910	131	83.5	.296	24.74					.8			20.6	34.4	42.0	2.3			
	1911	121	82.9	.306	25.24						1.7		19.8	27.3	41.3	9.9			
33 plants....	1911	123	82.9	.305	25.21						1.6		19.5	28.5	40.7	9.8			
	1912	132	80.2	.313	24.84						1.5		15.9	28.8	40.2	13.6			
34 plants....	1912	139	80.3	.315	25.01						1.4		16.5	27.3	40.3	14.4			
	1913	147	82.0	.329	26.84							1.4	15.0	16.3	54.4	12.9			
Blowing engineers: 20 plants....	1907	100	84.0	.242	20.30					2.0	6.0	12.0	12.0	65.0	3.0				
	1908	85	84.0	.235	19.77					4.7	4.7	7.1	35.3	48.2					
	1909	103	84.0	.230	19.35					3.9	5.8	11.7	40.8	37.9					
	1910	112	84.0	.245	20.59					1.8	5.4	7.1	37.5	41.1	7.1				

¹ Including 2.7 per cent earning 50 and under 60 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BLAST FURNACES—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.											
						8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	
Blowing engineers—Con.																	
34 plants....	1910	153	84.0	\$0.243	\$20.39					1.3	9.2	9.8	29.4	45.1	5.2		
	1911	135	83.0	.244	20.20					1.5	7.4	10.4	29.6	45.2	5.9		
35 plants....	1911	137	82.9	.244	20.15					1.5	7.3	10.2	30.7	44.5	5.8		
	1912	142	80.6	.249	19.93					1.4	7.0	14.1	21.8	44.4	11.3		
35 plants....	1912	142	80.6	.249	19.93					1.4	7.0	14.1	21.8	44.4	11.3		
	1913	148	81.6	.263	21.37					1.4		16.2	20.9	34.5	25.7	1.4	
Blowing engineers' assistants:																	
11 plants....	1907	67	84.0	.203	17.02				6.0	3.0	3.0	23.9	49.3	14.9			
	1908	51	84.0	.199	16.72			3.9	7.8	3.9		23.5	45.1	15.7			
	1909	74	84.0	.191	16.08			8.1	2.7	5.4	5.4	35.1	29.7	13.5			
	1910	66	84.0	.208	17.48				3.0	6.1	3.0	18.2	54.5	15.2			
18 plants....	1910	94	84.0	.207	17.38				2.1	6.4	3.2	18.1	59.6	10.6			
	1911	91	83.2	.205	17.06				2.2	6.6	2.2	20.9	63.7	4.4			
	1912	108	80.4	.211	16.85				3.7	3.7	3.7	14.8	66.7	7.4			
18 plants....	1912	106	80.8	.213	17.13					3.8	3.8	15.1	69.8	7.5			
	1913	94	83.2	.225	18.67					4.3	4.3	2.1	66.0	19.1	4.3		
Stove tenders:																	
20 plants....	1907	140	84.0	.192	16.10				2.9	11.4	6.4	52.1	18.6	8.6			
	1908	96	84.0	.185	15.52			2.1	8.3	8.3	4.2	37.5	39.6				
	1909	140	84.0	.181	15.22			1.4	8.6	12.1	10.0	37.1	30.7				
	1910	146	84.0	.197	16.55				2.7	8.2	12.3	19.2	57.5				
34 plants....	1910	200	84.0	.193	16.21				3.0	11.0	16.0	18.0	52.0				
	1911	178	82.7	.190	15.69				3.4	12.4	12.4	22.5	49.4				
35 plants....	1911	180	82.7	.190	15.68				3.3	12.2	13.3	22.2	48.9				
	1912	212	79.5	.195	15.42				2.8	10.4	14.2	14.2	58.5				
36 plants....	1912	214	79.5	.195	15.38				3.7	10.3	14.0	14.0	57.9				
	1913	213	81.8	.211	17.24				2.8	4.7	13.6	2.3	76.5				
Keepers:																	
20 plants....	1907	146	84.0	.218	18.34					12.3	5.5	1.4	64.4	16.4			
	1908	96	84.0	.210	17.68				6.3	8.3	6.3		75.0	4.2			
	1909	141	84.0	.205	17.26				7.1	9.9	2.8	2.8	74.5	2.8			
	1910	142	84.0	.219	18.43					7.7	1.4	11.3	75.4	4.2			
34 plants....	1910	201	84.0	.215	18.09					9.5	2.0	18.4	67.2	3.0			
	1911	182	82.7	.217	17.95					9.9	2.2	15.4	70.3	2.2			
35 plants....	1911	184	82.7	.217	17.95					9.8	2.2	15.2	70.7	2.2			
	1912	216	79.6	.223	17.61					6.5	5.6	13.4	63.4	11.1			
36 plants....	1912	218	79.6	.223	17.59					6.4	5.5	14.2	62.8	11.0			
	1913	224	81.9	.234	19.13					3.6	5.4	14.3	29.5	47.3			
Keepers' helpers:																	
20 plants....	1907	616	84.0	.165	13.89				7.8	15.3	7.5	35.1	18.8	15.6			
	1908	409	84.0	.160	13.41				11.7	16.6	3.9	39.4	21.5	6.8			
	1909	596	84.0	.155	13.04				15.1	16.9	9.1	35.4	20.1	3.4			
	1910	608	84.0	.169	14.22				6.3	9.4	13.7	30.9	31.6	8.2			
34 plants....	1910	877	84.0	.168	14.13				4.3	12.0	17.0	30.7	27.8	8.2			
	1911	734	83.1	.167	13.83				8.2	12.5	13.1	26.7	31.9	7.6			
35 plants....	1911	742	83.1	.167	13.84				8.1	12.4	12.9	26.7	32.3	7.5			
	1912	846	81.0	.170	13.74				7.3	9.0	16.3	22.7	33.0	11.7			
36 plants....	1912	870	80.2	.173	13.75				4.6	9.9	16.1	22.5	32.1	14.8			
	1913	902	82.2	.186	15.30				4.4	4.0	13.7	12.2	8.6	57.0			

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BLAST FURNACES—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.										
						8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.
Iron handlers and loaders: 9 plants.....	1907	203	73.2	\$0.193	\$14.20	.....	.....	.....	4.9	12.8	42.4	8.9	25.1	.....	.....	5.9
	1908	163	73.0	.190	13.95	.....	.....	1.8	14.1	16.6	27.6	3.7	24.5	3.1	8.6	.....
	1909	242	73.6	.177	13.05	.....	.....	.....	11.6	19.4	35.5	5.4	20.7	7.4	.....	.....
	1910	177	73.0	.195	14.24	.....	.....	.....	9.6	10.7	38.4	6.8	18.6	15.8	.....	.....
	1911	305	74.2	.194	14.36	.....	.....	.....	7.9	10.5	42.3	7.2	17.7	11.8	2.6	.....
18 plants....	1910	300	72.7	.195	14.11	.....	.....	.....	7.0	11.0	32.7	10.0	25.0	7.3	7.0	.....
	1911	308	73.0	.195	14.17	.....	.....	.....	6.8	10.7	31.8	12.3	24.4	7.1	6.8	.....
19 plants....	1911	359	72.2	.195	14.04	.....	.....	.....	3.1	16.4	32.0	16.7	18.9	5.0	7.8	.....
	1912	406	73.1	.206	15.11	.....	.....	.....	2.7	13.5	29.3	14.8	19.7	5.2	14.8	.....
19 plants....	1913	446	72.5	.220	16.07	.....	.....	.....	2	4.9	28.7	8.1	39.5	9	17.7	.....
Pig-machine men: 9 plants.....	1907	193	84.0	.167	14.03	.....	.....	.....	13.0	15.5	57.0	3.1	10.4	1.0	.....	.....
	1908	157	83.9	.163	13.69	.....	.....	.....	11.5	8.3	68.8	7.6	3.8	.....	.....	.....
	1909	152	83.9	.162	13.57	.....	.....	.....	15.1	7.2	64.5	9.2	3.9	.....	.....	.....
	1910	182	83.8	.170	14.27	.....	.....	.....	7.1	14.8	50.5	24.2	3.3	.....	.....	.....
	1911	291	83.9	.169	14.14	.....	.....	.....	5.8	15.1	57.0	19.9	2.1	.....	.....	.....
16 plants....	1910	259	82.4	.169	13.90	.....	.....	.....	11.2	13.1	53.3	17.8	4.6	.....	.....	.....
	1911	267	82.4	.169	13.98	.....	.....	.....	10.9	12.7	51.7	19.5	5.2	.....	.....	.....
17 plants....	1912	275	81.9	.171	13.97	.....	.....	.....	6.5	8.4	63.3	18.2	3.6	.....	.....	.....
	1913	290	81.8	.192	15.69	.....	.....	.....	2.8	3.4	12.1	38.6	43.1	.....	.....	.....
Cinder men: 20 plants.....	1907	262	83.6	.173	14.46	.....	.....	.....	8	4.6	24.4	45.0	9.2	16.0	.....	.....
	1908	245	82.6	.156	12.85	0.8	0.8	.....	6.9	13.9	33.5	34.3	.....	9.8	.....	.....
	1909	380	82.2	.150	12.34	.....	.....	.....	6.3	27.6	19.7	40.3	.....	5.5	.....	.....
	1910	357	82.9	.166	13.78	.....	.....	.....	2.5	8.7	11.5	62.7	11.8	.....	2.2	.....
	1911	482	82.9	.163	13.56	.....	.....	.....	2.3	8.9	19.9	58.1	8.7	.....	1.7	.....
32 plants....	1911	339	81.3	.158	12.84	.....	.....	.....	1.8	20.4	21.2	45.7	9.7	3	3	.....
	1912	333	81.3	.158	12.82	.....	.....	.....	1.8	20.7	22.2	44.1	9.9	3	3	.....
32 plants....	1912	397	75.2	.164	12.20	.....	.....	.....	1.5	8.8	28.5	37.3	15.6	7.8	.....	.....
	1913	356	77.3	.162	12.49	.....	.....	.....	3.9	7.9	22.8	44.4	18.5	2.0	.....	.....
33 plants....	1913	380	79.9	.179	14.27	.....	.....	.....	3.7	5.5	12.1	12.6	35.5	30.5	.....	.....
Laborers: 20 plants.....	1907	957	75.8	.146	11.13	.....	.....	.....	3.7	28.6	39.8	27.9	.....	.....	.....	.....
	1908	718	72.8	.140	10.24	.....	.....	.....	24.1	10.3	41.1	24.0	.....	.....	.....	.....
	1909	757	73.0	.138	10.17	.....	.....	.....	23.1	25.9	24.4	26.0	.....	.....	.....	.....
	1910	902	73.6	.152	11.18	.....	.....	.....	4.2	21.8	21.1	52.9	.....	.....	.....	.....
	1911	1,423	74.7	.150	11.23	.....	.....	.....	3.1	23.3	32.7	40.8	.....	.....	.....	.....
34 plants....	1911	935	73.3	.151	11.13	.....	.....	.....	4.1	25.7	24.0	46.3	.....	.....	.....	.....
	1912	937	73.3	.151	11.14	.....	.....	.....	4.1	25.6	24.1	46.2	.....	.....	.....	.....
35 plants....	1912	961	73.1	.152	11.15	.....	.....	.....	3.2	24.7	23.6	48.4	.....	.....	.....	.....
	1913	1,049	73.1	.152	11.15	.....	.....	.....	3.3	23.0	26.3	47.3	.....	.....	.....	.....
35 plants....	1913	1,273	72.5	.171	12.43	.....	.....	.....	8	14.1	17.0	19.6	36.5	11.9	.....	.....

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR, IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BLAST FURNACES.

[The abbreviation "G. L. and M. W." stands for "Great Lakes and Middle West."]

STOCKERS.

Year and district.	Number of plants.	Number of employ-ees.	Av-erage full-time hours per week.	Av-erage rate of wages per hour.	Av-erage full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.
1912.																
Eastern.....	5	81	68.8	\$0.172	\$11.81				9	39	8	18			7	
Pittsburgh.....	8	617	80.6	.180	14.58				30	29	323	181	14	20	20	
G. L. and M. W.....	10	224	77.6	.169	13.12				57	139	18		10			
Southern.....	11	147	78.6	.130	10.20			83	14	37			13			
Total.....	34	1,069	78.8	.171	13.46			83	53	162	470	217	37	20	27	
1913.																
Eastern.....	5	102	68.8	.187	12.79				10	46	14		10	14	8	
Pittsburgh.....	8	681	81.4	.202	16.50					7	34	237	359	44		
G. L. and M. W.....	10	238	77.6	.191	14.81						27	136	71	4		
Southern.....	11	166	76.5	.137	10.33			53	51	24	22	10	6			
Total.....	34	1,187	78.9	.190	14.98			53	61	77	97	383	446	62	8	

BOTTOM FILLERS.

1912.																
Eastern.....	3	134	84.0	\$0.142	\$11.94				44	90						
Pittsburgh.....	2	44	84.0	.186	15.61						14	30				
G. L. and M. W.....	4	116	84.0	.178	14.93						8	62	46			
Southern.....	5	129	77.6	.131	10.25				85	44						
Total.....	14	423	82.0	.153	12.63				129	142	76	76				
1913.																
Eastern.....	3	118	84.0	.158	13.27					118						
Pittsburgh.....	2	42	84.0	.205	17.24							10	32			
G. L. and M. W.....	4	134	84.0	.193	16.22							88	46			
Southern.....	5	167	77.5	.144	11.19				95	72						
Total.....	14	461	81.6	.167	13.74				95	190		98	78			

TOP FILLERS.

1912.																
Eastern.....	3	16	84.0	\$0.154	\$12.96					8	8					
Pittsburgh.....	1	6	84.0	.217	18.23								6			
G. L. and M. W.....	3	30	78.4	.218	16.62							12	12		6	
Southern.....	7	44	79.1	.147	11.61			4	12	18	6	4				
Total.....	14	96	80.0	.175	13.81			4	12	26	14	16	18		6	
1913.																
Eastern.....	3	16	84.0	.179	14.99						8	8				
Pittsburgh.....	1	6	84.0	.238	19.99								6			
G. L. and M. W.....	3	30	78.4	.238	18.21								24		6	
Southern.....	7	46	79.8	.159	12.66			2	6	18	6	14				
Total.....	14	98	80.3	.191	15.19			2	6	18	14	22	30		6	

LARRY MEN.

1912.																
Eastern.....	3	8	78.0	\$0.194	\$15.17						2	4	2			
Pittsburgh.....	8	142	76.9	.197	15.02						40	28	74			
G. L. and M. W.....	6	65	78.6	.221	17.29								44	21		
Southern.....	6	26	84.0	.160	13.40			6	6	4	10					
Total.....	23	241	78.2	.199	15.46			6	6	46	42	120	21			
1913.																
Eastern.....	3	10	79.2	.201	16.01							6	4			
Pittsburgh.....	8	130	84.0	.214	17.96								124	6		
G. L. and M. W.....	6	66	78.5	.239	18.63								36	30		
Southern.....	6	28	84.0	.168	14.08			6	6	4	12					
Total.....	23	234	82.3	.215	17.60			6	6	4	18	164	36			

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR, IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BLAST FURNACES—Continued.**LARRY MEN'S HELPERS.**

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.
1912.																
Eastern.....	3	10	79.2	\$0.166	\$13.19					6		4				
Pittsburgh.....	8	248	79.9	.178	14.13						192	20	36			
G. L. and M. W.....	6	75	76.8	.168	12.90					4	71					
Southern.....	6	26	84.0	.134	11.26				16	10						
Total.....	23	359	79.6	.172	13.64				16	20	263	24	36			
1913.																
Eastern.....	3	14	80.6	.171	13.85					4	2	8				
Pittsburgh.....	8	230	84.0	.197	16.55							88	142			
G. L. and M. W.....	6	70	77.8	.190	14.75						14	47	9			
Southern.....	6	28	84.0	.142	11.89				16		12					
Total.....	23	342	82.6	.190	15.69				16	4	28	143	151			

SKIP OPERATORS.

1912.																
Eastern.....	3	8	78.0	\$0.186	\$14.60						6		2			
Pittsburgh.....	8	76	77.4	.217	16.53						20	6	24	26		
G. L. and M. W.....	5	34	81.2	.214	17.36								30	4		
Southern.....	4	20	84.0	.161	13.52					8	12					
Total.....	20	138	79.3	.206	16.19					8	38	6	56	30		
1913.																
Eastern.....	3	10	79.2	.196	15.70						4	2	4			
Pittsburgh.....	8	80	84.0	.227	19.04								72	8		
G. L. and M. W.....	5	38	80.8	.228	18.39								34	4		
Southern.....	4	22	84.0	.170	14.26					8	2	12		4		
Total.....	20	150	82.9	.217	17.95					8	6	14	110	12		

BLOWERS.

1912.																
Eastern.....	6	16	81.8	\$0.252	\$20.41								11	3	1	1
Pittsburgh.....	8	50	79.0	.332	25.85									23	19	8
G. L. and M. W.....	9	39	80.0	.353	28.06									4	26	9
Southern.....	11	34	81.9	.274	22.46						2		12	8	10	2
Total.....	34	139	80.3	.315	25.01						2		23	38	56	20
1913.																
Eastern.....	6	17	81.9	.254	20.61								10	4	2	1
Pittsburgh.....	8	46	84.0	.351	29.47									5	35	6
G. L. and M. W.....	9	50	80.2	.366	29.05									8	32	10
Southern.....	11	34	81.9	.283	23.16							2	12	7	11	2
Total.....	34	147	82.0	.329	26.84							2	22	24	80	19

BLOWING ENGINEERS.

1912.																
Eastern.....	6	16	82.5	\$0.192	\$15.84						8	6		2		
Pittsburgh.....	9	46	80.3	.278	22.12								2	38	6	
G. L. and M. W.....	10	54	80.0	.267	21.25								22	22	10	
Southern.....	10	26	81.2	.195	15.83					2	2	14	7	1		
Total.....	35	142	80.6	.249	19.93					2	10	20	31	63	16	
1913.																
Eastern.....	6	16	82.5	.195	16.12							14		2		
Pittsburgh.....	9	44	84.0	.289	24.25									30	14	
G. L. and M. W.....	10	60	79.6	.287	22.73								16	18	24	2
Southern.....	10	28	81.4	.208	16.92					2		10	15	1		
Total.....	35	148	81.6	.263	21.37					2		24	31	51	38	2

¹ Including 4 employees earning 50 and under 60 cents per hour.

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR, IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BLAST FURNACES—Continued.

BLOWING ENGINEERS' ASSISTANTS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.
1912.																
Eastern.....	3	6	80.0	\$0.177	\$14.17						4		2			
Pittsburgh.....	8	69	80.3	.222	17.73								66	3		
G. L. and M. W.	4	17	80.5	.219	17.47							6	6	5		
Southern.....	3	14	84.0	.179	15.07					4		10				
Total.....	18	106	80.8	.213	17.13					4	4	16	74	8		
1913.																
Eastern.....	3	6	80.0	.181	14.49						4		2			
Pittsburgh.....	8	58	84.0	.234	19.68								40	18		
G. L. and M. W.	4	16	81.0	.238	19.10								12			4
Southern.....	3	14	84.0	.188	15.79					4		2	8			
Total.....	18	94	83.2	.225	18.67					4	4	2	62	18	4	

STOVE TENDERS.

1912.																
Eastern.....	6	20	81.6	\$0.166	\$13.56					6	14					
Pittsburgh.....	9	92	78.5	.207	16.15							20	72			
G. L. and M. W.	10	64	78.8	.209	16.41						2	10	52			
Southern.....	11	38	82.1	.155	12.73				8	16	14					
Total.....	36	214	79.5	.195	15.38				8	22	30	30	124			
1913.																
Eastern.....	6	21	81.7	.173	14.18						18	3				
Pittsburgh.....	9	86	84.0	.223	18.71								86			
G. L. and M. W.	10	67	78.6	.229	17.97							2	65			
Southern.....	11	39	82.5	.174	14.38				6	10	11		12			
Total.....	36	213	81.8	.211	17.24				6	10	29	5	163			

KEEPERS.

1912.																
Eastern.....	6	20	81.6	\$0.179	\$14.54						8	11	1			
Pittsburgh.....	9	92	78.5	.248	19.25								74	18		
G. L. and M. W.	10	68	79.1	.231	18.24								62	6		
Southern.....	11	38	82.1	.170	14.02					14	4	20				
Total.....	36	218	79.6	.223	17.59					14	12	31	137	24		
1913.																
Eastern.....	6	22	81.8	.193	15.76							14	8			
Pittsburgh.....	9	86	84.0	.259	21.73									86		
G. L. and M. W.	10	74	79.1	.247	19.56								54	20		
Southern.....	11	42	82.3	.180	14.82					8	12	18	4			
Total.....	36	224	81.9	.234	19.13					8	12	32	66	106		

KEEPERS' HELPERS.

1912.																
Eastern.....	6	120	82.8	\$0.148	\$12.21				24	80	16					
Pittsburgh.....	9	318	78.2	.191	14.78						146	82	90			
G. L. and M. W.	10	274	80.3	.186	14.89					4	34	197	39			
Southern.....	11	158	82.0	.132	10.88			40	62	56						
Total.....	36	870	80.2	.173	13.75			40	86	140	196	279	129			
1913.																
Eastern.....	6	130	82.9	.162	13.44					60	70					
Pittsburgh.....	9	292	84.0	.207	17.42							34	258			
G. L. and M. W.	10	300	80.4	.204	16.35							44	256			
Southern.....	11	180	81.7	.140	11.45			40	36	64	40					
Total.....	36	902	82.2	.186	15.30			40	36	124	110	78	514			

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR, IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BLAST FURNACES—Concluded.

IRON HANDLERS AND LOADERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						8 and under 9 cts.	9 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.
1912.																
Eastern	4	62	79.3	\$0.213	\$16.58							26	12		18	6
Pittsburgh	2	32	77.1	.231	17.69							10		12		10
G. L. and M. W.	3	108	77.0	.247	19.14						12	6	28	18		44
Southern	10	204	68.5	.178	12.13						11	43	77	20	50	3
Total	19	406	73.1	.206	15.11						11	55	119	60	80	21
1913.																
Eastern	4	58	77.2	.259	19.37							20		12		26
Pittsburgh	2	29	78.8	.261	20.40									18	1	10
G. L. and M. W.	3	128	76.2	.263	20.19							9	76			43
Southern	10	231	68.4	.181	12.41					1	22	108	27	70	3	
Total	19	446	72.5	.220	16.07					1	22	128	36	176	4	79

PIG-MACHINE MEN.

1912.																
Eastern.....	1	17	72.0	\$0.157	\$11.27	.....	.....	.....	.....	9	8	.....	.....	.....	.....	.....
Pittsburgh.....	7	153	84.0	.173	14.52	.....	.....	.....	10	2	113	26	2	.....	.....	.....
G. L. and M. W.	7	85	79.5	.176	14.00	.....	.....	.....	.....	.....	53	24	8	.....	.....	.....
Southern.....	2	20	84.0	.142	11.89	.....	.....	.....	8	12	.....	.....	.....	.....	.....	.....
Total.....	17	275	81.9	.171	13.97	.....	.....	.....	18	23	174	50	10	.....	.....	.....
1913.																
Eastern.....	1	18	72.0	.156	11.25	.....	.....	.....	.....	10	8	.....	.....	.....	.....	.....
Pittsburgh.....	7	158	84.0	.196	16.49	.....	.....	.....	.....	.....	8	80	70	.....	.....	.....
G. L. and M. W.	7	94	79.7	.199	15.82	.....	.....	.....	.....	.....	7	32	55	.....	.....	.....
Southern.....	2	20	84.0	.151	12.72	.....	.....	.....	8	.....	12	.....	.....	.....	.....	.....
Total.....	17	290	81.8	.192	15.69	.....	.....	.....	8	10	35	112	125	.....	.....	.....

CINDER MEN.

1912.																
Eastern.....	6	26	81.6	\$0.147	\$11.99	.....	.....	.....	.....	26	.....	.....	.....	.....	.....	.....
Pittsburgh.....	7	119	73.1	.176	12.82	.....	.....	.....	.....	.....	69	50	.....	.....	.....	.....
G. L. and M. W.	10	143	79.1	.169	13.30	.....	.....	.....	.....	33	89	14	7	.....	.....	.....
Southern.....	10	68	79.0	.132	10.41	2	.....	14	28	22	.....	2	.....	.....	.....	.....
Total.....	33	356	77.3	.162	12.49	2	.....	14	28	81	158	66	7	.....	.....	.....
1913.																
Eastern.....	6	28	82.0	.154	12.59	.....	.....	.....	.....	18	10	.....	.....	.....	.....	.....
Pittsburgh.....	7	136	81.0	.193	15.60	.....	.....	.....	.....	.....	.....	61	75	.....	.....	.....
G. L. and M. W.	10	136	79.1	.192	15.14	.....	.....	.....	.....	.....	23	74	39	.....	.....	.....
Southern.....	10	80	78.6	.143	11.14	.....	.....	14	21	28	15	.....	2	.....	.....	.....
Total.....	33	380	79.9	.179	14.27	.....	.....	14	21	46	48	135	116	.....	.....	.....

LABORERS.

1912.																
Eastern.....	6	100	68.6	\$0.144	\$9.82	.....	.....	.....	28	65	6	1	.....	.....	.....	.....
Pittsburgh.....	9	311	76.7	.163	12.54	.....	.....	.....	4	82	225	.....	.....	.....	.....	.....
G. L. and M. W.	9	326	72.3	.166	11.98	.....	.....	.....	.....	61	265	.....	.....	.....	.....	.....
Southern.....	11	312	71.8	.130	9.33	.....	.....	35	209	68	.....	.....	.....	.....	.....	.....
Total.....	35	1,049	73.1	.152	11.15	.....	.....	35	241	276	496	1	.....	.....	.....	.....
1913.																
Eastern.....	6	157	68.6	.151	10.32	.....	.....	.....	.....	137	20	.....	.....	.....	.....	.....
Pittsburgh.....	9	365	77.8	.188	14.68	.....	.....	.....	.....	.....	126	154	85	.....	.....	.....
G. L. and M. W.	9	431	72.6	.189	13.68	.....	.....	.....	.....	.....	53	311	67	.....	.....	.....
Southern.....	11	320	68.1	.136	9.22	.....	.....	10	179	80	51	.....	.....	.....	.....	.....
Total.....	35	1,273	72.5	.171	12.43	.....	.....	10	179	217	250	465	152	.....	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BLAST FURNACES.

[The figures for each group of years are for identical plants.]

NUMBER.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Stockers:										
18 plants.....	1907	824	81.4	.....	.....	14	74	.....	105	631
	1908	473	79.1	.....	.....	4	123	.....	70	276
	1909	737	80.9	.....	.....	.....	71	.....	224	442
	1910	904	81.0	1	.....	.....	70	16	222	595
32 plants.....	1910	1,445	79.9	1	.....	12	263	30	222	917
	1911	898	79.8	.....	12	21	107	59	142	557
32 plants.....	1911	904	79.7	.....	12	25	107	59	142	559
	1912	1,045	78.7	1	11	26	112	136	244	515
34 plants.....	1912	1,069	78.8	1	11	26	112	138	244	537
	1913	1,187	78.9	1	14	34	101	161	277	599
Bottom fillers:										
7 plants.....	1907	293	84.0	.....	.....	.....	.....	.....	.....	293
	1908	194	84.0	.....	.....	.....	.....	.....	.....	194
	1909	282	84.0	.....	.....	.....	.....	.....	.....	282
	1910	267	84.0	.....	.....	.....	.....	.....	.....	267
14 plants.....	1910	672	84.0	.....	.....	.....	.....	.....	.....	672
	1911	391	84.0	.....	.....	.....	.....	.....	.....	391
15 plants.....	1911	417	84.0	.....	.....	.....	.....	.....	.....	417
	1912	468	82.2	.....	.....	.....	.....	69	.....	399
14 plants.....	1912	423	82.0	.....	.....	.....	.....	69	.....	354
	1913	461	81.6	.....	.....	.....	.....	91	.....	370
Top fillers:										
8 plants.....	1907	66	84.0	.....	.....	.....	.....	.....	.....	66
	1908	44	84.0	.....	.....	.....	.....	.....	.....	44
	1909	50	84.0	.....	.....	.....	.....	.....	.....	50
	1910	48	84.0	.....	.....	.....	.....	.....	.....	48
13 plants.....	1910	142	82.8	.....	6	.....	.....	.....	.....	136
	1911	84	82.0	.....	6	.....	.....	.....	.....	78
14 plants.....	1911	92	82.2	.....	6	.....	.....	.....	.....	86
	1912	96	80.0	.....	6	.....	.....	18	.....	72
14 plants.....	1912	96	80.0	.....	6	.....	.....	18	.....	72
	1913	98	80.3	.....	6	.....	.....	16	.....	76
Larry men:										
11 plants.....	1907	132	84.0	.....	.....	.....	.....	.....	.....	132
	1908	86	84.0	.....	.....	.....	.....	.....	.....	86
	1909	135	84.0	.....	.....	.....	.....	.....	.....	135
	1910	149	84.0	.....	.....	.....	.....	.....	.....	149
21 plants.....	1910	231	84.0	.....	.....	.....	.....	.....	.....	231
	1911	203	82.9	.....	.....	.....	.....	19	.....	184
	1912	237	78.1	.....	36	.....	.....	33	.....	168
23 plants.....	1912	241	78.2	.....	36	.....	.....	33	.....	172
	1913	234	82.3	.....	.....	.....	.....	34	.....	200
Larry men's helpers:										
10 plants.....	1907	115	84.0	.....	.....	.....	.....	.....	.....	115
	1908	79	84.0	.....	.....	.....	.....	.....	.....	79
	1909	135	84.0	.....	.....	.....	.....	.....	.....	135
	1910	134	84.0	.....	.....	.....	.....	.....	.....	134
19 plants.....	1910	278	84.0	.....	.....	.....	.....	.....	.....	278
	1911	294	82.6	.....	.....	.....	.....	34	.....	260
	1912	343	79.6	.....	36	.....	.....	43	.....	264
23 plants.....	1912	359	79.6	.....	36	.....	.....	49	.....	274
	1913	342	82.6	.....	.....	.....	.....	40	.....	302
Skip operators:										
11 plants.....	1907	86	84.0	.....	.....	.....	.....	.....	.....	86
	1908	64	84.0	.....	.....	.....	.....	.....	.....	64
	1909	94	84.0	.....	.....	.....	.....	.....	.....	94
	1910	97	84.0	.....	.....	.....	.....	.....	.....	97

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BLAST FURNACES—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Skip operators—Concluded.										
19 plants.....	1910	125	84.0							125
	1911	124	83.8					2		122
	1912	136	79.2		18			12		106
20 plants.....	1912	138	79.3		18			12		108
	1913	150	82.9					14		136
Blowers:										
18 plants.....	1907	78	84.0							78
	1908	68	84.0							68
	1909	86	84.0							86
	1910	90	84.0							90
32 plants.....	1910	131	83.5			3				128
	1911	121	82.9					11		110
33 plants.....	1911	123	82.9					11		112
	1912	132	80.2		9			21		102
34 plants.....	1912	139	80.3		9			22		108
	1913	147	82.0					25		122
Blowing engineers:										
20 plants.....	1907	100	84.0							100
	1908	85	84.0							85
	1909	103	84.0							103
	1910	112	84.0							112
34 plants.....	1910	153	84.0							153
	1911	135	83.0					11		124
35 plants.....	1911	137	82.9					13		124
	1912	142	80.6		6			26		110
35 plants.....	1912	142	80.6		6			26		110
	1913	148	81.6					30		118
Blowing engineers' assistants:										
11 plants.....	1907	67	84.0							67
	1908	51	84.0							51
	1909	74	84.0							74
	1910	66	84.0							66
18 plants.....	1910	94	84.0							94
	1911	91	83.2					6		85
	1912	108	80.4		9			11		88
18 plants.....	1912	106	80.8		9			7		90
	1913	94	83.2					6		88
Stove tenders:										
20 plants.....	1907	140	84.0							140
	1908	96	84.0							96
	1909	140	84.0							140
	1910	146	84.0							146
34 plants.....	1910	200	84.0							200
	1911	178	82.7					20		158
35 plants.....	1911	180	82.7					20		160
	1912	212	79.5		18			38		156
36 plants.....	1912	214	79.5		18			38		158
	1913	213	81.8					39		174
Keepers:										
20 plants.....	1907	146	84.0							146
	1908	96	84.0							96
	1909	141	84.0							141
	1910	142	84.0							142
34 plants.....	1910	201	84.0							201
	1911	182	82.7					20		162
35 plants.....	1911	184	82.7					20		164
	1912	216	79.6		18			38		160

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BLAST FURNACES—Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Keepers—Concluded.										
36 plants.....	1912	218	79.6		18			38		162
	1913	224	81.9					40		184
Keepers' helpers:										
20 plants.....	1907	616	84.0							616
	1908	409	84.0							409
	1909	596	84.0							596
	1910	608	84.0							608
34 plants.....	1910	877	84.0							877
	1911	734	83.1					56		678
35 plants.....	1911	742	83.1					56		686
	1912	846	81.0		36			126		684
36 plants.....	1912	870	80.2		66			122		682
	1913	902	82.2					136		766
Iron handlers and loaders:										
9 plants.....	1907	203	73.2				122		12	69
	1908	163	73.0				97		14	52
	1909	242	73.6				138		18	86
	1910	177	73.0				105		18	54
18 plants.....	1910	305	74.2				179		18	108
	1911	300	72.7			4	189		18	89
19 plants.....	1911	308	73.0			4	189		18	97
	1912	359	72.2			28	179	36	18	98
19 plants.....	1912	406	73.1			24	198	36	18	130
	1913	446	72.5		10	35	211	41	18	131
Pig-machine men:										
9 plants.....	1907	193	84.0							193
	1908	157	83.9						3	154
	1909	152	83.9						3	149
	1910	182	83.8			1	1			180
16 plants.....	1910	291	83.9			1	1			289
	1911	259	82.4			1		33		225
17 plants.....	1911	267	82.4			1		33		233
	1912	275	81.9			1		47		227
	1913	290	81.8			1		50		239
Cinder men:										
20 plants.....	1907	262	83.6				4		27	231
	1908	245	82.6				20		24	201
	1909	380	82.2			3	33		48	296
	1910	357	82.9			1	24		20	312
32 plants.....	1910	482	82.9			1	34		20	427
	1911	339	81.3				33	35	6	265
32 plants.....	1911	333	81.3				33	35	6	259
	1912	397	75.2		68	24	44	36	1	224
33 plants.....	1912	356	77.3		38	14	36	42	1	225
	1913	380	79.9			5	47	58	26	244
Laborers:										
20 plants.....	1907	957	75.8			106	350	1	52	448
	1908	718	72.8			142	272		109	195
	1909	757	73.0			102	378	15	53	209
	1910	902	73.6			159	332	23	45	343
34 plants.....	1910	1,423	74.7			269	404	26	298	426
	1911	935	73.3			197	288	28	134	288
35 plants.....	1911	937	73.3			197	288	28	134	290
	1912	961	73.1			192	302	81	92	294
35 plants.....	1912	1,049	73.1			207	318	109	93	322
	1913	1,273	72.5		2	279	438	125	54	1 375

¹ Including 1 employee whose full-time hours per week were 91.

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK
IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BLAST FURNACES—
Continued.

PER CENT.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Stockers:										
18 plants.....	1907	824	81.4	.....	.....	1.7	9.0	.....	12.7	76.6
	1908	473	79.1	.....	.....	.8	26.0	.....	14.8	58.4
	1909	737	80.9	.....	.....	.....	9.6	.....	30.4	60.0
	1910	904	81.0	0.1	.....	.....	7.7	1.8	24.6	65.8
32 plants.....	1910	1,445	79.9	.1	.....	.8	18.2	2.1	15.4	63.5
	1911	898	79.8	.....	1.3	2.3	11.9	6.6	15.8	62.0
32 plants.....	1911	904	79.7	.....	1.3	2.8	11.8	6.5	15.7	61.8
	1912	1,045	78.7	.1	1.1	2.5	10.7	13.0	23.3	49.3
34 plants.....	1912	1,069	78.8	.1	1.0	2.4	10.5	12.9	22.8	50.2
	1913	1,187	78.9	.1	1.2	2.9	8.5	13.6	23.3	50.5
Bottom fillers:										
7 plants.....	1907	293	84.0	.....	.....	.....	.....	.....	.....	100.0
	1908	194	84.0	.....	.....	.....	.....	.....	.....	100.0
	1909	282	84.0	.....	.....	.....	.....	.....	.....	100.0
	1910	267	84.0	.....	.....	.....	.....	.....	.....	100.0
14 plants.....	1910	672	84.0	.....	.....	.....	.....	.....	.....	100.0
	1911	391	84.0	.....	.....	.....	.....	.....	.....	100.0
15 plants.....	1911	417	84.0	.....	.....	.....	.....	.....	.....	100.0
	1912	468	82.2	.....	.....	.....	.....	14.7	.....	85.3
14 plants.....	1912	423	82.0	.....	.....	.....	.....	16.3	.....	83.7
	1913	461	81.6	.....	.....	.....	.....	19.7	.....	80.3
Top fillers:										
8 plants.....	1907	66	84.0	.....	.....	.....	.....	.....	.....	100.0
	1908	44	84.0	.....	.....	.....	.....	.....	.....	100.0
	1909	50	84.0	.....	.....	.....	.....	.....	.....	100.0
	1910	48	84.0	.....	.....	.....	.....	.....	.....	100.0
13 plants.....	1910	142	82.8	.....	4.2	.....	.....	.....	.....	95.8
	1911	84	82.0	.....	7.1	.....	.....	.....	.....	92.9
14 plants.....	1911	92	82.2	.....	6.5	.....	.....	.....	.....	93.5
	1912	96	80.0	.....	6.3	.....	.....	18.8	.....	75.0
14 plants.....	1912	96	80.0	.....	6.3	.....	.....	18.8	.....	75.0
	1913	98	80.3	.....	6.1	.....	.....	16.3	.....	77.6
Larry men:										
11 plants.....	1907	132	84.0	.....	.....	.....	.....	.....	.....	100.0
	1908	86	84.0	.....	.....	.....	.....	.....	.....	100.0
	1909	135	84.0	.....	.....	.....	.....	.....	.....	100.0
	1910	149	84.0	.....	.....	.....	.....	.....	.....	100.0
21 plants.....	1910	231	84.0	.....	.....	.....	.....	.....	.....	100.0
	1911	203	82.9	.....	.....	.....	.....	9.4	.....	90.6
	1912	237	78.1	.....	15.2	.....	.....	13.9	.....	70.9
23 plants.....	1912	241	78.2	.....	14.9	.....	.....	13.7	.....	71.4
	1913	234	82.3	.....	.....	.....	.....	14.5	.....	85.5
Larry men's helpers:										
10 plants.....	1907	115	84.0	.....	.....	.....	.....	.....	.....	100.6
	1908	79	84.0	.....	.....	.....	.....	.....	.....	100.0
	1909	135	84.0	.....	.....	.....	.....	.....	.....	100.0
	1910	134	84.0	.....	.....	.....	.....	.....	.....	100.0
19 plants.....	1910	278	84.0	.....	.....	.....	.....	.....	.....	100.0
	1911	294	82.6	.....	.....	.....	.....	11.6	.....	88.4
	1912	343	79.6	.....	10.5	.....	.....	12.5	.....	77.0
23 plants.....	1912	359	79.6	.....	10.0	.....	.....	13.6	.....	76.3
	1913	342	82.6	.....	.....	.....	.....	11.7	.....	88.3
Skip operators:										
11 plants.....	1907	86	84.0	.....	.....	.....	.....	.....	.....	100.0
	1908	64	84.0	.....	.....	.....	.....	.....	.....	100.0
	1909	94	84.0	.....	.....	.....	.....	.....	.....	100.0
	1910	97	84.0	.....	.....	.....	.....	.....	.....	100.0

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BLAST FURNACES—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Skip operators—Concluded.										
19 plants.....	1910	125	84.0							100.0
	1911	124	83.8					1.6		98.4
	1912	136	79.2		13.2			8.8		77.9
20 plants.....	1912	138	79.3		13.0			8.7		78.3
	1913	150	82.9					9.3		90.7
Blowers:										
18 plants.....	1907	78	84.0							100.0
	1908	68	84.0							100.0
	1909	86	84.0							100.0
	1910	90	84.0							100.0
32 plants.....	1910	131	83.5			2.3				97.7
	1911	121	82.9					9.1		90.9
33 plants.....	1911	123	82.9					8.9		91.1
	1912	132	80.2		6.8			15.9		77.3
34 plants.....	1912	139	80.3		6.5			15.8		77.7
	1913	147	82.0					17.0		83.0
Blowing engineers:										
20 plants.....	1907	100	84.0							100.0
	1908	85	84.0							100.0
	1909	103	84.0							100.0
	1910	112	84.0							100.0
34 plants.....	1910	153	84.0							100.0
	1911	135	83.0					8.1		91.9
35 plants.....	1911	137	82.9					9.5		90.5
	1912	142	80.6		4.2			18.3		77.5
35 plants.....	1912	142	80.6		4.2			18.3		77.5
	1913	148	81.6					20.3		79.7
Blowing engineers' assistants:										
11 plants.....	1907	67	84.0							100.0
	1908	51	84.0							100.0
	1909	74	84.0							100.0
	1910	66	84.0							100.0
18 plants.....	1910	94	84.0							100.0
	1911	91	83.2					6.6		93.4
	1912	108	80.4		8.3			10.2		81.5
18 plants.....	1912	106	80.8		8.5			6.6		84.9
	1913	94	83.2					6.4		93.6
Stove tenders:										
20 plants.....	1907	140	84.0							100.0
	1908	96	84.0							100.0
	1909	140	84.0							100.0
	1910	146	84.0							100.0
34 plants.....	1910	200	84.0							100.0
	1911	178	82.7					11.2		88.8
35 plants.....	1911	180	82.7					11.1		88.9
	1912	212	79.5		8.5			17.9		73.6
36 plants.....	1912	214	79.5		8.4			17.8		73.8
	1913	213	81.8					18.3		81.7
Keepers:										
20 plants.....	1907	146	84.0							100.0
	1908	96	84.0							100.0
	1909	141	84.0							100.0
	1910	142	84.0							100.0
34 plants.....	1910	201	84.0							100.0
	1911	182	82.7					11.0		89.0
35 plants.....	1911	184	82.7					10.9		89.1
	1912	216	79.6		8.3			17.6		74.1

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BLAST FURNACES—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Keepers—Concluded.										
36 plants.....	1912	218	79.6		8.3			17.4		74.3
	1913	224	81.9					17.9		82.1
Keepers' helpers:										
20 plants.....	1907	616	84.0							100.0
	1908	409	84.0							100.0
	1909	596	84.0							100.0
	1910	608	84.0							100.0
34 plants.....	1910	877	84.0							100.0
	1911	734	83.1					7.6		92.4
35 plants.....	1911	742	83.1					7.5		92.5
	1912	846	81.0		4.3			14.9		80.9
36 plants.....	1912	870	80.2		7.6			14.0		78.4
	1913	902	82.2					15.1		84.9
Iron handlers and loaders:										
9 plants.....	1907	203	73.2				60.1		5.9	34.0
	1908	163	73.0				59.5		8.6	31.9
	1909	242	73.6				57.0		7.4	35.5
	1910	177	73.0				59.3		10.2	30.5
18 plants.....	1910	305	74.2				58.7		5.9	35.4
	1911	300	72.7			1.3	63.0		6.0	29.7
19 plants.....	1911	308	73.0			1.3	61.4		5.8	31.5
	1912	359	72.2			7.8	49.9	10.0	5.0	27.3
19 plants.....	1912	406	73.1			5.9	48.8	8.9	4.4	32.0
	1913	446	72.5		2.2	7.8	47.3	9.2	4.0	29.4
Pig-machine men:										
9 plants.....	1907	193	84.0							100.0
	1908	157	83.9						1.9	98.1
	1909	152	83.9						2.0	98.0
	1910	182	83.8			.5	.5			98.9
16 plants.....	1910	291	83.9			.3	.3			99.3
	1911	259	82.4			.4		12.7		86.9
17 plants.....	1911	267	82.4			.4		12.4		87.3
	1912	275	81.9			.4		17.1		82.5
	1913	290	81.8			.3		17.2		82.4
Cinder men:										
20 plants.....	1907	262	83.6				1.5		10.3	88.2
	1908	245	82.6				8.2		9.8	82.0
	1909	380	82.2			.8	8.7		12.6	77.9
	1910	357	82.9			.3	6.7		5.6	87.4
32 plants.....	1910	482	82.9			.2	7.1		4.1	88.6
	1911	339	81.3				9.7	10.3	1.8	78.2
32 plants.....	1911	333	81.3				9.9	10.5	1.8	77.8
	1912	397	75.2		17.1	6.0	11.1	9.1	.3	56.4
33 plants.....	1912	356	77.3		10.7	3.9	10.1	11.8	.3	63.2
	1913	380	79.9			1.3	12.4	15.3	6.8	64.2
Laborers:										
20 plants.....	1907	957	75.8			11.1	36.6	.1	5.4	46.8
	1908	718	72.8			19.8	37.9		15.2	27.2
	1909	757	73.0			13.5	49.9	2.0	7.0	27.6
	1910	902	73.6			17.6	36.8	2.5	5.0	38.0
34 plants.....	1910	1,423	74.7			18.9	28.4	1.8	20.9	29.9
	1911	935	73.3			21.1	30.8	3.0	14.3	30.8
35 plants.....	1911	937	73.3			21.0	30.7	3.0	14.3	30.9
	1912	961	73.1			20.0	31.4	8.4	9.6	30.6
35 plants.....	1912	1,049	73.1			19.7	30.3	10.4	8.9	30.7
	1913	1,273	72.5		.2	21.9	34.4	9.8	4.2	129.5

¹ Including one-tenth of 1 per cent whose full-time hours per week were 91.

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BLAST FURNACES.

STOCKERS.

Year and district.	Number of plants.	Number of employ-ees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—						
				Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.										
Eastern.....	5	81	68.8	.....	11	14	23	22	.....	11
Pittsburgh.....	8	617	80.6	1	.....	8	14	26	244	324
Great Lakes and Middle West...	10	224	77.6	.....	.....	4	33	73	.....	114
Southern.....	11	147	78.6	.....	.....	.....	42	17	.....	88
Total.....	34	1,069	78.8	1	11	26	112	138	244	537
1913.										
Eastern.....	5	102	68.8	.....	14	26	20	21	.....	21
Pittsburgh.....	8	681	81.4	1	.....	4	8	3	277	388
Great Lakes and Middle West...	10	238	77.6	.....	.....	4	26	88	.....	120
Southern.....	11	166	76.5	.....	.....	.....	47	49	.....	70
Total.....	34	1,187	78.9	1	14	34	101	161	277	599

BOTTOM FILLERS.

1912.									
Eastern.....	3	134	84.0	.....	.....	.....	.....	.....	134
Pittsburgh.....	2	44	84.0	.....	.....	.....	.....	.....	44
Great Lakes and Middle West...	4	116	84.0	.....	.....	.....	.....	.....	116
Southern.....	5	129	77.6	.....	.....	.....	.....	69	60
Total.....	14	423	82.0	.....	.....	.....	.....	69	354
1913.									
Eastern.....	3	118	84.0	.....	.....	.....	.....	.....	118
Pittsburgh.....	2	42	84.0	.....	.....	.....	.....	.....	42
Great Lakes and Middle West...	4	134	84.0	.....	.....	.....	.....	.....	134
Southern.....	5	167	77.5	.....	.....	.....	.....	91	76
Total.....	14	461	81.6	.....	.....	.....	.....	91	370

TOP FILLERS.

1912.									
Eastern.....	3	16	84.0	.....	.....	.....	.....	.....	16
Pittsburgh.....	1	6	84.0	.....	.....	.....	.....	.....	6
Great Lakes and Middle West...	3	30	78.4	.....	6	.....	.....	.....	24
Southern.....	7	44	79.1	.....	.....	.....	18	.....	26
Total.....	14	96	80.0	.....	6	.....	18	.....	72
1913.									
Eastern.....	3	16	84.0	.....	.....	.....	.....	.....	16
Pittsburgh.....	1	6	84.0	.....	.....	.....	.....	.....	6
Great Lakes and Middle West...	3	30	78.4	.....	6	.....	.....	.....	24
Southern.....	7	46	79.8	.....	.....	.....	16	.....	30
Total.....	14	98	80.3	.....	6	.....	16	.....	76

LARRY MEN.

1912.									
Eastern.....	3	8	78.0	.....	.....	.....	4	.....	4
Pittsburgh.....	8	142	76.9	.....	36	.....	.....	.....	106
Great Lakes and Middle West...	6	65	78.6	.....	.....	.....	29	.....	36
Southern.....	6	26	84.0	.....	.....	.....	.....	.....	26
Total.....	23	241	78.2	.....	36	.....	33	.....	172
1913.									
Eastern.....	3	10	79.2	.....	.....	.....	4	.....	6
Pittsburgh.....	8	130	84.0	.....	.....	.....	.....	.....	130
Great Lakes and Middle West...	6	66	78.5	.....	.....	.....	30	.....	36
Southern.....	6	28	84.0	.....	.....	.....	.....	.....	28
Total.....	23	234	82.3	.....	.....	.....	34	.....	200

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK
IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BLAST FURNACES—
Continued.

LARRY MEN'S HELPERS.

Year and district.	Number of plants.	Number of employ-ees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—					
				Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84
1912.									
Eastern.....	3	10	79.2	.....	.....	.....	.....	4	6
Pittsburgh.....	8	248	79.9	.....	36	.....	.....	.....	212
Great Lakes and Middle West...	6	75	76.8	.....	.....	.....	.....	45	30
Southern.....	6	26	84.0	.....	.....	.....	.....	.....	26
Total.....	23	359	79.6	.....	36	.....	.....	49	274
1913.									
Eastern.....	3	14	80.6	.....	.....	.....	.....	4	10
Pittsburgh.....	8	230	84.0	.....	.....	.....	.....	.....	230
Great Lakes and Middle West...	6	70	77.8	.....	.....	.....	.....	36	34
Southern.....	6	28	84.0	.....	.....	.....	.....	.....	28
Total.....	23	342	82.6	.....	.....	.....	.....	40	302

SKIP OPERATORS.

1912.									
Eastern.....	3	8	78.0	.....	.....	.....	.....	4	4
Pittsburgh.....	8	76	77.4	.....	18	.....	.....	.....	58
Great Lakes and Middle West...	5	34	81.2	.....	.....	.....	.....	8	26
Southern.....	4	20	84.0	.....	.....	.....	.....	.....	20
Total.....	20	138	79.3	.....	18	.....	.....	12	108
1913.									
Eastern.....	3	10	79.2	.....	.....	.....	.....	4	6
Pittsburgh.....	8	80	84.0	.....	.....	.....	.....	.....	80
Great Lakes and Middle West...	5	38	80.8	.....	.....	.....	.....	10	28
Southern.....	4	22	84.0	.....	.....	.....	.....	.....	22
Total.....	20	150	82.9	.....	.....	.....	.....	14	136

BLOWERS.

1912.									
Eastern.....	6	16	81.8	.....	.....	.....	.....	3	13
Pittsburgh.....	8	50	79.0	.....	9	.....	.....	.....	41
Great Lakes and Middle West...	9	39	80.0	.....	.....	.....	.....	13	26
Southern.....	11	34	81.9	.....	.....	.....	.....	6	28
Total.....	34	139	80.3	.....	9	.....	.....	22	108
1913.									
Eastern.....	6	17	81.9	.....	.....	.....	.....	3	14
Pittsburgh.....	8	46	84.0	.....	.....	.....	.....	.....	46
Great Lakes and Middle West...	9	50	80.2	.....	.....	.....	.....	16	34
Southern.....	11	34	81.9	.....	.....	.....	.....	6	28
Total.....	34	147	82.0	.....	.....	.....	.....	25	122

BLOWING ENGINEERS.

1912.									
Eastern.....	6	16	82.5	.....	.....	.....	.....	2	14
Pittsburgh.....	9	46	80.3	.....	6	.....	.....	.....	40
Great Lakes and Middle West...	10	54	80.0	.....	.....	.....	.....	18	36
Southern.....	10	26	81.2	.....	.....	.....	.....	6	20
Total.....	35	142	80.6	.....	6	.....	.....	26	110
1913.									
Eastern.....	6	16	82.5	.....	.....	.....	.....	2	14
Pittsburgh.....	9	44	84.0	.....	.....	.....	.....	.....	44
Great Lakes and Middle West...	10	60	79.6	.....	.....	.....	.....	22	38
Southern.....	10	28	81.4	.....	.....	.....	.....	6	22
Total.....	35	148	81.6	.....	.....	.....	.....	30	118

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BLAST FURNACES—Continued.

BLOWING ENGINEERS' ASSISTANTS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—					
				Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84
1912.									
Eastern.....	3	6	80.0					2	4
Pittsburgh.....	8	69	80.3		9				60
Great Lakes and Middle West...	4	17	80.5					5	12
Southern.....	3	14	84.0						14
Total.....	18	106	80.8		9			7	90
1913.									
Eastern.....	3	6	80.0					2	4
Pittsburgh.....	8	58	84.0						58
Great Lakes and Middle West...	4	16	81.0					4	12
Southern.....	3	14	84.0						14
Total.....	18	94	83.2					6	88

STOVE TENDERS.

1912.									
Eastern.....	6	20	81.6					4	16
Pittsburgh.....	9	92	78.5		18				74
Great Lakes and Middle West...	10	64	78.8					28	36
Southern.....	11	38	82.1					6	32
Total.....	36	214	79.5		18			38	158
1913.									
Eastern.....	6	21	81.7					4	17
Pittsburgh.....	9	86	84.0						86
Great Lakes and Middle West...	10	67	78.6					30	37
Southern.....	11	39	82.5					5	34
Total.....	36	213	81.8					39	174

KEEPERS.

1912.									
Eastern.....	6	20	81.6					4	16
Pittsburgh.....	9	92	78.5		18				74
Great Lakes and Middle West...	10	68	79.1					28	40
Southern.....	11	38	82.1					6	32
Total.....	36	218	79.6		18			38	162
1913.									
Eastern.....	6	22	81.8					4	18
Pittsburgh.....	9	86	84.0						86
Great Lakes and Middle West...	10	74	79.1					30	44
Southern.....	11	42	82.3					6	36
Total.....	36	224	81.9					40	184

KEEPERS' HELPERS.

1912.									
Eastern.....	6	120	82.8					12	108
Pittsburgh.....	9	318	78.2		66				252
Great Lakes and Middle West...	10	274	80.3					84	190
Southern.....	11	158	82.0					26	132
Total.....	36	870	80.2		66			122	682
1913.									
Eastern.....	6	130	82.9					12	118
Pittsburgh.....	9	292	84.0						292
Great Lakes and Middle West...	10	300	80.4					90	210
Southern.....	11	180	81.7					34	146
Total.....	36	902	82.2					136	766

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BLAST FURNACES—
Concluded.

IRON HANDLERS AND LOADERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—					
				Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84
1912.									
Eastern.....	4	62	79.3				16		46
Pittsburgh.....	2	32	77.1			4			10
Great Lakes and Middle West.....	3	108	77.0				54		54
Southern.....	10	204	68.5			20	128	36	20
Total.....	19	406	73.1			24	198	36	130
1913.									
Eastern.....	4	58	77.2		10		8		40
Pittsburgh.....	2	29	78.8			1			10
Great Lakes and Middle West.....	3	128	76.2				71		57
Southern.....	10	231	68.4			34	132	41	24
Total.....	19	446	72.5		10	35	211	41	131

PIG-MACHINE MEN.

1912.									
Eastern.....	1	17	72.0					17	
Pittsburgh.....	7	153	84.0						153
Great Lakes and Middle West.....	7	85	79.5			1		30	54
Southern.....	2	20	84.0						20
Total.....	17	275	81.9			1		47	227
1913.									
Eastern.....	1	18	72.0					18	
Pittsburgh.....	7	158	84.0						158
Great Lakes and Middle West.....	7	94	79.7			1		32	61
Southern.....	2	20	84.0						20
Total.....	17	290	81.8			1		50	239

CINDER MEN.

1912.									
Eastern.....	6	26	81.6				1	4	21
Pittsburgh.....	7	119	73.1		38	9		1	71
Great Lakes and Middle West.....	10	143	79.1			1	28	25	88
Southern.....	10	68	79.0			4	7	12	45
Total.....	33	356	77.3		38	14	36	42	225
1913.									
Eastern.....	6	28	82.0					4	23
Pittsburgh.....	7	136	81.0				22	1	89
Great Lakes and Middle West.....	10	136	79.1			1	17	34	83
Southern.....	10	80	78.6			4	8	19	49
Total.....	33	380	79.9			5	47	58	244

LABORERS.

1912.									
Eastern.....	6	100	68.6			38	37		14
Pittsburgh.....	9	311	76.7			25	81	27	155
Great Lakes and Middle West.....	9	326	72.3			113	11	74	115
Southern.....	11	312	71.8			31	189	8	38
Total.....	35	1,049	73.1			207	318	109	322
1913.									
Eastern.....	6	157	68.6			70	43		30
Pittsburgh.....	9	365	77.8			13	108	34	205
Great Lakes and Middle West.....	9	431	72.6		2	105	105	62	122
Southern.....	11	320	68.1			91	182	29	18
Total.....	35	1,273	72.5		2	279	438	125	1375

¹ Including 1 employee whose full-time hours per week were 91.

BESSEMER CONVERTERS.

SUMMARY.

Summary figures relating to the Bessemer converting department are given with figures for other departments of the iron and steel industry in the introductory summary on pages 5 to 15. An explanation of the scope of the investigation and of the methods employed is given on pages 15 to 23.

Briefly stated, in 1913 the average rate of wages or earnings per hour of employees in the principal productive occupations in the Bessemer converting department was from 11.4 per cent to 28.2 per cent higher than in any one of the six years preceding, and despite the fact that the average full-time hours per week were 2.8 per cent lower than at the beginning of the seven-year period, this very marked increase in rates of wages was so reflected in full-time weekly earnings that the average earnings in 1913 were from 10.9 per cent to 26.4 per cent higher than in any one of the six years preceding.

The most significant facts concerning the several occupations of the Bessemer converting department appearing in this report are summarized in the table following. Data are presented for the years 1907 to 1913, inclusive, the figures for each group of years being for identical plants. The data for 1913 represent 1,661 Bessemer converter employees in the 19 occupations covered, and were obtained from 10 plants, having 26 converters in operation.

Referring to the first occupation presented, laborers, direct comparison can be made of data for 9 identical plants from 1907 to 1910, for 10 from 1910 to 1912, and for another group of 10 identical plants for 1912 and 1913. The first line of the table is analyzed as follows: In 1907 the 9 Bessemer plants from which reports were obtained employed 801 laborers, whose average full-time hours of work were 78 per week. For 3.2 per cent of the 801 laborers the full-time hours per week were over 48 and under 72; for 21.5 per cent, 72; for 33.2 per cent, over 72 and under 84; and for 42.1 per cent, 84 hours. The average rate of wages or earnings per hour of laborers in the year considered (1907) was \$0.155. Of the total number 71.3 per cent received 14 and under 16 cents per hour, and 28.7 per cent, 16 and under 18 cents per hour. The average full-

time weekly earnings were \$12.12. The other lines of the table may be read in the same manner.

Referring to the last column of the table it is seen that in 9 identical plants the average full-time weekly earnings of laborers was \$12.12 in 1907. In the next two years there were drops to \$11.80 and \$11.62, respectively, and in 1910 an advance to \$12.69. In the 10 identical plants reporting for 1910, 1911, and 1912 the average for 1910 was also \$12.69. There was a decrease to \$12.39 in 1911 and an increase to \$12.64 in 1912. Despite the fact that the two reports for 1910 are the same, it would not be an accurate comparison to state that earnings increased from \$12.12 in 1907 to \$12.64 in 1912, because one more plant is included in the 1912 average than in that for 1907. In the second group of 10 plants the full-time weekly earnings were \$12.68 in 1912 and \$14.38 in 1913. The other items in the table should be studied with like care.

Comparing the average full-time weekly earnings for 1913 of the several occupations, it is seen that the lowest average was that of laborers, which was \$14.38. The averages of 14 of the 19 occupations reported for this department, however, were from 40 per cent to nearly 200 per cent higher, the highest being that of vessel men, which was \$41.09 in 1913.

In this table occupations are grouped according to the wages paid, beginning with the lowest-paid group, and the occupations in each group are presented in alphabetical order.

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS, IN EACH OF THE PRINCIPAL OCCUPATIONS, 1907 TO 1913—BESSEMER CONVERTERS.

[The figures for each group of years are for identical plants.]

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Percent of employees whose earnings per hour were—					Average full-time weekly earnings.
				48 and under.	Over 48 and under 72	72	Over 72 and under 84	84		12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	
Laborers:															
9 plants.....	1907	801	78.0	.....	3.2	21.5	33.2	42.1	\$0.155	.....	71.3	28.7	.....	\$12.12	
	1908	425	76.2	.....	13.6	30.8	21.9	33.6	.155	.....	76.9	23.1	.....	11.80	
	1909	564	76.9	.....	6.1	25.0	39.2	29.6	.151	16.3	54.8	28.9	.....	11.62	
	1910	748	78.1	.....	4.6	32.4	20.3	42.6	.163	.....	27.3	72.7	.....	12.69	
10 plants.....	1910	786	77.8	.....	4.6	35.0	19.6	40.8	.163	.....	26.0	74.0	.....	12.69	
	1911	593	74.6	.....	8.8	42.7	36.3	12.3	.166	.....	17.7	82.3	.....	12.39	
	1912	626	75.7	.....	7.5	38.7	27.8	26.0	.167	.....	7.8	92.2	.....	12.64	
10 plants.....	1912	620	75.8	.....	7.7	38.4	26.5	27.4	.167	.....	6.8	93.2	.....	12.68	
	1913	681	75.1	.....	6.8	39.6	33.3	20.3	.192	.....	19.8	52.0	28.2	14.38	

¹ Including 7.2 per cent whose full-time hours per week were 85.

² Including 6.9 per cent whose full-time hours per week were 85.

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS, IN EACH OF THE PRINCIPAL OCCUPATIONS, 1907 TO 1913—BESSEMER CONVERTERS—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—				Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.	
				48 and under.	Over 48 and under 72	72	Over 72 and under 84		84	Under 16 cts.	16 and under 20 cts.	20 and under 30 cts.	30 and under 40 cts.		40 cts. and over.
Bottom makers' helpers:															
9 plants.....	1907	30	73.5	.....	26.7	46.7	26.7	.....	\$0.257	.....	26.7	46.7	13.3	13.3	\$18.82
	1908	27	72.2	.....	25.9	66.7	7.4	.....	.204	14.8	37.0	33.3	14.8	.....	14.75
	1909	29	73.1	.....	27.6	51.7	20.7	.....	.234	6.9	34.5	37.9	13.8	6.9	17.08
	1910	30	72.9	.....	.....	86.7	6.7	6.7	.239	.....	36.7	50.0	13.3	.....	17.38
10 plants.....	1910	34	72.8	.....	.....	88.2	5.9	5.9	.235	.....	38.3	50.0	11.8	.....	17.10
	1911	31	72.2	.....	32.3	64.5	.....	3.2	.234	3.2	38.8	38.7	19.4	.....	16.88
	1912	31	72.2	.....	32.3	61.3	6.5	.....	.238	6.5	35.5	45.2	6.5	6.5	17.18
10 plants.....	1912	39	72.4	.....	30.8	59.0	10.3	.....	.224	5.1	48.7	35.9	5.1	5.1	16.19
	1913	40	73.1	.....	30.0	45.0	20.0	5.0	.255	.....	25.0	50.0	15.0	10.0	18.59
Cinder pitmen:															
8 plants.....	1907	118	67.9	20.3	37.3	32.2	3.4	6.8	.206	30.5	45.8	13.6	5.1	5.1	13.32
	1908	71	65.9	29.6	16.9	39.4	14.1	.....	.173	57.7	33.8	8.5	.....	.....	11.27
	1909	92	68.4	22.8	25.0	32.6	10.9	8.7	.178	37.0	51.1	5.4	6.5	.....	11.88
	1910	79	67.3	7.6	19.0	50.6	12.7	10.1	.213	10.1	58.2	24.1	7.6	.....	13.77
9 plants.....	1910	85	67.6	7.1	17.6	54.1	11.8	9.4	.211	9.4	61.2	22.3	7.1	.....	13.69
	1911	62	69.8	9.7	25.8	54.8	9.7	.....	.199	3.2	87.1	.....	9.7	.....	13.55
	1912	87	67.2	24.1	.....	41.4	34.5	.....	.204	.....	75.8	17.2	6.9	.....	13.27
9 plants.....	1912	99	68.1	21.2	.....	46.5	30.3	2.0	.200	.....	76.7	17.2	6.1	.....	13.23
	1913	113	67.3	23.9	.....	42.5	31.9	1.8	.238	.....	10.6	76.1	8.0	5.3	15.56
Ladle liners' helpers:															
9 plants.....	1907	39	68.2	15.4	28.2	51.3	5.1	.....	.255	10.3	30.8	38.5	7.7	12.8	16.65
	1908	31	67.5	19.4	35.5	38.7	.....	6.5	.209	22.6	32.3	35.5	6.5	3.2	13.79
	1909	39	68.5	15.4	28.2	46.2	10.3	.....	.230	10.3	38.4	38.4	.....	12.8	15.26
	1910	37	68.5	16.2	2.7	64.9	10.8	5.4	.239	.....	37.8	48.6	.....	13.5	15.83
10 plants.....	1910	39	68.7	15.4	2.6	66.7	10.3	5.1	.236	.....	41.1	46.2	.....	12.8	15.73
	1911	34	69.1	8.8	44.1	47.1	.....	.....	.233	5.9	41.2	38.3	2.9	11.8	15.75
	1912	34	69.6	8.8	44.1	41.2	5.9	.....	.228	5.9	41.2	38.3	5.9	8.8	15.43
	1913	34	69.8	8.8	44.1	29.4	17.6	.....	.255	.....	23.5	55.8	5.9	14.7	17.36
Stockers:															
9 plants.....	1907	371	62.5	46.1	12.4	7.3	22.4	11.9	.246	17.0	27.7	27.0	21.8	6.5	14.27
	1908	260	58.3	57.7	10.7	10.4	9.6	11.5	.275	14.3	21.2	26.2	23.1	15.4	14.93
	1909	266	63.6	42.9	7.5	12.4	22.6	14.7	.264	26.7	19.5	11.6	20.3	21.8	15.31
	1910	350	64.9	32.6	16.0	19.4	5.7	26.3	.266	2.9	37.5	25.4	19.7	14.6	16.04
10 plants.....	1910	352	64.9	32.4	16.5	19.3	5.7	26.1	.266	2.8	37.2	25.9	19.6	14.5	16.03
	1911	241	61.7	46.1	7.0	23.7	10.8	12.4	.233	5.0	39.8	40.3	10.0	5.0	13.60
	1912	268	62.0	45.9	14.9	7.8	17.9	13.4	.312	.....	37.7	13.5	20.5	28.3	17.66
10 plants.....	1912	280	62.1	44.6	16.3	8.2	15.0	15.7	.306	.....	41.1	12.1	19.6	27.2	17.38
	1913	337	62.5	22.8	30.6	27.3	13.4	5.9	.331	.....	25.8	27.3	10.7	36.3	19.05
										Under 20 cts.	20 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	
Cupola tappers:															
8 plants.....	1907	50	60.5	54.0	8.0	18.0	12.0	8.0	.379	2.0	12.0	34.0	52.0	.....	22.16
	1908	43	59.3	55.8	4.7	30.2	4.7	4.7	.335	2.3	23.3	62.8	11.6	.....	19.67
	1909	43	61.5	55.8	.....	11.6	18.6	14.0	.340	2.3	46.5	7.0	44.2	.....	19.74
	1910	56	58.9	64.3	.....	12.5	14.3	8.9	.362	1.8	34.0	32.1	26.8	5.4	20.30
	1911	41	59.3	58.5	.....	26.8	4.9	9.8	.318	2.4	34.2	63.4	.....	.....	18.19
9 plants.....	1911	45	60.4	53.3	.....	33.3	4.4	8.9	.314	2.2	40.0	57.8	.....	.....	18.36
	1912	48	60.6	56.3	4.2	10.4	20.8	8.3	.369	2.1	41.7	2.1	54.2	.....	20.94
	1913	69	59.5	30.4	31.9	23.2	14.5	.....	.393	.....	31.9	11.6	39.1	17.4	22.25

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS, IN EACH OF THE PRINCIPAL OCCUPATIONS, 1907 TO 1913—BESSEMER CONVERTERS—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—				Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				48 and under.	Over 48 and under 72.	72	Over 72 and under 84.	84	Under 20 cts.	20 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	
Ingot strippers:														
9 plants.....	1907	29	67.4	31.0	13.8	20.7	20.7	13.8	\$0.310	62.1	17.2	13.8	6.9	\$19.60
	1908	28	68.4	21.4	21.4	21.4	35.7	.....	.238	78.6	7.1	.....	.....	16.34
	1909	28	70.2	21.4	14.3	21.4	21.4	21.4	.264	78.6	21.4	.....	.....	18.17
	1910	29	67.9	10.3	20.7	27.6	20.7	20.7	.307	69.0	.....	31.0	.....	19.85
10 plants.....	1910	31	68.1	9.7	19.4	32.3	19.4	19.4	.303	71.0	.....	29.0	.....	19.69
	1911	27	70.4	.....	33.3	44.4	22.2	.....	.282	66.6	.....	18.5	.....	19.26
	1912	28	68.8	10.7	25.0	28.6	35.7	.....	.320	71.5	7.1	.....	21.4	20.80
	1913	28	69.9	.....	28.5	21.4	50.0	.....	.334	57.1	14.3	28.6	.....	22.81
Mold cappers:														
8 plants.....	1907	48	54.5	75.0	.....	16.7	8.3	.....	.347	8.4	16.6	56.3	6.3	12.5
	1908	39	53.7	76.9	.....	17.9	5.1	.....	.196	74.4	20.5	5.1	.....	10.57
	1909	43	54.0	76.7	.....	14.0	9.3	.....	.271	14.1	60.5	11.6	.....	14.26
	1910	46	55.0	26.1	52.2	8.7	4.3	8.7	.326	17.4	10.8	58.7	.....	13.0
9 plants.....	1910	52	57.0	23.1	46.2	19.2	3.8	7.7	.314	15.4	21.2	61.9	.....	11.5
	1911	37	64.2	32.4	.....	62.2	5.4	.....	.282	24.3	43.2	16.2	16.2	17.36
	1912	44	59.5	54.5	.....	31.8	13.6	.....	.324	18.2	27.2	36.4	4.5	13.6
10 plants.....	1912	52	61.5	46.2	11.5	26.9	15.4	.....	.301	26.9	26.9	30.8	3.8	11.5
	1913	61	59.5	54.1	9.8	23.0	13.1	.....	.360	6.6	29.5	21.3	27.9	14.8
Stopper makers:														
9 plants.....	1907	10	72.8	.....	20.0	40.0	30.0	10.0	.316	10.0	60.0	.....	30.0	23.01
	1908	9	72.9	.....	22.2	44.4	11.1	22.2	.223	33.3	55.5	11.1	.....	16.10
	1909	9	71.6	.....	44.4	22.2	11.1	22.2	.270	22.2	44.4	22.2	11.1	19.22
	1910	11	73.1	.....	9.1	72.7	.....	18.2	.263	9.1	63.7	27.3	.....	19.33
10 plants.....	1910	12	73.0	.....	8.3	75.0	.....	16.7	.260	8.3	66.7	25.0	.....	19.14
	1911	10	72.0	.....	20.0	60.0	.....	20.0	.273	20.0	40.0	40.0	.....	19.53
	1912	10	70.8	.....	30.0	50.0	.....	20.0	.272	20.0	50.0	20.0	10.0	18.91
	1913	10	70.6	.....	20.0	80.0	.....	.....	.302	.....	60.0	30.0	10.0	21.25
										Un- der 25 cts.	25 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and over.
Bottom makers:														
9 plants.....	1907	17	73.4	.....	11.8	64.7	23.5	.....	.386	.....	64.7	23.5	.....	11.8
	1908	17	72.4	.....	23.5	64.7	11.8	.....	.283	47.1	29.4	23.5	.....	20.45
	1909	16	73.1	.....	12.5	68.8	18.8	.....	.351	6.3	56.3	12.5	25.0	25.57
	1910	17	73.5	.....	.....	76.5	11.8	11.8	.355	11.8	64.7	23.5	.....	25.92
10 plants.....	1910	19	73.4	.....	.....	78.9	10.5	10.5	.346	10.5	68.4	21.1	.....	25.28
	1911	19	71.8	.....	21.1	78.9	.....	.....	.337	10.5	68.4	10.5	10.5	24.18
	1912	20	72.5	.....	20.0	70.0	10.0	.....	.345	10.0	70.0	10.0	10.0	24.96
	1913	20	73.8	.....	20.0	50.0	20.0	10.0	.384	20.0	40.0	30.0	10.0	23.05
Cupola melters:														
7 plants.....	1907	15	65.2	40.0	13.3	20.0	13.3	13.3	.509	6.7	26.7	.....	33.3	31.67
	1908	15	64.7	40.0	13.3	20.0	13.3	13.3	.350	13.3	53.3	30.0	13.3	22.20
	1909	15	64.7	40.0	13.3	20.0	13.3	13.3	.419	20.0	13.3	53.3	33.3	26.09
	1910	16	60.6	37.5	18.8	18.8	12.5	12.5	.447	6.3	43.8	.....	31.3	25.85
	1911	15	64.3	40.0	13.3	20.0	13.3	13.3	.390	6.7	40.0	40.0	13.3	24.45
8 plants.....	1911	17	65.2	35.3	11.8	29.4	11.8	11.8	.386	5.9	47.1	35.3	11.8	24.62
	1912	18	61.6	50.0	11.1	16.7	11.1	11.1	.409	5.6	44.4	22.2	27.8	23.82
	1913	19	62.4	31.6	26.3	21.1	10.5	10.5	.477	.....	31.6	10.5	42.1	15.8
Ladle liners:														
9 plants.....	1907	21	65.1	28.6	14.3	47.6	9.5	.....	.454	9.5	38.1	19.0	9.5	23.8
	1908	21	65.6	28.6	23.8	38.1	.....	9.5	.306	33.3	42.9	14.3	9.5	19.78
	1909	21	65.1	28.6	14.3	47.6	9.5	.....	.392	23.8	23.8	83.8	1.....	25.22
	1910	23	66.3	26.1	4.3	52.2	8.7	8.7	.383	17.4	39.1	21.7	21.7	25.20
10 plants.....	1910	25	66.8	24.0	4.0	56.0	8.0	8.0	.378	16.0	44.0	20.0	20.0	25.05
	1911	24	68.3	12.5	20.9	66.7	.....	.....	.342	25.0	33.4	25.0	16.7	22.85
	1912	24	68.9	12.5	20.9	58.3	8.3	.....	.369	16.7	50.0	20.8	12.5	24.95

¹ Including 6.7 per cent whose full-time hours per week were 91.

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS, IN EACH OF THE PRINCIPAL OCCUPATIONS, 1907 TO 1913—BESSEMER CONVERTERS—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				48 and under.	Over 48 and under 72	72	Over 72 and under 84	84		Under 25 cts.	25 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 cts. and over.	
Ladle liners—Contd. 10 plants.....	1912	22	68.6	13.6	22.7	54.5	9.1	.....	\$0.384	9.1	54.5	22.7	13.6	.....	\$25.84
	1913	22	68.7	13.6	22.7	45.5	18.2	.....	.418	9.1	27.3	31.8	31.8	.....	28.22
Regulators, first: 9 plants.....	1907	26	62.3	46.2	7.7	30.8	7.7	7.7	.437	7.7	42.3	34.6	.....	15.4	27.28
	1908	25	64.7	36.0	16.0	32.0	8.0	8.0	.266	56.0	28.0	16.0	.....	.....	17.78
	1909	25	64.8	36.0	8.0	40.0	8.0	8.0	.344	32.0	36.0	8.0	24.0	.....	22.97
	1910	29	61.4	20.7	31.0	34.5	.....	13.8	.414	6.9	37.9	34.5	13.8	6.9	25.60
10 plants.....	1910	31	62.1	19.4	29.0	38.7	.....	12.9	.408	6.5	41.9	32.3	12.9	6.5	25.45
	1911	24	66.8	25.0	16.7	50.0	.....	8.3	.377	16.6	37.5	37.5	8.3	.....	24.79
	1912	25	64.7	36.0	16.0	32.0	8.0	8.0	.411	8.0	36.0	40.0	16.0	.....	26.24
10 plants.....	1912	24	68.5	25.0	8.3	25.0	33.3	8.3	.399	8.3	45.8	37.5	8.3	.....	27.16
	1913	24	67.6	25.0	8.3	33.3	33.3	.....	.451	.....	25.0	37.5	29.2	8.3	30.28
Regulators, second: 6 plants.....	1907	18	65.3	33.3	11.1	33.3	22.2	.....	.427	.....	11.1	77.8	11.1	.....	27.81
	1908	14	73.5	.....	28.6	42.9	28.6	.....	.269	57.1	35.7	7.1	.....	.....	19.64
	1909	14	73.8	.....	14.3	57.1	28.6	.....	.365	7.1	50.0	42.9	.....	.....	26.80
	1910	18	66.7	33.3	.....	44.4	.....	22.2	.408	.....	38.9	50.0	11.1	.....	26.96
8 plants.....	1910	22	67.5	27.3	9.1	45.5	.....	18.2	.378	9.1	40.9	40.9	9.1	.....	25.52
	1911	21	65.0	28.6	19.0	52.4	.....	.....	.333	19.1	47.7	33.3	.....	.....	21.41
	1912	23	63.5	39.1	17.4	26.1	17.4	.....	.367	.....	32.6	.....	17.4	.....	23.36
9 plants.....	1912	24	67.0	25.0	16.7	33.3	25.0	.....	.381	.....	66.7	25.0	8.3	.....	25.63
	1913	24	67.0	25.0	16.7	33.3	25.0	.....	.411	16.7	25.0	37.5	12.5	8.3	27.56
Vessel men's helpers: 9 plants.....	1907	47	57.0	51.1	19.1	8.5	17.0	4.3	.566	.....	14.9	25.5	12.8	46.8	31.84
	1908	45	59.5	40.0	20.0	17.8	17.8	4.4	.376	26.6	28.9	26.7	13.3	4.4	21.65
	1909	45	59.6	40.0	20.0	17.8	17.8	4.4	.484	4.4	22.2	23.7	17.8	17.8	28.24
	1910	49	55.3	49.0	30.6	8.2	.....	12.2	.524	.....	16.3	51.0	4.1	28.5	28.86
10 plants.....	1910	53	56.5	45.3	28.3	15.1	.....	11.3	.506	3.8	18.9	47.2	3.8	26.4	28.22
	1911	51	57.6	47.1	17.6	23.5	7.8	3.9	.421	11.7	27.4	27.5	27.5	5.9	23.48
	1912	53	55.9	56.6	17.0	7.5	15.1	3.8	.470	.....	37.8	20.8	24.5	16.9	25.47
10 plants.....	1912	53	56.5	45.3	28.3	7.5	15.1	3.8	.467	.....	37.8	26.4	18.9	16.9	25.70
	1913	53	56.0	45.3	35.8	11.3	7.5	.....	.528	.....	17.0	34.0	17.0	32.1	28.87
											Under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Blowers: 9 plants.....	1907	20	65.4	30.0	10.0	50.0	10.0	.....	.619	20.0	20.0	.....	15.0	45.0	39.55
	1908	19	68.8	15.8	10.5	63.2	10.5	.....	.466	36.8	42.1	10.5	.....	10.5	32.41
	1909	19	68.8	15.8	10.5	63.2	10.5	.....	.496	21.1	47.4	21.1	.....	10.5	33.29
	1910	20	69.8	15.0	.....	60.0	15.0	10.0	.536	10.0	45.0	20.0	15.0	10.0	37.00
	1911	18	71.9	.....	11.1	88.9	.....	.....	.498	11.1	55.6	22.2	.....	11.1	35.84
10 plants.....	1911	20	72.0	.....	.....	90.0	.....	.....	.493	10.0	60.0	20.0	.....	10.0	35.48
	1912	21	69.1	14.3	9.5	66.7	9.5	.....	.529	.....	57.1	23.8	9.5	9.5	36.36
	1913	23	63.2	26.1	21.7	43.5	8.7	.....	.600	.....	34.8	21.7	21.7	21.7	37.33
Steel pourers: 9 plants.....	1907	29	55.4	72.4	.....	13.8	13.8	.....	.693	6.9	17.2	10.3	13.8	51.7	36.39
	1908	28	57.4	64.3	.....	21.4	14.3	.....	.439	46.5	3.6	32.1	17.9	.....	24.25
	1909	28	57.5	64.3	.....	21.4	14.3	.....	.576	39.2	.....	.....	17.9	42.9	31.61
	1910	30	54.5	70.0	10.0	6.7	.....	13.3	.630	6.7	23.3	20.0	10.0	40.0	32.94
10 plants.....	1910	32	55.6	65.6	9.4	12.5	.....	12.5	.617	6.3	28.1	18.8	9.4	37.5	32.74
	1911	30	55.1	70.0	.....	30.0	.....	.....	.535	23.4	10.0	26.7	30.0	10.0	27.91
	1912	32	54.7	75.0	.....	12.5	12.5	.....	.578	6.3	34.4	31.3	3.1	25.0	30.57
10 plants.....	1912	34	55.7	70.6	.....	17.6	11.8	.....	.570	5.9	38.2	22.9	4.2	23.5	30.65
	1913	34	55.7	70.6	.....	17.6	11.8	.....	.633	17.6	2.9	32.4	8.8	38.2	33.94

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS, IN EACH OF THE PRINCIPAL OCCUPATIONS, 1907 TO 1913—BESSEMER CONVERTERS—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Percent of employees whose earnings per hour were—					Average full-time weekly earnings.
				48 and under.	Over 48 and under 72	72	Over 72 and under 84	84		Under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Stopper setters:															
9 plants.....	1907	45	51.5	86.7	.....	8.9	4.4	.....	\$0.630	26.8	15.6	13.3	13.3	31.1	\$31.79
	1908	40	54.3	75.0	.....	20.0	5.0	.....	.343	67.5	17.5	.....	5.0	10.0	18.50
	1909	34	55.4	70.6	.....	23.5	5.9	.....	.552	35.4	5.9	14.7	8.8	35.3	29.36
	1910	37	51.5	73.0	16.2	5.4	.....	5.4	.589	29.7	16.2	8.1	13.5	32.4	30.08
10 plants.....	1910	39	52.6	69.2	15.4	10.3	.....	5.1	.577	33.3	15.4	7.7	12.8	30.8	29.81
	1911	39	55.3	69.2	.....	30.8	.....	.....	.498	43.6	17.9	7.7	.....	30.8	26.08
	1912	42	51.7	85.7	.....	9.5	4.8	.....	.496	33.3	35.7	7.1	9.5	14.3	25.36
	1913	43	51.6	86.0	.....	9.3	4.7	.....	.558	18.6	27.9	4.7	20.9	27.9	28.37
Vessel men:															
9 plants.....	1907	23	58.5	52.2	13.0	8.7	17.4	8.7	.793	8.7	.....	8.7	21.7	60.9	44.58
	1908	22	61.1	40.9	13.6	18.2	18.2	9.1	.528	40.9	9.1	.....	31.8	18.2	31.27
	1909	22	61.2	40.9	13.6	18.2	18.2	9.1	.630	18.2	22.7	9.1	13.6	36.4	37.19
	1910	24	56.6	50.0	25.0	8.3	.....	16.7	.708	8.3	8.3	.....	50.0	33.3	38.88
10 plants.....	1910	26	57.8	46.2	23.1	15.4	.....	15.4	.685	7.7	15.4	.....	46.2	30.8	38.18
	1911	25	59.1	48.0	12.0	24.0	8.0	8.0	.590	24.0	8.0	16.0	24.0	28.0	32.45
	1912	26	57.3	57.7	11.5	7.7	15.4	7.7	.703	7.7	19.2	15.4	11.5	46.2	38.32
10 plants.....	1912	26	58.3	34.6	34.6	7.7	15.4	7.7	.688	7.7	19.2	15.4	11.5	46.2	38.60
	1913	26	57.4	34.6	34.6	15.4	15.4	.....	.744	.....	15.4	7.7	30.8	46.2	41.09

Owing to changes in the number of plants reported from year to year, and the consequent differences in the averages for the overlapping year in two groups, it is difficult to make a comparison of the actual data over a period of several years which will give an accurate measure of the changes throughout the period. To aid in making such a comparison, relative or index numbers have been computed from the averages of the preceding table, for full-time hours per week, rates of wages per hour, and full-time weekly earnings, for each occupation from 1907 to 1913, inclusive. Such figures appear in the table following. These relative or index numbers are simply percentages for which the data for 1913 are taken as the base, or 100 per cent. The relative for each year is the per cent that the average for that year is of the average for 1913. For example, the relative full-time weekly earnings of stockers in 1907 were 73.7, as compared with 100 in 1913; that is, the full-time weekly earnings of stockers in 1907 were 73.7 per cent of the full-time weekly earnings in this occupation in 1913. The method of computing relative numbers is explained on pages 21 to 23.

The table also shows for each occupation the per cent of increase or decrease in full-time hours per week, rates of wages per hour, and full-time weekly earnings in 1913 as compared with each specified year preceding. Thus the full-time weekly earnings of stockers in 1913 were 35.7 per cent higher than in 1907, 29.7 per cent higher than in 1908, 26.6 per cent higher than in 1909, 20.8 per cent higher than in 1910, 42.2 per cent higher than in 1911, and 9.6 per cent higher than in 1912.

In other columns of the table is shown the per cent of change in each year as compared with the year immediately preceding. Thus the full-time weekly earnings of stockers in 1908 were 4.6 per cent higher than in 1907, 2.5 per cent higher in 1909 than in 1908, 4.8 per cent higher in 1910 than in 1909, 15.1 per cent lower in 1911 than in 1910, 29.7 per cent higher in 1912 than in 1911, and 9.6 per cent higher in 1913 than in 1912. The other occupations and items of the table can be studied in like manner. The percentages of increase and decrease are computed from the relative numbers.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—BESSEMER CONVERTERS.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Stockers:									
1907.....	100.2	- 0.2	.....	72.9	+37.2	.....	73.7	+35.7	.....
1908.....	93.4	+ 7.1	- 6.8	81.5	+22.7	+11.8	77.1	+29.7	+ 4.6
1909.....	101.9	- 1.9	+ 9.1	78.2	+27.9	- 4.0	79.0	+26.6	+ 2.5
1910.....	104.0	- 3.8	+ 2.1	78.8	+26.9	+ 8	82.8	+20.8	+ 4.8
1911.....	98.9	+ 1.1	- 4.9	69.0	+44.9	-12.4	70.3	+42.2	-15.1
1912.....	99.4	+ 6	+ .5	92.4	+ 8.2	+33.9	91.2	+ 9.6	+28.7
1913.....	100.0	.....	+ .6	100.0	.....	+ 8.2	100.0	.....	+ 9.6
Cupola melters:									
1907.....	105.9	- 5.6	.....	105.6	- 5.3	.....	113.0	-11.5	.....
1908.....	105.1	- 4.9	- .8	72.6	+37.7	-31.3	79.2	+26.3	-29.9
1909.....	105.1	- 4.9	(¹)	86.9	+15.1	+19.7	93.1	+ 7.4	+17.6
1910.....	98.5	+ 1.5	- 6.3	92.7	+ 7.9	+ 6.7	92.2	+ 8.5	- 1.0
1911.....	104.5	- 4.3	+ 6.1	80.9	+23.6	-12.7	87.2	+14.7	- 5.4
1912.....	98.7	+ 1.3	- 5.6	85.7	+16.7	+ 5.9	84.4	+18.5	- 3.2
1913.....	100.0	.....	+ 1.3	100.0	.....	+16.7	100.0	.....	+18.5
Cupola tappers:									
1907.....	103.6	- 3.5	.....	95.2	+ 5.0	.....	100.5	- .5	.....
1908.....	101.5	- 1.5	- 2.0	84.2	+18.8	-11.6	89.2	+12.1	-11.2
1909.....	105.3	- 5.0	+ 3.7	85.4	+17.1	+ 1.4	89.5	+11.7	+ 3
1910.....	100.8	- .8	- 4.3	91.0	+ 9.9	+ 6.6	92.1	+ 8.6	+ 2.9
1911.....	101.5	- 1.5	+ .7	79.9	+25.2	-12.2	82.5	+21.2	-10.4
1912.....	101.8	- 1.8	+ .3	93.9	+ 6.5	+17.5	94.1	+ 6.3	+14.1
1913.....	100.0	.....	- 1.8	100.0	.....	+ 6.5	100.0	.....	+ 6.3
Blowers:									
1907.....	103.6	- 3.5	.....	102.1	- 2.1	.....	104.9	- 4.7	.....
1908.....	109.0	- 8.3	+ 5.2	76.9	+30.0	-24.7	85.9	+16.4	-18.1
1909.....	109.0	- 8.3	(¹)	80.2	+24.7	+ 4.3	88.3	+13.3	+ 2.8
1910.....	110.6	- 9.6	+ 1.5	88.4	+13.1	+10.2	98.1	+ 1.9	+11.1
1911.....	113.9	-12.2	+ 3.0	82.2	+21.7	- 7.0	95.0	+ 5.3	- 3.2
1912.....	109.3	- 8.5	- 4.0	88.2	+13.4	+ 7.3	97.4	+ 2.7	+ 2.5
1913.....	100.0	.....	- 8.5	100.0	.....	+13.4	100.0	.....	+ 2.7
Regulators, first:									
1907.....	98.7	+ 1.3	.....	92.7	+ 7.9	.....	92.7	+ 7.9	.....
1908.....	102.5	- 2.4	+ 3.9	56.4	+77.3	-39.2	60.4	+65.6	-34.8
1909.....	102.6	- 2.5	+ .1	73.0	+37.0	+29.4	78.1	+28.0	+29.3
1910.....	97.3	+ 2.8	- 5.2	87.8	+13.9	+20.3	87.0	+14.9	+11.4
1911.....	104.6	- 4.4	+ 7.5	81.2	+23.2	- 7.5	84.7	+18.1	- 2.6
1912.....	101.3	- 1.3	- 3.2	88.5	+13.0	+ 9.0	89.7	+11.5	+ 5.9
1913.....	100.0	.....	- 1.3	100.0	.....	+13.0	100.0	.....	+11.5

¹ No change.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—BESSEMER CONVERTERS—Continued.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Regulators, second:									
1907.....	104.1	— 3.9	.....	101.2	— 1.2	.....	104.8	— 4.6	.....
1908.....	117.1	—14.6	+12.5	63.7	+57.0	—37.1	74.0	+35.1	—29.4
1909.....	117.6	—15.0	+ .4	86.5	+15.6	+35.8	101.0	— 1.0	+36.5
1910.....	106.3	— 5.9	— 9.6	95.5	+ 4.7	+10.4	101.6	— 1.6	+ .6
1911.....	102.4	— 2.3	— 3.7	84.1	+18.9	—11.9	85.2	+17.4	—16.1
1912.....	100.0	(¹)	— 2.3	92.7	+ 7.9	+10.2	93.0	+ 7.5	+ 9.2
1913.....	100.0	.....	(¹)	100.0	.....	+ 7.9	100.0	.....	+ 7.5
Vessel men:									
1907.....	105.9	— 5.6	.....	100.9	— .9	.....	107.3	— 6.8	.....
1908.....	110.6	— 9.6	+ 4.4	67.2	+45.8	—33.4	75.3	+32.8	—29.8
1909.....	110.8	— 9.7	+ .2	80.2	+24.7	+19.3	89.5	+11.7	+18.9
1910.....	102.5	— 2.4	— 7.5	90.1	+11.0	+12.3	93.6	+ 6.8	+ 4.6
1911.....	104.8	— 4.6	+ 2.2	76.3	+31.1	—15.3	79.5	+25.8	—15.1
1912.....	101.6	— 1.6	— 3.1	92.5	+ 8.1	+21.2	93.9	+ 6.5	+18.1
1913.....	100.0	.....	— 1.6	100.0	.....	+ 8.1	100.0	.....	+ 6.5
Vessel men's helpers:									
1907.....	105.1	— 4.9	.....	102.9	— 2.8	.....	106.8	— 8.1	.....
1908.....	109.7	— 8.8	+ 4.4	65.3	+46.4	—33.6	74.0	+35.1	—32.0
1909.....	109.9	— 9.0	+ .2	88.0	+13.6	+28.8	96.5	+ 3.6	+30.4
1910.....	102.0	— 2.0	— 7.2	95.2	+ 5.0	+ 8.2	98.6	+ 1.4	+ 2.2
1911.....	104.0	— 3.8	+ 2.0	79.2	+26.3	—16.8	82.1	+21.8	—16.7
1912.....	100.9	— .9	— 3.0	88.4	+13.1	+11.6	89.4	+12.4	+ 8.4
1913.....	100.0	.....	— .9	100.0	.....	+13.1	100.0	.....	+12.4
Cinder pitmen:									
1907.....	102.7	— 2.6	.....	84.1	+18.9	.....	84.8	+17.9	.....
1908.....	99.7	+ .3	— 2.9	70.6	+41.6	—16.1	71.8	+39.3	—15.3
1909.....	103.5	— 3.4	+ 3.8	72.6	+37.7	+ 2.8	75.7	+32.1	+ 5.4
1910.....	101.8	— 1.8	— 1.6	85.9	+15.1	+10.7	87.7	+14.0	+15.9
1911.....	105.1	— 4.9	+ 3.2	82.0	+22.0	— 5.6	86.8	+15.2	— 1.0
1912.....	101.2	— 1.2	— 3.7	84.0	+19.0	+ 2.4	85.0	+17.6	— 2.1
1913.....	100.0	.....	— 1.2	100.0	.....	+19.0	100.0	.....	+17.6
Bottom makers:									
1907.....	99.3	+ .7	.....	98.0	+ 2.0	.....	97.7	+ 2.4	.....
1908.....	98.0	+ 2.0	— 1.3	71.8	+39.3	—26.7	71.1	+40.6	—27.2
1909.....	98.9	+ 1.1	+ .9	89.1	+12.2	+24.1	88.9	+12.5	+25.0
1910.....	99.5	+ .5	+ .6	90.1	+11.0	+ 1.1	90.1	+11.0	+ 1.3
1911.....	97.3	+ 2.8	— 2.2	87.8	+13.9	— 2.6	86.2	+16.0	— 4.3
1912.....	98.2	+ 1.8	+ .9	89.8	+11.4	+ 2.3	89.0	+12.4	+ 3.2
1913.....	100.0	.....	+ 1.8	100.0	.....	+11.4	100.0	.....	+12.4
Bottom makers' helpers:									
1907.....	100.7	— .7	.....	93.3	+ 7.2	.....	93.9	+ 6.5	.....
1908.....	98.9	+ 1.1	— 1.8	74.0	+35.1	—20.7	73.6	+35.9	—21.6
1909.....	100.1	— .1	+ 1.2	84.9	+17.8	+14.7	85.2	+17.4	+15.8
1910.....	99.9	+ .1	+ .2	86.7	+15.3	+ 2.1	86.7	+15.3	+ 1.8
1911.....	99.0	+ 1.0	— .9	86.4	+15.7	— .3	85.6	+16.8	— 1.3
1912.....	99.0	+ 1.0	(¹)	87.8	+13.9	+ 1.6	87.1	+14.8	+ 1.8
1913.....	100.0	.....	+ 1.0	100.0	.....	+13.9	100.0	.....	+14.8
Ladle liners:									
1907.....	95.1	+ 5.2	.....	111.6	—10.4	.....	105.6	+ 5.3	.....
1908.....	95.8	+ 4.4	+ .7	75.2	+33.0	—32.6	72.2	+38.5	—31.6
1909.....	95.1	+ 5.2	— .7	96.3	+ 3.8	+28.1	92.0	+ 8.7	+27.4
1910.....	96.8	+ 3.3	+ 1.8	94.1	+ 6.3	— 2.3	91.9	+ 8.8	— .1
1911.....	99.0	+ 1.0	+ 2.3	85.1	+17.5	— 9.6	83.9	+19.2	— 8.7
1912.....	99.9	+ .1	+ .9	91.9	+ 8.8	+ 8.0	91.6	+ 9.2	+ 9.2
1913.....	100.0	.....	+ .1	100.0	.....	+ 8.8	100.0	.....	+ 9.2

¹ No change.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—BESSEMER CONVERTERS—Concluded.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Ladle liners' helpers:									
1907.....	98.0	+ 2.0	.....	98.7	+ 1.3	.....	95.3	+ 4.9	.....
1908.....	97.0	+ 3.1	— 1.0	80.9	+23.6	—18.0	78.9	+ 26.7	—17.2
1909.....	98.4	+ 1.6	+ 1.4	89.1	+12.2	+10.1	87.3	+ 14.5	+10.6
1910.....	98.4	+ 1.6	(¹)	92.5	+ 8.1	+ 3.8	90.6	+ 10.4	+ 3.8
1911.....	99.0	+ 1.0	+ .6	91.4	+ 9.4	— 1.2	90.7	+ 10.3	+ .1
1912.....	99.7	+ .3	+ .7	89.4	+11.9	— 2.2	88.9	+ 12.5	— 2.0
1913.....	100.0	.....	+ .3	100.0	.....	+11.9	100.0	.....	+12.5
Stopper makers:									
1907.....	103.0	— 2.9	.....	103.4	— 3.3	.....	107.2	— 6.7	.....
1908.....	103.1	— 3.0	+ .1	73.0	+37.0	—29.4	75.0	+ 33.3	—30.0
1909.....	101.3	— 1.3	+ 1.7	88.4	+13.1	+21.1	89.6	+ 11.6	+19.5
1910.....	103.4	— 3.3	+ 2.1	86.1	+16.1	— 2.6	90.1	+ 11.0	+ .6
1911.....	102.0	— 2.0	+ 1.4	90.4	+10.6	+ 5.0	91.9	+ 8.8	+ 2.0
1912.....	100.3	— .3	— 1.7	90.1	+11.0	— 3	89.0	+ 12.4	— 3.2
1913.....	100.0	.....	— .3	100.0	.....	+11.0	100.0	.....	+12.4
Stopper setters:									
1907.....	101.9	— 1.9	.....	110.6	— 9.6	.....	111.0	— 9.9	.....
1908.....	107.5	— 7.0	+ 5.5	60.2	+66.1	—45.6	64.6	+ 54.8	—41.8
1909.....	109.7	— 8.8	+ 2.0	96.9	+ 3.2	+61.0	102.6	— 2.5	+53.8
1910.....	101.9	— 1.9	+ 7.1	103.4	— 3.3	+ 6.7	105.1	— 4.9	+ 2.4
1911.....	107.2	— 6.7	+ 5.2	89.3	+12.0	—13.6	91.9	+ 8.8	—12.6
1912.....	100.2	— .2	+ 6.5	88.9	+12.5	— 4	89.4	+ 11.9	— 2.7
1913.....	100.0	.....	— .2	100.0	.....	+12.5	100.0	.....	+11.9
Steel pourers:									
1907.....	103.3	— 3.2	.....	105.7	— 5.4	.....	106.8	— 6.4	.....
1908.....	107.1	— 6.6	+ 3.7	67.0	+49.3	—36.6	71.2	+ 40.4	—33.3
1909.....	107.2	— 6.7	+ .1	87.9	+13.8	+31.2	92.8	+ 7.8	+30.3
1910.....	101.6	— 1.6	+ 5.2	96.1	+ 4.1	+ 9.3	96.7	+ 3.4	+ 4.2
1911.....	100.7	— .7	— .9	83.3	+20.0	—13.3	82.4	+ 21.4	—14.8
1912.....	100.0	(¹)	— .7	90.0	+11.1	+ 8.0	90.3	+ 10.7	+ 9.6
1913.....	100.0	.....	(¹)	100.0	.....	+11.1	100.0	.....	+10.7
Mold cappers:									
1907.....	98.1	+ 1.9	.....	86.2	+ 16.0	.....	84.4	+ 18.5	.....
1908.....	96.7	+ 3.4	— 1.4	48.7	+105.3	—43.5	49.5	+102.0	—41.4
1909.....	97.2	+ 2.9	+ .5	67.4	+ 48.4	+38.4	66.8	+ 49.7	+34.9
1910.....	99.0	+ 1.0	+ 1.9	81.0	+ 23.5	+20.2	79.9	+ 25.2	+19.6
1911.....	111.5	—10.3	+12.6	72.8	+ 37.4	—10.1	81.8	+ 22.2	+ 2.4
1912.....	103.4	— 3.3	— 7.3	83.6	+ 19.6	+14.8	85.0	+ 17.6	+ 3.9
1913.....	100.0	.....	— 3.3	100.0	.....	+19.6	100.0	.....	+17.6
Ingot strippers:									
1907.....	96.7	+ 3.4	.....	91.6	+ 9.2	.....	85.2	+ 17.4	.....
1908.....	98.1	+ 1.9	+ 1.4	70.3	+ 42.2	—23.3	71.1	+ 40.6	—16.5
1909.....	100.7	— .7	+ 2.7	78.0	+ 28.2	+11.0	79.0	+ 26.6	+11.1
1910.....	97.4	+ 2.7	— 3.3	90.7	+ 10.3	+16.3	86.3	+ 15.9	+ 9.2
1911.....	100.7	— .7	— 3.4	84.4	+ 18.5	— 6.9	84.4	+ 18.5	— 2.2
1912.....	98.4	+ 1.6	— 2.3	95.8	+ 4.4	+13.5	91.6	+ 9.2	+ 8.5
1913.....	100.0	.....	+ 1.6	100.0	.....	+ 4.4	100.0	.....	+ 9.2
Laborers:									
1907.....	103.6	— 3.5	.....	80.7	+ 23.9	.....	84.5	+ 18.3	.....
1908.....	101.2	— 1.2	— 2.3	80.7	+ 23.9	(¹)	82.3	+ 21.5	— 2.6
1909.....	102.1	— 2.1	+ .9	78.6	+ 27.2	— 2.6	81.1	+ 23.3	— 1.5
1910.....	103.7	— 3.6	+ 1.6	84.9	+ 17.8	+ 8.0	88.5	+ 13.0	+ 9.1
1911.....	99.5	+ .5	— 4.1	86.5	+ 15.6	+ 1.9	86.4	+ 15.7	— 2.4
1912.....	100.9	— .9	+ 1.4	87.0	+ 14.9	+ .6	88.2	+ 13.4	+ 2.1
1913.....	100.0	.....	— .9	100.0	.....	+14.9	100.0	.....	—13.4

¹ No change.

A similar table of relative numbers and percentages is next shown for the Bessemer converting department as a whole, as determined by a combination of the data for the several principal productive occupations which are covered in this section of the report. The method of computing the figures of this table is explained on page 23.

From the table following, under "weekly earnings," it is seen that the relative full-time weekly earnings of the department as a whole in 1907 were 86.4 as compared with 100 in 1913. In other words, the full-time weekly earnings in 1907 were 86.4 per cent of those in 1913. The relative dropped to 79.1 in 1908, advanced to 84.1 in 1909, and to 88 in 1910, dropped in 1911 to 83.9, and advanced in 1912 to 90.2. In 1913, the base year, the relative was 100.

The next column shows that full-time weekly earnings in 1913 were 15.7 per cent higher than in 1907, 26.4 per cent higher than in 1908, 18.9 per cent higher than in 1909, 13.6 per cent higher than in 1910, 19.2 per cent higher than in 1911, and 10.9 per cent higher than in 1912.

The third column under "weekly earnings" shows the per cent of increase or decrease in full-time weekly earnings each year as compared with the year immediately preceding. Thus the full-time weekly earnings in 1908 were 8.4 per cent lower than in 1907; in 1909, 6.3 per cent higher than in 1908; in 1910, 4.6 per cent higher than in 1909; in 1911, 4.7 per cent lower than in 1910; in 1912, 7.5 per cent higher than in 1911; and in 1913, 10.9 per cent higher than in 1912.

The relative numbers and percentages for full-time hours per week and relative rates of wages per hour can be studied in like manner.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, ALL OCCUPATIONS—BESSEMER CONVERTERS.

Year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
1907.....	102.9	-2.8	.....	83.9	+19.2	.....	86.4	+15.7	.....
1908.....	98.7	+1.3	-4.1	78.0	+28.2	-7.0	79.1	+26.4	-8.4
1909.....	102.6	-2.5	+4.0	81.3	+23.0	+4.2	84.1	+18.9	+6.3
1910.....	103.4	-3.3	+8	84.9	+17.8	+4.4	88.0	+13.6	+4.6
1911.....	101.0	-1.0	-2.3	81.2	+23.2	-4.4	83.9	+19.2	-4.7
1912.....	100.7	-7	-3	89.8	+11.4	+10.6	90.2	+10.9	+7.5
1913.....	100.0	.....	-7	100.0	.....	+11.4	100.0	.....	+10.9

In considering weekly earnings it should be remembered that a reduction of hours tends to reduce weekly earnings just as an increase in wages per hour, of course, tends to increase them. Between 1907 and 1913 it will be observed that hours were reduced 2.8 per cent and wages per hour increased 19.2 per cent, each tending to offset the other in weekly earnings.

Still another influence on average weekly earnings for the department must be considered—that is, the change in the relative number of employees in the several occupations from year to year. It is obvious that an increase in the relative number of employees in the lower-paid occupations or a decrease in the relative number of those in the higher-paid ones would lower the average rate and earnings for all occupations, just as an increase in the relative number of employees in the higher-paid occupations or a decrease in the relative number in the lower-paid ones would increase the average.

FULL-TIME WORKING DAYS PER WEEK.

The number and per cent of employees in the principal productive occupations in Bessemer converting plants whose customary working time per week was 6 days or turns, or 7 days, or variations thereof, are shown in the following table. The figures are presented for each of the two districts for which these plants are reported and for the two combined. The employees given under the headings "5 days, 6 days, and 7 days in rotation," "6 days, 6 days, and 7 days in rotation," and "6 days, 7 days, and 7 days in rotation" are engaged in occupations for which the plant employs 3 shifts instead of the customary 2 to complete the 24 hours of a day. The heading "6 days, 6 days, and 7 days in rotation," for example, indicates that each week one-third of the employees reported work 7 turns instead of the customary 6, the plant being shut down during the time of 2 shifts on 1 day each week.

NUMBER AND PER CENT OF EMPLOYEES IN EACH DISTRICT WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1907 TO 1913—BESSEMER CONVERTERS.

[The figures for each group of years are for identical plants.]

District, and number of plants.	Year.	Number of employees.	Number of employees whose customary working time per week was—					Per cent of employees whose customary working time per week was—						
			6 days.	6 days and 7 days alternately.	5 days, 6 days, and 7 days in rotation.	6 days, 6 days, and 7 days in rotation.	6 days, 7 days, and 7 days in rotation.	7 days.	6 days.	6 days and 7 days alternately.	5 days, 6 days, and 7 days in rotation.	6 days, 6 days, and 7 days in rotation.	6 days, 7 days, and 7 days in rotation.	7 days.
Pittsburgh: 6 plants...	1907	1,325	999	53	.....	.....	.....	273	75.4	4.0	.....	.....	.....	20.6
	1908	896	727	42	.....	.....	.....	127	81.1	4.7	.....	.....	.....	14.2
	1909	992	778	44	.....	.....	.....	170	78.4	4.4	.....	.....	.....	17.1
	1910	1,246	825	18	78	.....	.....	325	66.2	1.4	6.3	.....	.....	26.1
6 plants...	1910	1,248	827	18	78	.....	.....	325	66.3	1.4	6.3	.....	.....	26.0
	1911	950	765	36	.....	3	.....	146	80.5	3.8	.....	0.3	.....	15.4
	1912	1,019	824	44	.....	3	.....	148	80.9	4.3	.....	.3	.....	14.5
6 plants...	1912	1,037	803	54	.....	12	9	159	77.4	5.2	.....	1.2	0.9	15.3
	1913	1,176	890	52	.....	69	12	153	75.7	4.4	.....	5.9	1.0	13.0
Great Lakes and Middle West: 3 plants...	1907	432	74	177	.....	18	12	151	17.1	41.0	.....	4.2	2.8	35.0
	1908	238	88	71	.....	18	12	94	31.1	25.1	.....	6.4	4.2	33.2
	1909	360	63	142	.....	18	12	125	17.5	39.4	.....	5.0	3.3	34.7
	1910	403	98	44	.....	18	12	231	24.3	10.9	.....	4.5	3.0	57.3
4 plants...	1910	482	173	48	.....	18	12	231	35.9	10.0	.....	3.7	2.5	47.9
	1911	392	267	44	.....	18	12	51	68.1	11.2	.....	4.6	3.1	13.0
4 plants...	1911	400	275	44	.....	18	12	51	68.8	11.0	.....	4.5	3.0	12.8
	1912	441	183	158	.....	18	12	70	41.5	35.8	.....	4.1	2.7	15.9
4 plants...	1912	457	225	136	.....	¹ 20	.....	76	49.2	29.8	.....	² 4.4	.....	16.6
	1913	485	325	114	.....	¹ 20	.....	26	67.0	22.5	.....	² 4.1	.....	5.4
Total: 9 plants...	1907	1,757	1,073	230	.....	18	12	424	61.1	13.1	.....	1.0	.7	24.1
	1908	1,179	815	113	.....	18	12	221	69.1	9.6	.....	1.5	1.0	18.7
	1909	1,352	841	186	.....	18	12	295	62.2	13.8	.....	1.3	.9	21.8
	1910	1,649	923	62	78	18	12	556	56.0	3.8	4.7	1.1	.7	33.7
10 plants...	1910	1,730	1,000	66	78	18	12	556	57.8	3.8	4.5	1.0	.7	32.1
	1911	1,342	1,032	80	.....	21	12	197	76.9	6.0	.....	1.6	.9	14.7
10 plants...	1911	1,350	1,040	80	.....	21	12	197	77.0	5.9	.....	1.6	.9	14.6
	1912	1,460	1,007	202	.....	21	12	218	69.0	13.8	.....	1.4	.8	14.9
10 plants...	1912	1,494	1,028	190	.....	¹ 32	9	235	68.8	12.7	.....	² 2.1	.6	15.7
	1913	1,661	1,215	166	.....	¹ 89	12	179	73.1	10.0	.....	² 5.4	.7	10.8

¹ Including 8 employees who worked 7 days every fourth week.

² Including 1.8 per cent who worked 7 days every fourth week.

³ Including 0.5 per cent who worked 7 days every fourth week.

In addition to the text tables in the summary, four general tables are presented for the Bessemer converting department, as follows:

Table I.—Average full-time weekly earnings and average and classified rates of wages per hour in the United States, by years, 1907 to 1913.

Table II.—Average full-time weekly earnings and average and classified rates of wages per hour in each year, by districts, 1912 and 1913.

Table III.—Average and classified full-time hours per week in the United States, by years, 1907 to 1913.

Table IV.—Average and classified full-time hours per week in each year, by districts, 1912 and 1913.

In Tables I and III, in addition to actual data, percentages computed therefrom are given. The data from these two tables are summarized in the text table on pages 60 to 64.

The order in which the occupations are given in Tables I to IV, inclusive, and in the table of relative numbers, follows that of the processes of manufacture.

“Identical plants,” as used in the tables of this report, are identical units of identical establishments, reporting the same occupations in each of two or more consecutive years. For a more extended explanation, see page 17.

Figures for each geographical division for each preceding year, back to 1907, corresponding to those given for 1912 and 1913 in Tables II and IV, and descriptions of the occupations which appear in the tables of this report, were given in Bulletin 151 of this Bureau, but have been omitted from the present report.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BESSEMER CONVERTERS.

[The figures for each group of years are for identical plants.]

NUMBER.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.												
						12	14	16	18	20	25	30	40	50	60	70	70 cts. and over.	
						and under 14 cts.	and under 16 cts.	and under 18 cts.	and under 20 cts.	and under 25 cts.	and under 30 cts.	and under 40 cts.	and under 50 cts.	and under 60 cts.	and under 70 cts.			
Stockers:																		
9 plants.....	1907	371	62.5	\$0.246	\$14.27	.....	63	97	6	46	54	81	24	.....	.....	.....	.....	.....
	1908	260	58.3	.275	14.93	116	21	55	.....	20	48	60	16	24	.....	.....	.....	.....
	1909	266	63.6	.264	15.31	22	49	37	15	19	12	54	49	9	.....	.....	.....	.....
	1910	350	64.9	.266	16.04	.....	10	115	16	32	57	69	51	.....	.....	.....	.....	.....
10 plants.....	1910	352	64.9	.266	16.03	.....	10	115	16	34	57	69	51	.....	.....	.....	.....	.....
	1911	241	61.7	.233	13.60	.....	12	81	15	58	39	24	12	.....	.....	.....	.....	.....
	1912	268	62.0	.312	17.66	.....	.....	80	21	23	13	55	40	36	.....	.....	.....	.....
10 plants.....	1912	280	62.1	.306	17.38	.....	.....	86	29	21	13	55	40	36	.....	.....	.....	.....
	1913	337	62.5	.331	19.05	.....	.....	4	83	69	23	36	74	36	12	.....	.....	.....
Cupola melters:																		
7 plants.....	1907	15	65.2	.509	31.67	.....	.....	.....	.....	1	1	3	.....	5	2	3	.....	.....
	1908	15	64.7	.350	22.20	.....	.....	.....	.....	2	3	5	3	2	.....	.....	.....	.....
	1909	15	64.7	.419	26.09	.....	.....	.....	.....	3	.....	2	5	5	.....	.....	.....	.....
	1910	16	60.6	.447	25.85	.....	.....	.....	.....	1	2	5	.....	5	3	.....	.....	.....
	1911	15	64.3	.390	24.45	.....	.....	.....	.....	1	2	4	6	2	.....	.....	.....	.....
8 plants.....	1911	17	65.2	.386	24.62	.....	.....	.....	.....	1	2	6	6	2	.....	.....	.....	.....
	1912	18	61.6	.409	23.82	.....	.....	.....	.....	1	2	6	4	5	.....	.....	.....	.....
	1913	19	62.4	.477	28.23	.....	.....	.....	.....	.....	4	2	2	8	3	.....	.....	.....
Cupola tappers:																		
8 plants.....	1907	50	60.5	.379	22.16	.....	.....	1	.....	.....	6	17	26	.....	.....	.....	.....	.....
	1908	43	59.3	.335	19.67	.....	.....	1	.....	2	8	27	5	.....	.....	.....	.....	.....
	1909	43	61.5	.340	19.74	.....	.....	1	.....	7	13	3	19	.....	.....	.....	.....	.....
	1910	56	58.9	.362	20.30	.....	.....	.....	1	2	17	18	15	3	.....	.....	.....	.....
	1911	41	59.3	.318	18.19	.....	.....	.....	1	2	12	26	.....	.....	.....	.....	.....	.....
9 plants.....	1911	45	60.4	.314	18.36	.....	.....	.....	1	2	16	26	.....	.....	.....	.....	.....	.....
	1912	48	60.6	.369	20.94	.....	.....	.....	1	2	18	1	26	.....	.....	.....	.....	.....
	1913	69	59.5	.393	22.25	.....	.....	.....	.....	2	20	8	27	12	.....	.....	.....	.....
Blowers:																		
9 plants.....	1907	20	65.4	.619	39.55	.....	.....	.....	.....	.....	.....	4	4	.....	3	9	.....	.....
	1908	19	68.8	.466	32.41	.....	.....	.....	.....	.....	.....	7	8	2	.....	.....	.....	.....
	1909	19	68.8	.486	33.29	.....	.....	.....	.....	.....	.....	4	9	4	.....	.....	.....	.....
	1910	20	69.8	.536	37.00	.....	.....	.....	.....	.....	.....	2	9	4	3	2	.....	.....
	1911	18	71.9	.498	35.84	.....	.....	.....	.....	.....	.....	2	10	4	.....	.....	.....	.....
10 plants.....	1911	20	72.0	.493	35.48	.....	.....	.....	.....	.....	.....	2	12	4	.....	.....	.....	.....
	1912	21	69.1	.529	36.36	.....	.....	.....	.....	.....	.....	.....	12	5	2	2	.....	.....
	1913	23	63.2	.600	37.33	.....	.....	.....	.....	.....	.....	.....	8	5	5	5	.....	.....
Regulators, first:																		
9 plants.....	1907	26	62.3	.437	27.28	.....	.....	2	.....	.....	11	9	.....	4	.....	.....	.....	.....
	1908	25	64.7	.266	17.78	.....	.....	2	9	3	5	2	4	.....	.....	.....	.....	.....
	1909	25	64.8	.344	22.97	.....	.....	2	.....	6	5	4	2	6	.....	.....	.....	.....
	1910	29	61.4	.414	25.60	.....	.....	.....	.....	2	.....	11	10	4	2	.....	.....	.....
10 plants.....	1910	31	62.1	.408	25.45	.....	.....	.....	.....	2	.....	13	10	4	2	.....	.....	.....
	1911	24	66.8	.377	24.79	.....	2	.....	.....	2	.....	9	9	2	.....	.....	.....	.....
	1912	25	64.7	.411	26.24	.....	.....	.....	.....	2	.....	9	10	4	.....	.....	.....	.....
10 plants.....	1912	24	63.5	.399	27.16	.....	.....	.....	.....	2	.....	11	9	2	.....	.....	.....	.....
	1913	24	67.6	.451	30.28	.....	.....	.....	.....	.....	6	.....	9	7	2	.....	.....	.....
Regulators, second:																		
6 plants.....	1907	18	65.3	.427	27.81	.....	.....	.....	.....	.....	.....	2	14	2	.....	.....	.....	.....
	1908	14	73.5	.289	19.64	.....	.....	.....	.....	5	3	2	3	1	.....	.....	.....	.....
	1909	14	73.8	.365	26.80	.....	.....	.....	.....	.....	1	6	6	.....	.....	.....	.....	.....
	1910	18	66.7	.403	26.96	.....	.....	.....	.....	.....	.....	7	9	2	.....	.....	.....	.....
8 plants.....	1910	22	67.5	.378	25.52	.....	.....	.....	.....	2	2	7	9	2	.....	.....	.....	.....
	1911	21	65.0	.333	21.41	.....	3	.....	.....	1	1	9	7	.....	.....	.....	.....	.....
	1912	23	63.5	.367	23.36	.....	.....	.....	.....	.....	6	13	.....	4	.....	.....	.....	.....
9 plants.....	1912	24	67.0	.381	25.63	.....	.....	.....	.....	.....	6	10	6	2	.....	.....	.....	.....
	1913	24	67.0	.411	27.56	.....	.....	.....	.....	4	.....	6	9	3	2	.....	.....	.....

¹ Earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BESSEMER CONVERTERS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Vessel men: 9 plants.....	1907	23	58.5	\$0.793	\$44.58							2		2	5	14
	1908	22	61.1	.528	31.27							9	2		7	4
	1909	22	61.2	.630	37.19							4	5	2	3	8
	1910	24	56.6	.708	38.88							2	2		12	8
10 plants....	1910	26	57.8	.685	38.18							2	4		12	8
	1911	25	59.1	.580	32.45						2	4	2	4	6	7
	1912	26	57.3	.703	38.32							2	5	4	3	12
	1913	26	57.4	.744	41.09								4	2	8	12
Vessel men's helpers: 9 plants.....	1907	47	57.0	.566	31.84						2	5	12	6	17	5
	1908	45	59.5	.376	21.65				1	11	6	7	12	6	2	
	1909	45	59.6	.484	28.24					2	4	6	17	8	5	3
	1910	49	55.3	.524	28.86						2	6	25	2	8	6
10 plants....	1910	53	56.5	.506	28.22					2	2	8	25	2	8	6
	1911	51	57.6	.421	23.48				2	4	5	9	14	14	1	2
	1912	53	55.9	.470	25.47						3	17	11	13	5	4
	1913	53	56.0	.528	28.87						3	17	14	10	5	4
Cinder pitmen: 8 plants.....	1907	118	67.9	.206	13.32		36	10	44	4	12	6	6			
	1908	71	65.9	.173	11.27		5	36	8	16	6					
	1909	92	68.4	.178	11.88		8	26	19	28	5		6			
	1910	79	67.3	.213	13.77		8	6	40	4	15	6				
9 plants.....	1910	85	67.6	.211	13.69		8	12	40	4	15	6				
	1911	62	69.8	.199	13.55		2	14	40			6				
	1912	87	67.2	.204	13.27			13	53	15		6				
	1913	99	68.1	.200	13.23			23	53	17		6				
Bottom makers: 9 plants.....	1913	113	67.3	.238	15.56			2	10	66	20	9	6			
	1907	17	73.4	.386	28.10						5	6	4		2	
	1908	17	72.4	.283	20.45			2		6			4			
	1909	16	73.1	.351	25.57					1	9		2	4		
10 plants....	1910	17	73.5	.355	25.92					2	3	8	4			
	1910	19	73.4	.346	25.28					2	5	8	4			
	1911	19	71.8	.337	24.18					2	6	7	2	2		
	1912	20	72.5	.345	24.96					2	3	11	2	2		
Bottom makers' helpers:	1913	20	73.8	.384	28.05					4		8	6		2	
	1907	30	73.5	.257	18.82				8	12	2	4	4			
	1908	27	72.2	.204	14.75			2	8	9		4				
	1909	29	73.1	.234	17.08		2		10	11		4	2			
10 plants....	1910	30	72.9	.239	17.38				11	11	4	4				
	1910	34	72.8	.235	17.10			2	11	13	4	4				
	1911	31	72.2	.234	16.88		1	2	10	9	3	6				
	1912	31	72.2	.238	17.18		2	2	9	6	8	2	2			
10 plants....	1912	39	72.4	.224	16.19		2	10	9	6	8	2	2			
	1913	40	73.1	.255	18.59			2	8	15	5	6	4			
Ladle liners: 9 plants.....	1907	21	65.1	.454	28.95					2	3	5	4	2	2	3
	1908	21	65.6	.306	19.78			2	1	4	6	3	3	2		
	1909	21	65.1	.392	25.22					5	2	3	8		2	1
	1910	23	66.3	.383	25.20					4	2	7	5	5		
10 plants....	1910	25	66.8	.378	25.05					4	2	9	5	5		
	1911	24	68.3	.342	22.85				2	4	4	4	6	4		
	1912	24	68.9	.369	24.95					4		12	5	3		

¹ Including 2 employees earning 9 and under 10 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BESSEMER CONVERTERS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Ladle liners—Con																
10 plants....	1912	22	68.6	\$0.394	\$25.84					2		12	5	3		
	1913	22	68.7	.418	28.22					2	2	4	7	7		
Ladle liners' helpers:																
9 plants....	1907	39	68.2	.255	16.65		4	8	4	11	4	3		2	3	
	1908	31	67.5	.209	13.79		7	6	4	10	1	2	1			
	1909	39	68.5	.230	15.26		4	8	7	13	2		3	2		
	1910	37	68.5	.239	15.83			12	2	15	3		5			
10 plants....	1910	39	68.7	.236	15.73			12	4	15	3		5			
	1911	34	69.1	.233	15.75		2	10	4	11	2	1	4			
	1912	34	69.6	.228	15.43		2	10	4	9	4	2	3			
	1913	34	69.8	.255	17.36				8	18	1	2	5			
Stopper makers:																
9 plants....	1907	10	72.8	.316	23.01				1	3	3		3			
	1908	9	72.9	.223	16.10		1	1	1	4	1	1				
	1909	9	71.6	.270	19.22			1	1	3	1		2	1		
	1910	11	73.1	.263	19.33				1	5	2	3				
10 plants....	1910	12	73.0	.260	19.14				1	6	2	3				
	1911	10	72.0	.273	19.53			1	1	3	1	4				
	1912	10	70.8	.272	18.91				2	4	1		2	1		
	1913	10	70.6	.302	21.25					4	2	3	1			
Stopper setters:																
9 plants....	1907	45	51.5	.630	31.79						1	11	7	6	6	14
	1908	40	54.3	.343	18.50			6	10	2	4	5	7		2	4
	1909	34	55.4	.552	29.36					4	4	4	2	5	3	12
	1910	37	51.5	.589	30.08							11	6	3	5	12
10 plants....	1910	39	52.6	.577	29.81							13	6	3	5	12
	1911	39	55.3	.498	26.08					5	3	9	7	3		12
	1912	42	51.7	.496	25.36							14	15	3	4	6
	1913	43	51.6	.558	28.37							8	12	2	9	12
Steel pourers:																
9 plants....	1907	29	55.4	.693	36.39						2		5	3	4	15
	1908	28	57.4	.439	24.25				4	5	4	1	9	5		
	1909	28	57.5	.576	31.61					2	9			5		12
	1910	30	54.5	.630	32.94					2		7	6	3		12
10 plants....	1910	32	55.6	.617	32.74					2		9	6	3		12
	1911	30	55.1	.535	27.91			3		2	2	3	8	9		3
	1912	32	54.7	.578	30.57					2		11	10	1		8
10 plants....	1912	34	55.7	.570	30.65					2		13	10	1		8
	1913	34	55.7	.633	33.94						6	1	11	3		13
Mold cappers:																
8 plants....	1907	48	54.5	.347	18.02		2	2		4	4	27	3	6		
	1908	39	53.7	.196	10.57		1	20	8	5	3	2				
	1909	43	54.0	.271	14.26	2		2	2	26		5		6		
	1910	46	55.0	.326	17.07			4	4	2	3	27		6		
9 plants....	1910	52	57.0	.314	16.96			4	4	8	3	27		6		
	1911	37	64.2	.282	17.36			1	8	6	10	6	6			
	1912	44	59.5	.324	18.03				8	6	6	16	2	6		
10 plants....	1912	52	61.5	.301	17.23			5	9	8	6	16	2	6		
	1913	61	59.5	.360	20.28				4	12	6	13	17	9		
Ingot strippers:																
9 plants....	1907	29	67.4	.310	19.60					12	6	5	4	2		
	1908	28	68.4	.238	16.34				4	12	10	2				
	1909	28	70.2	.264	18.17					12	10	6				
	1910	29	67.9	.307	19.85					8	12		9			
10 plants....	1910	31	68.1	.303	19.69					10	12		9			
	1911	27	70.4	.282	19.26				4	8	10		5			
	1912	28	68.8	.320	20.90					8	12	2		6		
	1913	28	69.9	.334	22.81						16	4	8			

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BESSEMER CONVERTERS—Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Laborers: 9 plants.....	1907	801	78.0	\$0.155	\$12.12	.....	571	230	.....	.....	.....	.....	.....	.....	.....	.....
	1908	425	76.2	.155	11.86	.....	327	98	.....	.....	.....	.....	.....	.....	.....	.....
	1909	564	76.9	.151	11.62	92	309	163	.....	.....	.....	.....	.....	.....	.....	.....
	1910	748	78.1	.163	12.69	.....	204	544	.....	.....	.....	.....	.....	.....	.....	.....
	1911	786	77.8	.163	12.69	.....	204	582	.....	.....	.....	.....	.....	.....	.....	.....
10 plants.....	1911	593	74.6	.166	12.39	.....	105	488	.....	.....	.....	.....	.....	.....	.....	.....
	1912	626	75.7	.167	12.64	.....	49	577	.....	.....	.....	.....	.....	.....	.....	.....
	1913	681	75.1	.167	12.68	.....	42	578	.....	.....	.....	.....	.....	.....	.....	.....
10 plants.....	1912	620	75.8	.167	12.68	.....	42	578	.....	.....	.....	.....	.....	.....	.....	.....
	1913	681	75.1	.192	14.38	.....	.....	135	354	192	.....	.....	.....	.....	.....	.....

PER CENT.

Stockers: 9 plants.....	1907	371	62.5	\$0.246	\$14.27	.....	17.0	26.1	1.6	12.4	14.6	21.8	6.5	.....	.....	.....
	1908	260	58.3	.275	14.93	6.2	8.1	21.2	.....	7.7	18.5	23.1	6.2	9.2	.....	.....
	1909	266	63.6	.264	15.31	8.3	18.4	13.9	5.6	7.1	4.5	20.3	18.4	3.4	.....	.....
	1910	350	64.9	.266	16.04	.....	2.9	32.9	4.6	9.1	16.3	19.7	14.6	.....	.....	.....
	1911	352	64.9	.266	16.03	.....	2.8	32.7	4.5	9.7	16.2	19.6	14.5	.....	.....	.....
10 plants.....	1911	241	61.7	.233	13.60	.....	5.0	33.6	6.2	24.1	16.2	10.0	5.0	.....	.....	.....
	1912	268	62.0	.312	17.66	.....	.....	29.9	7.8	8.6	4.9	20.5	14.9	13.4	.....	.....
	1913	280	62.1	.306	17.38	.....	.....	30.7	10.4	7.5	4.6	19.6	14.3	12.9	.....	.....
Cupola melters: 7 plants.....	1913	337	62.5	.331	19.05	.....	.....	1.2	24.6	20.5	6.8	10.7	22.0	10.7	3.6	.....
	1907	15	65.2	.509	31.67	.....	.....	.....	.....	6.7	6.7	20.0	.....	33.3	13.3	20.0
	1908	15	64.7	.350	22.20	.....	.....	.....	.....	13.8	20.0	33.3	20.0	13.3	.....	.....
	1909	15	64.7	.419	26.09	.....	.....	.....	.....	20.0	.....	13.3	33.3	33.3	.....	.....
	1910	16	60.6	.447	25.85	.....	.....	.....	.....	6.3	12.5	81.3	.....	31.3	18.8	.....
8 plants.....	1911	41	59.3	.318	18.19	.....	.....	.....	.....	6.7	13.3	26.7	40.0	13.3	.....	.....
	1911	17	65.2	.386	24.62	.....	.....	.....	.....	5.9	11.8	35.3	35.3	11.8	.....	.....
	1912	18	61.6	.409	23.82	.....	.....	.....	.....	5.6	11.1	33.3	22.2	27.8	.....	.....
	1913	19	62.4	.477	28.23	.....	.....	.....	.....	21.1	10.5	10.5	42.1	15.8	.....	.....
	1907	50	60.5	.379	22.16	.....	.....	2.0	.....	.....	12.0	34.0	52.0	.....	.....	.....
Cupola tappers: 8 plants.....	1908	43	59.3	.335	19.67	.....	.....	2.3	.....	4.7	18.6	62.8	11.6	.....	.....	.....
	1909	43	61.5	.340	19.74	.....	.....	2.3	.....	16.3	30.2	7.0	44.2	.....	.....	.....
	1910	56	58.9	.362	20.30	.....	.....	.....	1.8	3.6	30.4	32.1	26.8	5.4	.....	.....
	1911	41	59.3	.318	18.19	.....	.....	.....	2.4	4.9	29.3	63.4	.....	.....	.....	.....
	1911	45	60.4	.314	18.36	.....	.....	.....	2.2	4.4	35.6	57.8	.....	.....	.....	.....
9 plants.....	1912	48	60.6	.369	20.94	.....	.....	.....	2.1	4.2	37.5	2.1	54.2	.....	.....	.....
	1913	69	59.5	.393	22.25	.....	.....	.....	.....	2.9	29.0	11.6	39.1	17.4	.....	.....
Blowers: 9 plants.....	1907	20	65.4	.619	39.55	.....	.....	.....	.....	.....	.....	20.0	20.0	.....	15.0	45.0
	1908	19	68.8	.468	32.41	.....	.....	.....	.....	.....	.....	36.8	42.1	10.5	.....	10.5
	1909	19	68.8	.480	33.29	.....	.....	.....	.....	.....	.....	21.1	47.4	21.1	.....	10.5
	1910	20	69.8	.536	37.00	.....	.....	.....	.....	.....	.....	10.0	45.0	20.0	15.0	10.0
	1911	18	71.9	.498	35.84	.....	.....	.....	.....	.....	.....	11.1	55.6	22.2	.....	11.1
	1911	20	72.0	.493	35.48	.....	.....	.....	.....	.....	.....	10.0	60.0	20.0	.....	10.0
10 plants.....	1912	21	69.1	.529	36.36	.....	.....	.....	.....	.....	.....	.....	57.1	23.8	9.5	9.5
	1913	23	63.2	.600	37.33	.....	.....	.....	.....	.....	.....	.....	34.8	21.7	21.7	21.7
Regulators, first, 9 plants.....	1907	26	62.3	.437	27.28	.....	.....	7.7	.....	.....	.....	42.3	34.6	.....	15.4	.....
	1908	25	64.7	.268	17.78	.....	.....	8.0	36.0	12.0	20.0	8.0	16.0	.....	.....	.....
	1909	25	64.8	.344	22.97	.....	.....	8.0	.....	24.0	20.0	16.0	8.0	24.0	.....	.....
	1910	29	61.4	.414	25.60	.....	.....	.....	.....	6.9	.....	37.9	34.5	13.8	6.9	.....
	1910	29	61.4	.414	25.60	.....	.....	.....	.....	6.9	.....	37.9	34.5	13.8	6.9	.....

¹ Earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BESSEMER CONVERTERS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Regulators, first—Con.																
10 plants.....	1910	31	62.1	\$0.408	\$25.45	.....	.....	.....	6.5	.....	41.9	32.3	12.9	6.5	.....	.....
	1911	24	66.8	.377	24.79	.....	8.3	.....	.....	37.5	37.5	8.3	.....	.....	.....	.....
	1912	25	64.7	.411	26.24	.....	.....	.....	8.0	.....	36.0	40.0	16.0	.....	.....	.....
10 plants.....	1912	24	68.5	.399	27.16	.....	.....	.....	8.3	.....	45.8	37.5	8.3	.....	.....	.....
	1913	24	67.6	.451	30.28	.....	.....	.....	.....	25.0	.....	37.5	29.2	8.3	.....	.....
Regulators, second:																
6 plants.....	1907	18	65.3	.427	27.81	.....	.....	.....	35.7	21.4	11.1	77.8	11.1	.....	.....	.....
	1908	14	73.5	.269	19.64	.....	.....	.....	.....	14.3	21.4	7.1	.....	.....	.....	.....
	1909	14	73.8	.365	26.80	.....	.....	.....	7.1	7.1	42.9	42.9	.....	.....	.....	.....
	1910	18	66.7	.403	26.96	.....	.....	.....	.....	.....	38.9	50.0	11.1	.....	.....	.....
8 plants.....	1910	22	67.5	.378	25.52	.....	.....	.....	9.1	9.1	31.8	40.9	9.1	.....	.....	.....
	1911	21	65.0	.333	21.41	.....	14.3	.....	4.8	4.8	42.9	33.3	.....	.....	.....	.....
	1912	23	63.5	.367	23.36	.....	.....	.....	.....	26.1	56.5	.....	17.4	.....	.....	.....
9 plants.....	1912	24	67.0	.381	25.63	.....	.....	.....	.....	25.0	41.7	25.0	8.3	.....	.....	.....
	1913	24	67.0	.411	27.56	.....	.....	.....	16.7	.....	25.0	37.5	12.5	8.3	.....	.....
Vessel men:																
9 plants.....	1907	23	58.5	.793	44.58	.....	.....	.....	.....	.....	8.7	.....	8.7	21.7	60.9	.....
	1908	22	61.1	.528	31.27	.....	.....	.....	.....	.....	40.9	9.1	.....	31.8	18.2	.....
	1909	22	61.2	.630	37.19	.....	.....	.....	.....	.....	18.2	22.7	9.1	13.6	36.4	.....
	1910	24	56.6	.708	38.88	.....	.....	.....	.....	.....	8.3	8.3	.....	50.0	33.3	.....
10 plants.....	1910	26	57.8	.685	38.18	.....	.....	.....	.....	.....	7.7	15.4	.....	46.2	30.8	.....
	1911	25	59.1	.589	32.45	.....	.....	.....	.....	8.0	16.0	8.0	16.0	24.0	28.0	.....
	1912	26	57.3	.703	38.32	.....	.....	.....	.....	.....	7.7	19.2	15.4	11.5	46.2	.....
10 plants.....	1912	26	58.3	.688	38.60	.....	.....	.....	.....	.....	7.7	19.2	15.4	11.5	46.2	.....
	1913	26	57.4	.744	41.09	.....	.....	.....	.....	.....	.....	15.4	7.7	30.8	46.2	.....
Vessel men's helpers:																
9 plants.....	1907	47	57.0	.566	31.84	.....	.....	.....	.....	4.3	10.6	25.5	12.8	36.2	10.6	.....
	1908	45	58.5	.376	21.65	.....	.....	2.2	24.4	13.3	15.6	26.7	13.3	4.4	.....	.....
	1909	45	59.6	.484	28.24	.....	.....	.....	4.4	8.9	13.3	37.8	17.8	11.1	6.7	.....
	1910	49	55.3	.524	28.86	.....	.....	.....	.....	4.1	12.2	51.0	4.1	16.3	12.2	.....
10 plants.....	1910	53	56.5	.506	28.22	.....	.....	.....	3.8	15.1	47.2	3.8	15.1	11.3	.....	.....
	1911	51	57.6	.421	23.48	.....	.....	3.9	7.8	9.8	17.6	27.5	27.5	2.0	3.9	.....
	1912	53	55.9	.470	25.47	.....	.....	.....	.....	5.7	32.1	20.8	24.5	9.4	7.5	.....
10 plants.....	1912	53	56.5	.467	25.70	.....	.....	.....	.....	5.7	32.1	26.4	18.9	9.4	7.5	.....
	1913	53	56.0	.528	28.87	.....	.....	.....	.....	.....	17.0	34.0	17.0	15.1	17.0	.....
Cinder pitmen:																
8 plants.....	1907	118	67.9	.206	13.32	.....	30.5	8.5	37.3	3.4	10.2	5.1	5.1	.....	.....	.....
	1908	71	65.9	.173	11.27	.....	7.0	50.7	11.3	22.5	.....	.....	.....	.....	.....	.....
	1909	92	68.4	.178	11.88	8.7	28.3	20.7	30.4	5.4	.....	.....	.....	.....	.....	.....
	1910	79	67.3	.213	13.77	.....	10.1	7.6	50.6	5.1	19.0	7.6	.....	.....	.....	.....
9 plants.....	1910	85	67.6	.211	13.69	.....	9.4	14.1	47.1	4.7	17.6	7.1	.....	.....	.....	.....
	1911	62	69.8	.199	13.55	.....	3.2	22.6	64.5	.....	.....	9.7	.....	.....	.....	.....
	1912	87	67.2	.204	13.27	.....	.....	14.9	60.9	17.2	.....	6.9	.....	.....	.....	.....
9 plants.....	1912	99	68.1	.200	13.23	.....	.....	23.2	53.5	17.2	.....	6.1	.....	.....	.....	.....
	1913	113	67.3	.238	15.56	.....	.....	1.8	8.8	58.4	17.7	8.0	5.3	.....	.....	.....
Bottom makers:																
9 plants.....	1907	17	73.4	.386	28.10	.....	.....	.....	.....	29.4	35.3	23.5	.....	11.8	.....	.....
	1908	17	72.4	.283	20.45	.....	.....	11.8	.....	35.3	29.4	.....	.....	.....	.....	.....
	1909	16	73.1	.351	25.57	.....	.....	.....	.....	6.3	56.3	.....	12.5	25.0	.....	.....
	1910	17	73.5	.355	25.92	.....	.....	.....	.....	11.8	17.6	47.1	23.5	.....	.....	.....
10 plants.....	1910	19	73.4	.346	25.28	.....	.....	.....	10.5	26.3	42.1	21.1	.....	.....	.....	.....
	1911	19	71.8	.337	24.18	.....	.....	.....	10.5	31.6	36.8	10.5	10.5	.....	.....	.....
	1912	20	72.5	.345	24.06	.....	.....	.....	10.0	15.0	55.0	10.0	10.0	.....	.....	.....
	1913	20	73.8	.384	28.05	.....	.....	.....	20.0	.....	40.0	30.0	.....	10.0	.....	.....

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BESSEMER CONVERTERS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Bottom makers' helpers:																	
9 plants.....	1907	30	73.5	\$0.257	\$18.82				26.7	40.0	6.7	13.3	13.3				
	1908	27	72.2	.204	14.75	14.8		7.4	29.6	33.3		14.8					
	1909	29	73.1	.234	17.08		6.9		34.5	37.9		13.8	6.9				
	1910	30	72.9	.239	17.38				36.7	36.7	13.3	13.3					
10 plants....	1910	34	72.8	.235	17.10			5.9	32.4	38.2	11.8	11.8					
	1911	31	72.2	.234	16.88		3.2	6.5	32.3	29.0	9.7	19.4					
	1912	31	72.2	.238	17.18			6.5	29.0	19.4	25.8	6.5	6.5				
10 plants....	1912	39	72.4	.224	16.19		5.1	25.6	23.1	15.4	20.5	5.1	5.1				
	1913	40	73.1	.255	18.59			5.0	20.0	37.5	12.5	15.0	10.0				
Ladle liners:																	
9 plants.....	1907	21	65.1	.454	28.95				9.5	14.3	23.8	19.0	9.5	9.5	14.3		
	1908	21	65.6	.306	19.78			9.5	4.8	19.0	28.6	14.3	14.3	9.5			
	1909	21	65.1	.392	25.22				23.8	9.5	14.3	38.1		9.5	4.8		
	1910	23	66.3	.383	25.20				17.4	8.7	30.4	21.7	21.7				
10 plants....	1910	25	66.8	.378	25.05					16.0	8.0	36.0	20.0	20.0			
	1911	24	68.3	.342	22.85				8.3	16.7	16.7	16.7	25.0	16.7			
	1912	24	68.9	.369	24.95					16.7		50.0	20.8	12.5			
10 plants....	1912	22	68.6	.384	25.84					9.1		54.5	22.7	13.6			
	1913	22	68.7	.418	28.22					9.1	9.1	18.2	31.8	31.8			
Ladle liners' helpers:																	
9 plants.....	1907	39	68.2	.255	16.65	10.3		20.5	10.3	28.2	10.3	7.7		5.1	7.7		
	1908	31	67.5	.209	13.79	22.6		19.4	12.9	32.2	3.2	6.5	3.2				
	1909	39	68.5	.230	15.26	10.3		20.5	17.9	33.3	5.1		7.7	5.1			
	1910	37	68.5	.239	15.83			32.4	5.4	40.5	8.1		13.5				
10 plants....	1910	39	68.7	.236	15.73			30.8	10.3	38.5	7.7		12.8				
	1911	34	69.1	.233	15.75		5.9	29.4	11.8	32.4	5.9	2.9	11.8				
	1912	34	69.6	.228	15.43		5.9	29.4	11.8	26.5	11.8	5.9	8.8				
	1913	34	69.8	.255	17.36				23.5	52.9	2.9	5.9	14.7				
Stopper makers:																	
9 plants.....	1907	10	72.8	.316	23.01				10.0	30.0	30.0		30.0				
	1908	9	72.9	.223	16.10	11.1		11.1	11.1	44.4	11.1	11.1					
	1909	9	71.6	.270	19.22			11.1	11.1	33.3	11.1	22.2	11.1				
	1910	11	73.1	.263	19.33				9.1	45.5	18.2	27.3					
10 plants....	1910	12	73.0	.260	19.14				8.3	50.0	16.7	25.0					
	1911	10	72.0	.273	19.53			10.0	10.0	30.0	10.0	40.0					
	1912	10	70.8	.272	18.91				20.0	40.0	10.0	20.0	10.0				
	1913	10	70.6	.302	21.25					40.0	20.0	30.0	10.0				
Stopper setters:																	
9 plants.....	1907	45	51.5	.630	31.79						2.2	24.4	15.6	13.3	13.3	31.1	
	1908	40	54.3	.343	18.50			15.0	25.0	5.0	10.0	12.5	17.5		5.0	10.0	
	1909	34	55.4	.552	29.36						11.8	11.8	5.9	14.7	8.8	35.3	
	1910	37	51.5	.589	30.08							29.7	16.2	8.1	13.5	32.4	
10 plants....	1910	39	52.6	.577	29.81							33.3	15.4	7.7	12.8	30.8	
	1911	39	55.3	.498	26.08					12.8	7.7	23.1	17.9	7.7		30.8	
	1912	42	51.7	.496	25.36							33.3	35.7	7.1	9.5	14.3	
	1913	43	51.6	.558	28.37							18.6	27.9	4.7	20.9	27.9	
Steel pourers:																	
9 plants.....	1907	29	55.4	.693	36.39						6.9		17.2	10.3	13.8	51.7	
	1908	28	57.4	.439	24.25					14.3	17.9	14.3	3.6	32.1	17.9		
	1909	28	57.5	.576	31.61						7.1	32.1			17.9	42.9	
	1910	30	54.5	.630	32.94						6.7		23.3	20.0	10.0	40.0	
10 plants....	1910	32	55.6	.617	32.74						6.3		28.1	18.8	9.4	37.5	
	1911	30	55.1	.535	27.91			10.0			6.7	6.7	10.0	26.7	30.0	10.0	
	1912	32	54.7	.578	30.57						6.3		34.4	31.3	3.1	25.0	
10 plants....	1912	34	55.7	.570	30.65						5.9		38.2	29.4	2.9	23.5	
	1913	34	55.7	.633	33.94							17.6	2.9	32.4	8.8	38.2	

¹ Including 7.4 per cent earning 9 and under 10 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BESSEMER CONVERTERS—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Mold cappers: 8 plants.....	1907	48	54.5	\$0.347	\$18.02	.....	4.2	4.2	.....	8.3	8.3	56.3	6.3	12.5	.....	.....
	1908	39	53.7	.196	10.57	.....	2.6	51.3	20.5	12.8	7.7	5.1	.....	.....	.....	.....
	1909	43	54.0	.271	14.26	4.7	.....	4.7	4.7	60.5	.....	11.6	.....	14.0	.....	.....
	1910	46	55.0	.326	17.07	.....	.....	8.7	8.7	4.3	6.5	58.7	.....	13.0	.....	.....
9 plants.....	1910	52	57.0	.314	16.96	.....	.....	7.7	7.7	15.4	5.8	51.9	.....	11.5	.....	.....
	1911	37	64.2	.282	17.36	.....	.....	2.7	21.6	16.2	27.0	16.2	16.2	.....	.....	.....
	1912	44	59.5	.324	18.03	.....	.....	.....	18.2	13.6	13.6	36.4	4.5	13.6	.....	.....
10 plants.....	1912	52	61.5	.301	17.23	.....	.....	9.6	17.3	15.4	11.5	30.8	3.8	11.5	.....	.....
	1913	61	59.5	.360	20.28	.....	.....	.....	6.6	19.7	9.8	21.3	27.9	14.8	.....	.....
Ingot strippers: 9 plants.....	1907	29	67.4	.310	19.60	.....	.....	.....	41.4	20.7	17.2	13.8	6.9	.....	.....	.....
	1908	28	68.4	.238	16.34	.....	.....	.....	14.3	42.9	35.7	7.1	.....	.....	.....	.....
	1909	28	70.2	.264	18.17	.....	.....	.....	42.9	35.7	21.4	.....	.....	.....	.....	.....
	1910	29	67.9	.307	19.85	.....	.....	.....	27.6	41.4	.....	31.0	.....	.....	.....	.....
10 plants.....	1910	31	68.1	.303	19.69	.....	.....	.....	32.3	38.7	.....	29.0	.....	.....	.....	.....
	1911	27	70.4	.282	19.26	.....	.....	.....	14.8	29.6	37.0	18.5	.....	.....	.....	.....
	1912	28	68.8	.320	20.90	.....	.....	.....	28.6	42.9	7.1	.....	.....	21.4	.....	.....
	1913	28	69.9	.334	22.81	.....	.....	.....	.....	57.1	14.3	28.6	.....	.....	.....	.....
Laborers: 9 plants.....	1907	801	78.0	.155	12.12	.....	71.3	28.7	.....	.....	.....	.....	.....	.....	.....	.....
	1908	425	76.2	.155	11.80	.....	76.9	23.1	.....	.....	.....	.....	.....	.....	.....	.....
	1909	564	76.9	.151	11.62	16.3	54.8	28.9	.....	.....	.....	.....	.....	.....	.....	.....
	1910	748	78.1	.163	12.69	.....	27.3	72.7	.....	.....	.....	.....	.....	.....	.....	.....
10 plants.....	1910	786	77.8	.163	12.69	.....	26.0	74.0	.....	.....	.....	.....	.....	.....	.....	.....
	1911	593	74.6	.166	12.39	.....	17.7	82.3	.....	.....	.....	.....	.....	.....	.....	.....
	1912	626	75.7	.167	12.64	.....	7.8	92.2	.....	.....	.....	.....	.....	.....	.....	.....
10 plants.....	1912	620	75.8	.167	12.68	.....	6.8	93.2	.....	.....	.....	.....	.....	.....	.....	.....
	1913	681	75.1	.192	14.38	.....	.....	19.8	52.0	28.2	.....	.....	.....	.....	.....	.....

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BESSEMER CONVERTERS.

[The abbreviation "G. L. and M. W." stands for "Great Lakes and Middle West."]

STOCKERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Pittsburgh.....	6	231	59.4	\$0.332	\$18.20			54	26	9	13	53	40	36		
G. L. and M. W.	4	49	74.5	.183	13.50			32	3	12		2				
Total....	10	280	62.1	.306	17.38			86	29	21	13	55	40	36		
1913.																
Pittsburgh.....	6	279	60.2	.356	19.81				65	49	7	36	74	36	12	
G. L. and M. W.	4	58	73.8	.210	15.43			4	18	20	16					
Total....	10	337	62.5	.331	17.05			4	83	69	23	36	74	36	12	

CUPOLA MELTERS.

1912.																
Pittsburgh.....	5	13	57.2	\$0.442	\$23.88						2	2	4	5		
G. L. and M. W.	3	5	73.2	.323	23.64					1		4				
Total....	8	18	61.6	.409	23.82					1	2	6	4	5		
1913.																
Pittsburgh.....	5	13	57.5	.535	29.44						2			8	3	
G. L. and M. W.	3	6	73.0	.351	25.60						2	2	2			
Total....	8	19	62.4	.477	28.23						4	2	2	8	3	

CUPOLA TAPPERS.

1912.																
Pittsburgh.....	5	33	53.7	\$0.423	\$21.83						6	1	26			
G. L. and M. W.	4	15	75.6	.251	18.98				1	2	12					
Total....	9	48	60.6	.369	20.94				1	2	18	1	26			
1913.																
Pittsburgh.....	5	53	54.8	.426	22.54						10	4	27	12		
G. L. and M. W.	4	16	75.4	.283	21.30					2	10	4				
Total....	9	69	59.5	.393	22.25					2	20	8	27	12		

BLOWERS.

1912.																
Pittsburgh.....	6	13	66.4	\$0.530	\$34.96								6	5	2	
G. L. and M. W.	4	8	73.5	.527	38.63								6			2
Total....	10	21	69.1	.529	36.36								12	5	2	2
1913.																
Pittsburgh.....	6	15	57.7	.622	35.41								2	5	5	3
G. L. and M. W.	4	8	73.5	.558	40.92								6			2
Total....	10	23	63.2	.600	37.33								8	5	5	5

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BESSEMER CONVERTERS—Continued.

REGULATORS, FIRST.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Pittsburgh.....	6	14	62.6	\$0.428	\$27.05	.....	.....	.....	.....	.....	.....	6	6	2	.....	.....
G. L. and M. W.	4	10	76.8	.360	27.31	.....	.....	.....	.....	2	.....	5	3	.....	.....	.....
Total....	10	24	68.5	.399	27.16	.....	.....	.....	.....	2	.....	11	9	2	.....	.....
1913.																
Pittsburgh.....	6	14	62.7	.493	31.23	.....	.....	.....	.....	.....	.....	.....	9	3	2	.....
G. L. and M. W.	4	10	74.4	.393	28.95	.....	.....	.....	.....	.....	6	.....	.....	4	.....	.....
Total....	10	24	67.6	.451	30.28	.....	.....	.....	.....	.....	6	.....	9	7	2	.....

REGULATORS, SECOND.

1912.																
Pittsburgh.....	6	14	61.7	\$0.391	\$24.47						2	8	2	2		
G. L. and M. W.	3	10	74.4	.369	27.26						4	2	4			
Total....	9	24	67.0	.381	25.63						6	10	6	2		
1913.																
Pittsburgh.....	6	14	61.6	.437	27.49							6	4	2	2	
G. L. and M. W.	3	10	74.4	.376	27.66					4			5	1		
Total....	9	24	67.0	.411	27.56					4		6	9	3	2	

VESSEL MEN.

1912.																
Pittsburgh.....	6	17	52.5	\$0.735	\$38.21								5		3	9
G. L. and M. W.	4	9	69.3	.599	39.35							2		4		3
Total....	10	26	58.3	.688	38.60							2	5	4	3	12
1913.																
Pittsburgh.....	6	17	52.5	.780	40.36									2	6	9
G. L. and M. W.	4	9	66.7	.675	42.46								4		2	3
Total....	10	26	57.4	.744	41.09								4	2	8	12

VESSEL MEN'S HELPERS.

1912.																
Pittsburgh.....	6	34	51.7	\$0.472	\$24.06							13	7	8	3	3
G. L. and M. W.	4	19	65.1	.457	28.64						3	4	7	2	2	1
Total....	10	53	56.5	.467	25.70						3	17	14	10	5	4
1913.																
Pittsburgh.....	6	34	51.6	.531	27.23							3	16	3	6	6
G. L. and M. W.	4	19	63.8	.523	31.80							6	2	6	2	3
Total....	10	53	56.0	.528	28.87							9	18	9	8	9

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BESSEMER CONVERTERS—Continued.**CINDER PITMEN.**

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Pittsburgh.....	5	66	64.6	\$0.213	\$13.31	.....	.....	.....	45	15	.....	6	.....	.....	.....	.....
G. L. and M. W.	4	33	75.1	.175	13.08	.....	.....	23	8	2	.....	.....	.....	.....	.....	.....
Total.....	9	99	68.1	.200	13.23	.....	.....	23	53	17	.....	6	.....	.....	.....	.....
1913.																
Pittsburgh.....	5	77	64.0	.246	15.16	.....	.....	.....	.....	50	14	7	6	.....	.....	.....
G. L. and M. W.	4	36	74.3	.222	16.41	.....	.....	2	10	16	6	2	.....	.....	.....	.....
Total.....	9	113	67.3	.238	15.56	.....	.....	2	10	66	20	9	6	.....	.....	.....

BOTTOM MAKERS.

1912.																
Pittsburgh.....	6	12	71.8	\$0.385	\$27.61	.....	.....	.....	.....	.....	.....	8	2	2	.....	.....
G. L. and M. W.	4	8	73.5	.287	21.00	.....	.....	.....	.....	2	3	3	.....	.....	.....	.....
Total.....	10	20	72.5	.345	24.96	.....	.....	.....	.....	2	3	11	2	2	.....	.....
1913.																
Pittsburgh.....	6	12	73.9	.416	30.42	.....	.....	.....	.....	2	.....	4	4	.....	2	.....
G. L. and M. W.	4	8	73.5	.355	24.51	.....	.....	.....	.....	2	.....	4	2	.....	.....	.....
Total.....	10	20	73.8	.384	28.05	.....	.....	.....	.....	4	.....	8	6	.....	2	.....

BOTTOM MAKERS' HELPERS.

1912.																
Pittsburgh.....	6	26	71.7	\$0.234	\$16.77	.....	2	6	6	2	6	2	2	.....	.....	.....
G. L. and M. W.	4	13	73.8	.204	15.04	.....	.....	4	3	4	2	.....	.....	.....	.....	.....
Total.....	10	39	72.4	.224	16.19	.....	2	10	9	6	8	2	2	.....	.....	.....
1913.																
Pittsburgh.....	6	26	72.8	.258	18.74	.....	.....	.....	8	8	2	6	2	.....	.....	.....
G. L. and M. W.	4	14	73.7	.250	18.31	.....	.....	2	.....	7	3	.....	2	.....	.....	.....
Total.....	10	40	73.1	.255	18.59			2	8	15	5	6	4			

LADLE LINERS.

1912.																
Pittsburgh.....	6	12	71.8	\$0.365	\$26.16	.....	.....	.....	.....	.....	.....	8	4	.....	.....	.....
G. L. and M. W.	4	10	64.8	.407	25.45	.....	.....	.....	.....	2	.....	4	1	3	.....	.....
Total.....	10	22	68.6	.384	25.84	.....	.....	.....	.....	2	.....	12	5	3	.....	.....
1913.																
Pittsburgh.....	6	12	71.9	.404	29.04	.....	.....	.....	.....	2	.....	2	6	2	.....	.....
G. L. and M. W.	4	10	64.8	.434	27.22	.....	.....	.....	.....	.....	2	2	1	5	.....	.....
Total.....	10	22	68.7	.418	28.22	.....	.....	.....	.....	2	2	4	7	7	.....	.....

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BESSEMER CONVERTERS—Continued.

LADLE LINERS' HELPERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Pittsburgh.....	6	24	71.6	\$0.214	\$15.29	.....	2	8	.....	8	4	2	.....	.....	.....	.....
G. L. and M. W.	4	10	64.8	.262	15.77	.....	.....	2	4	1	.....	.....	3	.....	.....	.....
Total....	10	34	69.6	.228	15.43	.....	2	10	4	9	4	2	3	.....	.....	.....
1913.																
Pittsburgh.....	6	24	71.8	.243	17.46	.....	.....	.....	8	12	.....	2	2	.....	.....	.....
G. L. and M. W.	4	10	64.8	.282	17.13	.....	.....	.....	.....	6	1	.....	3	.....	.....	.....
Total....	10	34	69.8	.255	17.36	.....	.....	.....	8	18	1	2	5	.....	.....	.....

STOPPER MAKERS.

1912.																
Pittsburgh.....	6	6	70.0	\$0.263	\$17.84	.....	.....	.....	1	4	.....	.....	1	.....	.....	.....
G. L. and M. W.	4	4	72.0	.285	20.52	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....
Total....	10	10	70.8	.272	18.91	.....	.....	.....	2	4	1	2	1	.....	.....	.....
1913.																
Pittsburgh.....	6	6	69.7	.280	19.31	.....	.....	.....	.....	3	1	2	.....	.....	.....	.....
G. L. and M. W.	4	4	72.0	.336	24.16	.....	.....	.....	.....	1	1	1	1	.....	.....	.....
Total....	10	10	70.6	.302	21.25	.....	.....	.....	.....	4	2	3	1	.....	.....	.....

STOPPER SETTERS.

1912.																
Pittsburgh.....	6	30	47.9	\$0.459	\$21.09	.....	.....	.....	.....	.....	.....	11	12	3	4	.....
G. L. and M. W.	4	12	61.0	.588	33.79	.....	.....	.....	.....	.....	.....	3	3	.....	.....	6
Total....	10	42	51.7	.496	25.36	.....	.....	.....	.....	.....	.....	14	15	3	4	6
1913.																
Pittsburgh.....	6	31	47.9	.534	25.61	.....	.....	.....	.....	.....	.....	6	10	.....	9	6
G. L. and M. W.	4	12	61.0	.617	35.48	.....	.....	.....	.....	.....	.....	2	2	2	.....	6
Total....	10	43	51.6	.558	28.37	.....	.....	.....	.....	.....	.....	8	12	2	9	12

STEEL POURERS.

1912.																
Pittsburgh.....	6	18	47.9	\$0.649	\$31.09	.....	.....	.....	.....	.....	.....	.....	5	4	1	8
G. L. and M. W.	4	16	64.5	.482	30.16	.....	.....	.....	.....	.....	2	.....	8	6	.....	.....
Total....	10	34	55.7	.570	30.65	.....	.....	.....	.....	.....	2	.....	13	10	1	8
1913.																
Pittsburgh.....	6	18	47.9	.737	35.27	.....	.....	.....	.....	.....	.....	.....	1	5	.....	12
G. L. and M. W.	4	16	64.5	.517	32.44	.....	.....	.....	.....	.....	.....	6	.....	6	3	1
Total....	10	34	55.7	.633	33.94	.....	.....	.....	.....	.....	.....	6	1	11	3	13

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BESSEMER CONVERTERS—Concluded.

MOLD CAPPERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Pittsburgh.....	6	32	53.8	\$0.355	\$18.10				3	3	2		16	2	6	
G. L. and M. W.	4	20	73.8	.215	15.84				2	6	6					
Total.....	10	52	61.5	.301	17.23				5	9	8	6	16	2	6	
1913.																
Pittsburgh.....	6	41	52.6	.406	20.64					2	6	7	17	9		
G. L. and M. W.	4	20	73.8	.266	19.55				4	10		6				
Total.....	10	61	59.5	.360	20.28				4	12	6	13	17	9		

INGOT STRIPPERS.

1912.																
Pittsburgh.....	6	16	63.4	\$0.374	\$22.42						8	2		6		
G. L. and M. W.	4	12	76.0	.248	18.86					8	4					
Total.....	10	28	68.8	.320	20.90					8	12	2		6		
1913.																
Pittsburgh.....	6	16	66.0	.364	23.23					8			8			
G. L. and M. W.	4	12	75.0	.296	22.24					8	4					
Total.....	10	28	69.9	.334	22.81					16	4	8				

LABORERS.

1912.																
Pittsburgh.....	6	426	75.2	\$0.168	\$12.64		26	400								
G. L. and M. W.	4	194	77.1	.166	12.77		16	178								
Total.....	10	620	75.8	.167	12.68		42	578								
1913.																
Pittsburgh.....	6	474	75.5	.192	14.52			84	257	133						
G. L. and M. W.	4	207	74.1	.190	14.05			51	97	59						
Total.....	10	681	75.1	.192	14.38			135	354	192						

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BESSEMER CONVERTERS.

[The figures for each group of years are for identical plants.]

NUMBER.

Occupation, and number of plants.	Year.	Number of employ-ees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Stockers:											
9 plants.....	1907	371	62.5	171	.....	18	.....	28	27	83	44
	1908	260	58.3	150	4	24	.....	.....	27	25	30
	1909	266	63.6	114	.....	16	.....	4	33	60	39
	1910	350	64.9	114	31	.....	25	.....	68	20	92
10 plants.....	1910	352	64.9	114	31	.....	27	.....	68	20	92
	1911	241	61.7	111	.....	15	2	.....	57	26	30
	1912	268	62.0	123	.....	20	2	18	21	48	36
10 plants.....	1912	280	62.1	125	6	20	2	18	23	42	44
	1913	337	62.5	77	72	.....	2	29	92	45	20
Cupola melters:											
7 plants.....	1907	15	65.2	6	.....	.....	.....	2	3	2	1 2
	1908	15	64.7	6	.....	.....	.....	2	3	2	2
	1909	15	64.7	6	.....	.....	.....	2	3	2	2
	1910	16	60.6	6	3	.....	.....	.....	3	2	2
	1911	15	64.3	6	.....	.....	.....	2	3	2	2
8 plants.....	1911	17	65.2	6	.....	.....	.....	2	5	2	2
	1912	18	61.6	9	.....	.....	.....	2	3	2	2
	1913	19	62.4	6	3	.....	.....	2	4	2	2
Cupola tappers:											
8 plants.....	1907	50	60.5	27	.....	.....	.....	4	9	6	4
	1908	43	59.3	24	.....	.....	.....	2	13	2	2
	1909	43	61.5	24	.....	.....	.....	.....	5	8	6
	1910	56	58.9	36	.....	.....	.....	.....	7	8	5
	1911	41	59.3	24	.....	.....	.....	.....	11	2	4
9 plants.....	1911	45	60.4	24	.....	.....	.....	.....	15	2	4
	1912	48	60.6	27	.....	.....	.....	2	5	10	4
	1913	69	59.5	21	18	.....	.....	4	16	10	.....
Blowers:											
9 plants.....	1907	20	65.4	6	.....	.....	.....	2	10	2	.....
	1908	19	68.8	3	.....	.....	.....	2	12	2	.....
	1909	19	68.8	3	.....	.....	.....	2	12	2	.....
	1910	20	69.8	3	.....	.....	.....	.....	12	3	2
	1911	18	71.9	.....	.....	.....	.....	2	16	.....	.....
10 plants.....	1911	20	72.0	.....	.....	.....	.....	2	18	.....	.....
	1912	21	69.1	3	.....	.....	.....	2	14	2	.....
	1913	23	63.2	6	3	.....	.....	2	10	2	.....
Regulators, first:											
9 plants.....	1907	26	62.3	12	.....	.....	.....	2	8	2	2
	1908	25	64.7	9	.....	.....	.....	4	8	2	2
	1909	25	64.8	9	.....	.....	.....	2	10	2	2
	1910	29	61.4	6	9	.....	.....	.....	10	.....	4
10 plants.....	1910	31	62.1	6	9	.....	.....	.....	12	.....	4
	1911	24	66.8	6	.....	.....	.....	4	12	.....	2
	1912	25	64.7	9	.....	.....	.....	4	8	2	2
10 plants.....	1912	24	68.5	6	.....	.....	.....	2	6	8	2
	1913	24	67.6	6	.....	.....	.....	2	8	8	.....
Regulators, second:											
6 plants.....	1907	18	65.3	6	.....	.....	.....	2	6	4	.....
	1908	14	73.5	.....	.....	.....	.....	4	6	4	.....
	1909	14	73.8	.....	.....	.....	.....	2	8	4	.....
	1910	18	66.7	6	.....	.....	.....	.....	8	.....	4
8 plants.....	1910	22	67.5	6	.....	.....	.....	2	10	.....	4
	1911	21	65.0	6	.....	.....	.....	4	11	.....	.....
	1912	23	63.5	9	.....	.....	.....	.....	6	4	.....
9 plants.....	1912	24	67.0	6	.....	.....	.....	4	8	6	.....
	1913	24	67.0	6	.....	.....	.....	4	8	6	.....

¹ Including 1 employee whose full-time hours per week were 91.

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BESSEMER CONVERTERS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employ-ees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Vessel men:											
9 plants.....	1907	23	58.5	12	3	.....	.....	.....	2	4	2
	1908	22	61.1	9	3	.....	.....	.....	4	4	2
	1909	22	61.2	9	3	.....	.....	.....	4	4	2
	1910	24	56.6	12	6	.....	.....	.....	2	.....	4
10 plants.....	1910	26	57.8	12	6	.....	.....	.....	4	.....	4
	1911	25	59.1	12	3	.....	.....	.....	6	2	2
	1912	26	57.3	15	3	.....	.....	.....	2	4	2
10 plants.....	1912	26	58.3	9	9	.....	.....	.....	2	4	2
	1913	26	57.4	9	9	.....	.....	.....	4	4	.....
Vessel men's helpers:											
9 plants.....	1907	47	57.0	24	9	.....	.....	.....	4	8	2
	1908	45	59.5	18	9	.....	.....	.....	8	8	2
	1909	45	59.6	18	9	.....	.....	.....	8	8	2
	1910	49	55.3	24	15	.....	.....	.....	4	.....	6
10 plants.....	1910	53	56.5	24	15	.....	.....	.....	8	.....	6
	1911	51	57.6	24	9	.....	.....	.....	12	4	2
	1912	53	55.9	30	9	.....	.....	.....	4	8	2
10 plants.....	1912	53	56.5	24	15	.....	.....	.....	4	8	2
	1913	53	56.0	24	15	.....	.....	4	6	4	.....
Cinder pitmen:											
8 plants.....	1907	118	67.9	24	.....	.....	.....	44	38	4	8
	1908	71	65.9	21	.....	.....	.....	12	28	10	.....
	1909	92	68.4	21	.....	.....	.....	23	30	10	8
	1910	79	67.3	6	15	.....	.....	.....	40	10	8
9 plants.....	1910	85	67.6	6	15	.....	.....	.....	46	10	8
	1911	62	69.8	6	.....	.....	.....	16	34	6	.....
	1912	87	67.2	21	.....	.....	.....	.....	36	30	.....
9 plants.....	1912	99	68.1	21	.....	.....	.....	.....	46	30	2
	1913	113	67.3	27	.....	.....	.....	.....	48	36	2
Bottom makers:											
9 plants.....	1907	17	73.4	.....	.....	.....	.....	2	11	4	.....
	1908	17	72.4	.....	.....	.....	.....	4	11	2	.....
	1909	16	73.1	.....	.....	.....	.....	2	11	3	.....
	1910	17	73.5	.....	.....	.....	.....	.....	13	2	2
10 plants.....	1910	19	73.4	.....	.....	.....	.....	.....	15	2	2
	1911	19	71.8	.....	.....	.....	.....	4	15	.....	.....
	1912	20	72.5	.....	.....	.....	.....	4	14	2	.....
	1913	20	73.8	.....	.....	.....	.....	4	10	4	2
Bot om makers' helpers:											
9 plants.....	1907	30	73.5	.....	.....	.....	.....	8	14	8	.....
	1908	27	72.2	.....	.....	.....	.....	7	18	2	.....
	1909	29	73.1	.....	.....	.....	.....	8	15	6	.....
	1910	30	72.9	.....	.....	.....	.....	.....	26	2	2
10 plants.....	1910	34	72.8	.....	.....	.....	.....	.....	30	2	2
	1911	31	72.2	.....	.....	.....	.....	10	20	.....	1
	1912	31	72.2	.....	.....	.....	.....	10	19	2	.....
10 plants.....	1912	39	72.4	.....	.....	.....	.....	12	23	4	.....
	1913	40	73.1	.....	.....	.....	.....	12	18	8	2
Ladle liners:											
9 plants.....	1907	21	65.1	6	.....	.....	1	2	10	2	.....
	1908	21	65.6	6	.....	.....	1	4	8	.....	2
	1909	21	65.1	6	.....	.....	1	2	10	2	.....
	1910	23	66.3	6	.....	.....	1	.....	12	2	2
10 plants.....	1910	25	66.8	6	.....	.....	1	.....	14	2	2
	1911	24	68.3	3	.....	.....	1	4	16	.....	.....
	1912	24	68.9	3	.....	.....	1	4	14	2	.....
10 plants.....	1912	22	68.6	3	.....	.....	1	4	12	2	.....
	1913	22	68.7	3	.....	.....	1	4	10	4	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BESSEMER CONVERTERS—Continued.**NUMBER—Continued.**

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Ladle liners' helpers:											
9 plants.....	1907	39	68.2	6	.....	.....	1	10	20	2	.....
	1908	31	67.5	6	.....	.....	1	10	12	.....	2
	1909	39	68.5	6	.....	.....	1	10	18	4	.....
	1910	37	68.5	6	.....	.....	1	.....	24	4	2
10 plants.....	1910	39	68.7	6	.....	.....	1	.....	26	4	2
	1911	34	69.1	3	.....	.....	1	14	16	.....	.....
	1912	34	69.6	3	.....	.....	1	14	14	2	.....
	1913	34	69.8	3	.....	.....	1	14	10	6	.....
Stopper makers:											
9 plants.....	1907	10	72.8	.....	.....	.....	2	.....	4	3	1
	1908	9	72.9	.....	.....	.....	2	.....	4	1	2
	1909	9	71.6	.....	.....	.....	2	2	2	1	2
	1910	11	73.1	.....	.....	.....	1	.....	8	.....	2
10 plants.....	1910	12	73.0	.....	.....	.....	1	.....	9	.....	2
	1911	10	72.0	.....	.....	.....	2	.....	6	.....	2
	1912	10	70.8	.....	.....	.....	3	.....	5	.....	2
	1913	10	70.6	.....	.....	.....	1	1	8	.....	.....
Stopper setters:											
9 plants.....	1907	45	51.5	39	.....	.....	.....	.....	4	2	.....
	1908	40	54.3	30	.....	.....	.....	.....	8	2	.....
	1909	34	55.4	24	.....	.....	.....	.....	8	2	.....
	1910	37	51.5	27	6	.....	.....	.....	2	.....	2
10 plants.....	1910	39	52.6	27	6	.....	.....	.....	4	.....	2
	1911	39	55.3	27	.....	.....	.....	.....	12	.....	.....
	1912	42	51.7	36	.....	.....	.....	.....	4	2	.....
	1913	43	51.6	37	.....	.....	.....	.....	4	2	.....
Steel pourers:											
9 plants.....	1907	29	55.4	21	.....	.....	.....	.....	4	4	.....
	1908	28	57.4	18	.....	.....	.....	.....	6	4	.....
	1909	28	57.5	18	.....	.....	.....	.....	6	4	.....
	1910	30	54.5	21	3	.....	.....	.....	2	.....	4
10 plants.....	1910	32	55.6	21	3	.....	.....	.....	4	.....	4
	1911	30	55.1	21	.....	.....	.....	.....	9	.....	.....
	1912	32	54.7	24	.....	.....	.....	.....	4	4	.....
10 plants.....	1912	34	55.7	24	.....	.....	.....	.....	6	4	.....
	1913	34	55.7	24	.....	.....	.....	.....	6	4	.....
Mold cappers:											
8 plants.....	1907	48	54.5	36	.....	.....	.....	.....	8	4	.....
	1908	39	53.7	30	.....	.....	.....	.....	7	2	.....
	1909	43	54.0	33	.....	.....	.....	.....	6	4	.....
	1910	46	55.0	12	24	.....	.....	.....	4	2	4
9 plants.....	1910	52	57.0	12	24	.....	.....	.....	10	2	4
	1911	37	64.2	12	.....	.....	.....	.....	23	2	.....
	1912	44	59.5	24	.....	.....	.....	.....	14	6	.....
10 plants.....	1912	52	61.5	24	.....	.....	6	.....	14	8	.....
	1913	61	59.5	33	.....	.....	6	.....	14	8	.....
Ingot strippers:											
9 plants.....	1907	29	67.4	9	.....	.....	4	.....	6	6	4
	1908	28	68.4	6	.....	.....	6	.....	6	10	.....
	1909	28	70.2	6	.....	.....	4	.....	6	6	6
	1910	29	67.9	3	6	.....	.....	.....	8	6	6
10 plants.....	1910	31	68.1	3	6	.....	.....	.....	10	6	6
	1911	27	70.4	.....	3	.....	6	.....	12	6	.....
	1912	28	68.8	3	3	.....	4	.....	8	10	.....
	1913	28	69.9	.....	6	.....	2	.....	6	14	.....
Laborers:											
9 plants.....	1907	801	78.0	.....	.....	.....	4	22	172	266	337
	1908	425	76.2	.....	.....	.....	24	34	131	93	143
	1909	564	76.9	.....	12	.....	3	20	141	221	167
	1910	748	78.1	.....	.....	.....	22	13	242	152	1319

¹ Including 54 employees whose full-time hours per week were 85.

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BESSEMER CONVERTERS—Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Laborers—Concluded.											
10 plants	1910	786	77.8	.....	.....	.....	23	13	275	154	1 321
	1911	593	74.6	.....	.....	.....	27	25	253	215	73
	1912	626	75.7	.....	.....	1	17	29	242	174	103
10 plants	1912	620	75.8	.....	.....	1	17	30	238	164	170
	1913	681	75.1	.....	.....	.....	8	38	270	227	138

PER CENT.

Stockers:											
9 plants.....	1907	371	62.5	46.1	.....	4.9	.....	7.5	7.3	22.4	11.9
	1908	260	58.3	57.7	1.5	9.2	.....	.....	10.4	9.6	11.5
	1909	266	63.6	42.9	.....	6.0	.....	1.5	12.4	22.6	14.7
	1910	350	64.9	32.6	8.9	.....	7.1	.....	19.4	5.7	26.3
10 plants.....	1910	352	64.9	32.4	8.8	.....	7.7	.....	19.3	5.7	26.1
	1911	241	61.7	46.1	.....	6.2	.8	.....	23.7	10.8	12.4
	1912	268	62.0	45.9	.....	7.5	.7	6.7	7.8	17.9	13.4
10 plants.....	1912	280	62.1	44.6	2.1	7.1	.7	6.4	8.2	15.0	15.7
	1913	337	62.5	22.8	21.4	.....	.6	8.6	27.3	13.4	5.9
Cupola melters:											
7 plants.....	1907	15	65.2	40.0	.....	.....	.....	13.3	20.0	13.3	2 13.3
	1908	15	64.7	40.0	.....	.....	.....	13.3	20.0	13.3	13.3
	1909	15	64.7	40.0	.....	.....	.....	13.3	20.0	13.3	13.3
	1910	16	60.6	37.5	18.8	.....	.....	.....	18.8	12.5	12.5
	1911	15	64.3	40.0	.....	.....	.....	13.3	20.0	13.3	13.3
8 plants.....	1911	17	65.2	35.3	.....	.....	.....	11.8	29.4	11.8	11.8
	1912	18	61.6	50.0	.....	.....	.....	11.1	16.7	11.1	11.1
	1913	19	62.4	31.6	15.8	.....	.....	10.5	21.1	10.5	10.5
Cupola tappers:											
8 plants.....	1907	50	60.5	54.0	.....	.....	.....	8.0	18.0	12.0	8.0
	1908	43	59.3	55.8	.....	.....	.....	4.7	30.2	4.7	4.7
	1909	43	61.5	55.8	.....	.....	.....	.....	11.6	18.6	14.0
	1910	56	58.9	64.3	.....	.....	.....	.....	12.5	14.3	8.9
	1911	41	59.3	58.5	.....	.....	.....	.....	26.8	4.9	9.8
9 plants.....	1911	45	60.4	53.3	.....	.....	.....	.....	33.3	4.4	8.9
	1912	48	60.6	56.3	.....	.....	.....	4.2	10.4	20.8	8.3
	1913	69	59.5	30.4	26.1	.....	.....	5.8	23.2	14.5	.....
Blowers:											
9 plants.....	1907	20	65.4	30.0	.....	.....	.....	10.0	50.0	10.0	.....
	1908	19	68.8	15.8	.....	.....	.....	10.5	63.2	10.5	.....
	1909	19	68.8	15.8	.....	.....	.....	10.5	63.2	10.5	.....
	1910	20	69.8	15.0	.....	.....	.....	.....	60.0	15.0	10.0
	1911	18	71.9	.....	.....	.....	.....	11.1	88.9	.....	.....
10 plants.....	1911	20	72.0	.....	.....	.....	.....	10.0	90.0	.....	.....
	1912	21	69.1	14.3	.....	.....	.....	9.5	66.7	9.5	.....
	1913	23	63.2	26.1	13.0	.....	.....	8.7	43.5	8.7	.....
Regulators, first:											
9 plants.....	1907	26	62.3	46.2	.....	.....	.....	7.7	30.8	7.7	7.7
	1908	25	64.7	36.0	.....	.....	.....	16.0	32.0	8.0	8.0
	1909	25	64.8	36.0	.....	.....	.....	8.0	40.0	8.0	8.0
	1910	29	61.4	20.7	31.0	.....	.....	.....	34.5	.....	13.8
10 plants.....	1910	31	62.1	19.4	29.0	.....	.....	.....	38.7	.....	12.9
	1911	24	66.8	25.0	.....	.....	.....	16.7	50.0	.....	8.3
	1912	25	64.7	36.0	.....	.....	.....	16.0	32.0	8.0	8.0
10 plants.....	1912	24	68.5	25.0	.....	.....	.....	8.3	25.0	33.3	8.3
	1913	24	67.6	25.0	.....	.....	.....	8.3	33.3	33.3	.....

¹ Including 54 employees whose full-time hours per week were 85.² Including 6.7 per cent whose full-time hours per week were 91.

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BESSEMER CONVERTERS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Regulators, second:											
6 plants.....	1907	18	65.3	33.3	.....	.....	.....	11.1	33.3	22.2	.....
	1908	14	73.5	.....	.....	.....	.....	28.6	42.9	28.6	.....
	1909	14	73.8	.....	.....	.....	.....	14.3	57.1	28.6	.....
	1910	18	66.7	33.3	.....	.....	.....	.....	44.4	.....	22.2
8 plants.....	1910	22	67.5	27.3	.....	.....	.....	9.1	45.5	.....	18.2
	1911	21	65.0	28.6	.....	.....	.....	19.0	52.4	.....	.....
	1912	23	63.5	39.1	.....	.....	.....	17.4	26.1	17.4	.....
9 plants.....	1912	24	67.0	25.0	.....	.....	.....	16.7	33.3	25.0	.....
	1913	24	67.0	25.0	.....	.....	.....	16.7	33.3	25.0	.....
Vessel men:											
9 plants.....	1907	23	58.5	52.2	13.0	.....	.....	8.7	17.4	.....	8.7
	1908	22	61.1	40.9	13.6	.....	.....	18.2	18.2	.....	9.1
	1909	22	61.2	40.9	13.6	.....	.....	18.2	18.2	.....	9.1
	1910	24	56.6	50.0	25.0	.....	.....	8.3	.....	.....	16.7
10 plants.....	1910	26	57.8	46.2	23.1	.....	.....	15.4	.....	.....	15.4
	1911	25	59.1	48.0	12.0	.....	.....	24.0	8.0	.....	8.0
	1912	26	57.3	57.7	11.5	.....	.....	7.7	15.4	.....	7.7
10 plants.....	1912	26	58.3	34.6	34.6	.....	.....	7.7	15.4	.....	7.7
	1913	26	57.4	34.6	34.6	.....	.....	15.4	15.4	.....	.....
Vessel men's helpers:											
9 plants.....	1907	47	57.0	51.1	19.1	.....	.....	8.5	17.0	.....	4.3
	1908	45	59.5	40.0	20.0	.....	.....	17.8	17.8	.....	4.4
	1909	45	59.6	40.0	20.0	.....	.....	17.8	17.8	.....	4.4
	1910	49	55.3	49.0	30.6	.....	.....	8.2	.....	.....	12.2
10 plants.....	1910	53	56.5	45.3	28.3	.....	.....	15.1	.....	.....	11.3
	1911	51	57.6	47.1	17.6	.....	.....	23.5	7.8	.....	3.9
	1912	53	55.9	56.6	17.0	.....	.....	7.5	15.1	.....	3.8
10 plants.....	1912	53	56.5	45.3	28.3	.....	.....	7.5	15.1	.....	3.8
	1913	53	56.0	45.3	28.3	.....	.....	7.5	11.3	7.5	.....
Cinder pitmen:											
8 plants.....	1907	118	67.9	20.3	.....	.....	.....	37.3	32.2	3.4	6.8
	1908	71	65.9	29.6	.....	.....	.....	16.9	39.4	14.1	.....
	1909	92	68.4	22.8	.....	.....	.....	25.0	32.6	10.9	8.7
	1910	79	67.3	7.6	19.0	.....	.....	.....	50.6	12.7	10.1
9 plants.....	1910	85	67.6	7.1	17.6	.....	.....	.....	54.1	11.8	9.4
	1911	62	69.8	9.7	.....	.....	.....	25.8	54.8	9.7	.....
	1912	87	67.2	24.1	.....	.....	.....	.....	41.4	34.5	.....
9 plants.....	1912	99	68.1	21.2	.....	.....	.....	.....	46.5	30.3	2.0
	1913	113	67.3	23.9	.....	.....	.....	.....	42.5	31.9	1.8
Bottom makers:											
9 plants.....	1907	17	73.4	.....	.....	.....	.....	11.8	64.7	23.5	.....
	1908	17	72.4	.....	.....	.....	.....	23.5	64.7	11.8	.....
	1909	16	73.1	.....	.....	.....	.....	12.5	68.8	18.8	.....
	1910	17	73.5	.....	.....	.....	.....	.....	76.5	11.8	11.8
10 plants.....	1910	19	73.4	.....	.....	.....	.....	.....	78.9	10.5	10.5
	1911	19	71.8	.....	.....	.....	.....	21.1	78.9	.....	.....
	1912	20	72.5	.....	.....	.....	.....	20.0	70.0	10.0	.....
	1913	20	73.8	.....	.....	.....	.....	20.0	50.0	20.0	10.0
Bottom makers' helpers:											
9 plants.....	1907	30	73.5	.....	.....	.....	.....	26.7	46.7	26.7	.....
	1908	27	72.2	.....	.....	.....	.....	25.9	66.7	7.4	.....
	1909	29	73.1	.....	.....	.....	.....	27.6	51.7	20.7	.....
	1910	30	72.9	.....	.....	.....	.....	.....	86.7	6.7	6.7
10 plants.....	1910	34	72.8	.....	.....	.....	.....	.....	88.2	5.9	5.9
	1911	31	72.2	.....	.....	.....	.....	32.3	64.5	.....	3.2
	1912	31	72.2	.....	.....	.....	.....	32.3	61.3	6.5	.....
10 plants.....	1912	39	72.4	.....	.....	.....	.....	30.8	59.0	10.3	.....
	1913	40	73.1	.....	.....	.....	.....	30.0	45.0	20.0	5.0

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BESSEMER CONVERTERS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Ladle liners:											
9 plants.....	1907	21	65.1	28.6	.....	.....	4.8	9.5	47.6	9.5	.....
	1908	21	65.6	28.6	.....	.....	4.8	19.0	38.1	.....	9.5
	1909	21	65.1	28.6	.....	.....	4.8	9.5	47.6	9.5	.....
	1910	23	66.3	26.1	.....	.....	4.3	.....	52.2	8.7	8.7
10 plants.....	1910	25	66.8	24.0	.....	.....	4.0	.....	56.0	8.0	8.0
	1911	24	68.3	12.5	.....	.....	4.2	16.7	66.7	.....	.....
	1912	24	68.9	12.5	.....	.....	4.2	16.7	58.3	8.3	.....
10 plants.....	1912	22	68.6	13.6	.....	.....	4.5	18.2	54.5	9.1	.....
	1913	22	68.7	13.6	.....	.....	4.5	18.2	45.5	18.2	.....
Ladle liners' helpers:											
9 plants.....	1907	39	68.2	15.4	.....	.....	2.6	25.6	51.3	5.1	.....
	1908	31	67.5	19.4	.....	.....	3.2	32.3	38.7	.....	6.5
	1909	39	68.5	15.4	.....	.....	2.6	25.6	46.2	10.3	.....
	1910	37	68.5	16.2	.....	.....	2.7	.....	64.9	10.8	5.4
10 plants.....	1910	39	68.7	15.4	.....	.....	2.6	.....	66.7	10.3	5.1
	1911	34	69.1	8.8	.....	.....	2.9	41.2	47.1	.....	.....
	1912	34	69.6	8.8	.....	.....	2.9	41.2	41.2	5.9	.....
	1913	34	69.8	8.8	.....	.....	2.9	41.2	29.4	17.6	.....
Stopper makers:											
9 plants.....	1907	10	72.8	.....	.....	.....	20.0	.....	40.0	30.0	10.0
	1908	9	72.9	.....	.....	.....	22.2	.....	44.4	11.1	22.2
	1909	9	71.6	.....	.....	.....	22.2	22.2	22.2	11.1	22.2
	1910	11	73.1	.....	.....	.....	9.1	.....	72.7	.....	18.2
10 plants.....	1910	12	73.0	.....	.....	.....	8.3	.....	75.0	.....	16.7
	1911	10	72.0	.....	.....	.....	20.0	.....	60.0	.....	20.0
	1912	10	70.8	.....	.....	.....	30.0	.....	50.0	.....	20.0
	1913	10	70.6	.....	.....	.....	10.0	10.0	80.0	.....	.....
Stopper setters:											
9 plants.....	1907	45	51.5	86.7	.....	.....	.....	.....	8.9	4.4	.....
	1908	40	54.3	75.0	.....	.....	.....	.....	20.0	5.0	.....
	1909	34	55.4	70.6	.....	.....	.....	.....	23.5	5.9	.....
	1910	37	51.5	73.0	16.2	.....	.....	.....	5.4	.....	5.4
10 plants.....	1910	39	52.6	69.2	15.4	.....	.....	.....	10.3	.....	5.1
	1911	39	55.3	69.2	.....	.....	.....	.....	30.8	.....	.....
	1912	42	51.7	85.7	.....	.....	.....	.....	9.5	4.8	.....
	1913	43	51.6	86.0	.....	.....	.....	.....	9.3	4.7	.....
Steel pourers:											
9 plants.....	1907	29	55.4	72.4	.....	.....	.....	.....	13.8	13.8	.....
	1908	28	57.4	64.3	.....	.....	.....	.....	21.4	14.3	.....
	1909	28	57.5	64.3	.....	.....	.....	.....	21.4	14.3	.....
	1910	30	54.5	70.0	10.0	.....	.....	.....	6.7	.....	13.3
10 plants.....	1910	32	55.6	65.6	9.4	.....	.....	.....	12.5	.....	12.5
	1911	30	55.1	70.0	.....	.....	.....	.....	30.0	.....	.....
	1912	32	54.7	75.0	.....	.....	.....	.....	12.5	12.5	.....
10 plants.....	1912	34	55.7	70.6	.....	.....	.....	.....	17.6	11.8	.....
	1913	34	55.7	70.6	.....	.....	.....	.....	17.6	11.8	.....
Mold cappers:											
8 plants.....	1907	48	54.5	75.0	.....	.....	.....	.....	16.7	8.3	.....
	1908	39	53.7	76.9	.....	.....	.....	.....	17.9	5.1	.....
	1909	43	54.0	76.7	.....	.....	.....	.....	14.0	9.3	.....
	1910	46	55.0	26.1	52.2	.....	.....	.....	8.7	4.3	8.7
9 plants.....	1910	52	57.0	23.1	46.2	.....	.....	.....	19.2	3.8	7.7
	1911	37	64.2	32.4	.....	.....	.....	.....	62.2	5.4	.....
	1912	44	59.5	54.5	.....	.....	.....	.....	31.8	13.6	.....
10 plants.....	1912	52	61.5	46.2	.....	.....	.....	11.5	26.9	15.4	.....
	1913	61	59.5	54.1	.....	.....	.....	9.8	23.0	13.1	.....
Ingot strippers:											
9 plants.....	1907	29	67.4	31.0	.....	.....	.....	13.8	20.7	20.7	13.8
	1908	28	68.4	21.4	.....	.....	.....	21.4	21.4	35.7	.....
	1909	28	70.2	21.4	.....	.....	.....	14.3	21.4	21.4	21.4
	1910	29	67.9	10.3	20.7	.....	.....	.....	27.6	20.7	20.7

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BESSEMER CONVERTERS—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Ingot strippers—Concluded. 10 plants.....	1910	31	68.1	9.7	19.4	.....	.....	.....	32.3	19.4	19.4
	1911	27	70.4	.....	11.1	.....	.....	22.2	44.4	22.2	.....
	1912	28	68.8	10.7	10.7	.....	.....	14.3	28.6	35.7	.....
	1913	28	69.9	.....	21.4	.....	.....	7.1	21.4	50.0	.....
Laborers: 9 plants.....	1907	801	78.0	.....	.....	.....	0.5	2.7	21.5	33.2	42.1
	1908	425	76.2	.....	.....	.....	5.6	8.0	30.8	21.9	33.6
	1909	564	76.9	.....	2.1	.....	.5	3.5	25.0	39.2	29.6
	1910	748	78.1	.....	.....	.....	2.9	1.7	32.4	20.3	42.6
10 plants.....	1910	786	77.8	.....	.....	.....	2.9	1.7	35.0	19.6	40.8
	1911	593	74.6	.....	.....	.....	4.6	4.2	42.7	36.3	12.3
	1912	626	75.7	.....	.....	0.2	2.7	4.6	38.7	27.8	26.0
10 plants.....	1912	620	75.8	.....	.....	.2	2.7	4.8	38.4	26.5	27.4
	1913	681	75.1	.....	.....	.....	1.2	5.6	39.6	33.3	20.3

¹ Including 7.2 per cent whose full-time hours per week were 85.

² Including 6.9 per cent whose full-time hours per week were 85.

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BESSEMER CONVERTERS.

STOCKERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Pittsburgh.....	6	231	59.4	125	6	20	.....	18	4	14	44
Great Lakes and Middle West.....	4	49	74.5	.....	.....	.....	2	.....	19	28	.....
Total.....	10	280	62.1	125	6	20	2	18	23	42	44
1913.											
Pittsburgh.....	6	279	60.2	77	72	.....	.....	29	62	19	20
Great Lakes and Middle West.....	4	58	73.8	.....	.....	.....	2	.....	30	26	.....
Total.....	10	337	62.5	77	72	.....	2	29	92	45	20

CUPOLA MELTERS.

1912.											
Pittsburgh.....	5	13	57.2	9	.....	.....	.....	2	.....	.....	2
Great Lakes and Middle West.....	3	5	73.2	.....	.....	.....	.....	.....	3	2	.....
Total.....	8	18	61.6	9	.....	.....	.....	2	3	2	2
1913.											
Pittsburgh.....	5	13	57.5	6	3	.....	.....	2	.....	.....	2
Great Lakes and Middle West.....	3	6	73.0	.....	.....	.....	.....	.....	4	2	.....
Total.....	8	19	62.4	6	3	.....	.....	2	4	2	2

CUPOLA TAPPERS.

1912.											
Pittsburgh.....	5	33	53.7	27	.....	.....	.....	2	.....	.....	4
Great Lakes and Middle West.....	4	15	75.6	.....	.....	.....	.....	.....	5	10	.....
Total.....	9	48	60.6	27	.....	.....	.....	2	5	10	4
1913.											
Pittsburgh.....	5	53	54.8	21	18	.....	.....	4	10	.....	.....
Great Lakes and Middle West.....	4	16	75.4	.....	.....	.....	.....	.....	6	10	.....
Total.....	9	69	59.5	21	18	.....	.....	4	16	10	.....

BLOWERS.

1912.											
Pittsburgh.....	6	13	66.4	3	.....	.....	.....	2	8	.....	.....
Great Lakes and Middle West.....	4	8	73.5	.....	.....	.....	.....	.....	6	2	.....
Total.....	10	21	69.1	3	.....	.....	.....	2	14	2	.....
1913.											
Pittsburgh.....	6	15	57.7	6	3	.....	.....	2	4	.....	.....
Great Lakes and Middle West.....	4	8	73.5	.....	.....	.....	.....	.....	6	2	.....
Total.....	10	23	63.2	6	3	.....	.....	2	10	2	.....

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BESSEMER CONVERTERS—Continued.

REGULATORS, FIRST.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Pittsburgh.....	6	14	62.6	6				2	2	4	
Great Lakes and Middle West....	4	10	76.8						4	4	2
Total.....	10	24	68.5	6				2	6	8	2
1913.											
Pittsburgh.....	6	14	62.7	6				2	2	4	
Great Lakes and Middle West....	4	10	74.4						6	4	
Total.....	10	24	67.6	6				2	8	8	

REGULATORS, SECOND.

1912.											
Pittsburgh.....	6	14	61.7	6				4	2	2	
Great Lakes and Middle West....	3	10	74.4						6	4	
Total.....	9	24	67.0	6				4	8	6	
1913.											
Pittsburgh.....	6	14	61.6	6				4	2	2	
Great Lakes and Middle West....	3	10	74.4						6	4	
Total.....	9	24	67.0	6				4	8	6	

VESSEL MEN.

1912.											
Pittsburgh.....	6	17	52.5	9	6					2	
Great Lakes and Middle West....	4	9	69.3		3				2		2
Total.....	10	26	58.3	9	9				2	4	2
1913.											
Pittsburgh.....	6	17	52.5	9	6					2	
Great Lakes and Middle West....	4	9	66.7		3				4	2	
Total.....	10	26	57.4	9	9				4	4	

VESSEL MEN'S HELPERS.

1912.											
Pittsburgh.....	6	34	51.7	24	6					4	
Great Lakes and Middle West....	4	19	65.1		9				4	4	2
Total.....	10	53	56.5	24	15				4	8	2
1913.											
Pittsburgh.....	6	34	51.6	24	6			4			
Great Lakes and Middle West....	4	19	63.8		9				6	4	
Total.....	10	53	56.0	24	15			4	6	4	

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BESSEMER CONVERTERS—
Continued.**CINDER PITMEN.**

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—								
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84	
1912.												
Pittsburgh.....	5	66	64.6	21						30	15	
Great Lakes and Middle West....	4	33	75.1							16	15	2
Total.....	9	99	68.1	21						46	30	2
1913.												
Pittsburgh.....	5	77	64.0	27						26	24	
Great Lakes and Middle West....	4	36	74.3							22	12	2
Total.....	9	113	67.3	27						48	36	2

BOTTOM MAKERS.

1912.											
Pittsburgh.....	6	12	71.8	.....	.....	.....	.....	4	8	.....	.....
Great Lakes and Middle West...	4	8	73.5	.....	.....	.....	.....	.....	6	2	.....
Total.....	10	20	72.5	.....	.....	.....	.....	4	14	2	.....
1913.											
Pittsburgh.....	6	12	73.9	.....	.....	.....	.....	4	4	2	2
Great Lakes and Middle West...	4	8	73.5	.....	.....	.....	.....	.....	6	2	.....
Total.....	10	20	73.8	.....	.....	.....	.....	4	10	4	2

BOTTOM MAKERS' HELPERS.

1912.											
Pittsburgh.....	6	26	71.7	.....	.....	.....	.....	12	14	.....	.....
Great Lakes and Middle West...	4	13	73.8	.....	.....	.....	.....	.....	9	4	.....
Total.....	10	39	72.4	.....	.....	.....	.....	12	23	4	.....
1913.											
Pittsburgh.....	6	26	72.8	.....	.....	.....	.....	12	8	4	2
Great Lakes and Middle West...	4	14	73.7	.....	.....	.....	.....	.....	10	4	.....
Total.....	10	40	73.1	.....	.....	.....	.....	12	18	8	2

LADLE LINERS.

1912.											
Pittsburgh.....	6	12	71.8	.....	.....	.....	.....	4	8	.....	.....
Great Lakes and Middle West...	4	10	64.8	3	.....	.....	1	.....	4	2	.....
Total.....	10	22	68.6	3	.....	.....	1	4	12	2	.....
1913.											
Pittsburgh.....	6	12	71.9	.....	.....	.....	.....	4	6	2	.....
Great Lakes and Middle West...	4	10	64.8	3	.....	.....	1	.....	4	2	.....
Total.....	10	22	68.7	3	.....	.....	1	4	10	4	.....

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BESSEMER CONVERTERS—
Continued.

LADLE LINERS' HELPERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							84
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	
1912.											
Pittsburgh.....	6	24	71.6	.....	.....	.....	.....	14	10	.....	.....
Great Lakes and Middle West...	4	10	64.8	3	.....	.....	1	.....	4	2	.....
Total.....	10	34	69.6	3	.....	.....	1	14	14	2	.....
1913.											
Pittsburgh.....	6	24	71.8	.....	.....	.....	.....	14	6	4	.....
Great Lakes and Middle West...	4	10	64.8	3	.....	.....	1	.....	4	2	.....
Total.....	10	34	69.8	3	.....	.....	1	14	10	6	.....

STOPPER MAKERS.

1912.										
Pittsburgh.....	6	6	70.0	.....	.....	.....	3	.....	1	.....
Great Lakes and Middle West...	4	4	72.0	.....	.....	.....	.....	.....	4	.....
Total.....	10	10	70.8	.....	.....	.....	3	.....	5	2
1913.										
Pittsburgh.....	6	6	69.7	.....	.....	.....	1	1	4	.....
Great Lakes and Middle West...	4	4	72.0	.....	.....	.....	.....	.....	4	.....
Total.....	10	10	70.6	.....	.....	.....	1	1	8	.....

STOPPER SETTERS.

1912.										
Pittsburgh.....	6	30	47.9	30	.....	.....	.....	.....	.....	.....
Great Lakes and Middle West...	4	12	61.0	6	.....	.....	.....	.....	4	2
Total.....	10	42	51.7	36	.....	.....	.....	.....	4	2
1913.										
Pittsburgh.....	6	31	47.9	31	.....	.....	.....	.....	.....	.....
Great Lakes and Middle West...	4	12	61.0	6	.....	.....	.....	.....	4	2
Total.....	10	43	51.6	37	.....	.....	.....	.....	4	2

STEEL POURERS.

1912.										
Pittsburgh.....	6	18	47.9	18	.....	.....	.....	.....	.....	.....
Great Lakes and Middle West...	4	16	64.5	6	.....	.....	.....	.....	6	4
Total.....	10	34	55.7	24	.....	.....	.....	.....	6	4
1913.										
Pittsburgh.....	6	18	47.9	18	.....	.....	.....	.....	.....	.....
Great Lakes and Middle West...	4	16	64.5	6	.....	.....	.....	.....	6	4
Total.....	10	34	55.7	24	.....	.....	.....	.....	6	4

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BESSEMER CONVERTERS—Concluded.

MOLD CAPPERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Pittsburgh.....	6	32	53.8	24	.....	.....	.....	6	2	.....	.....
Great Lakes and Middle West...	4	20	73.8	.....	.....	.....	.....	.....	12	8	.....
Total.....	10	52	61.5	24	.....	.....	.....	6	14	8	.....
1913.											
Pittsburgh.....	6	41	52.6	33	.....	.....	.....	6	2	.....	.....
Great Lakes and Middle West...	4	20	73.8	.....	.....	.....	.....	.....	12	8	.....
Total.....	10	61	59.5	33	.....	.....	.....	6	14	8	.....

INGOT STRIPPERS.

1912.											
Pittsburgh.....	6	16	63.4	3	3	.....	.....	4	6	.....	.....
Great Lakes and Middle West...	4	12	76.0	.....	.....	.....	.....	.....	2	10	.....
Total.....	10	28	68.8	3	3	.....	.....	4	8	10	.....
1913.											
Pittsburgh.....	6	16	66.0	.....	6	.....	.....	2	2	6	.....
Great Lakes and Middle West...	4	12	75.0	.....	.....	.....	.....	.....	4	8	.....
Total.....	10	28	69.9	.....	6	.....	.....	2	6	14	.....

LABORERS.

1912.											
Pittsburgh.....	6	426	75.2	.....	.....	1	13	30	155	125	102
Great Lakes and Middle West...	4	194	77.1	.....	.....	.....	4	.....	83	39	68
Total.....	10	620	75.8	.....	.....	1	17	30	238	164	170
1913.											
Pittsburgh.....	6	474	75.5	.....	.....	.....	5	38	123	194	114
Great Lakes and Middle West...	4	207	74.1	.....	.....	.....	3	.....	147	33	24
Total.....	10	681	75.1	.....	.....	.....	8	38	270	227	138

OPEN-HEARTH FURNACES.

SUMMARY.

Summary figures relating to the open-hearth furnace department of the iron and steel industry are given with figures for other departments in the introductory summary on pages 5 to 15. An explanation of the scope of the investigation and of the methods employed is given on pages 15 to 23.

Briefly stated, in 1913 the average rate of wages or earnings per hour of employees in the principal productive occupations in open-hearth furnaces was from 8.8 per cent to 13.4 per cent higher than in any one of the three years preceding, and, as the average full-time hours per week in 1913 were also higher, the average full-time weekly earnings in 1913 were from over 10 per cent to nearly 17 per cent higher than in any one of the three years preceding.

The most significant facts concerning the several open-hearth occupations which are covered in this section of the report are summarized in the table following. Data are presented for the years 1910, 1911, 1912, and 1913, figures for identical plants being grouped together. The data for 1913 represents 3,498 open-hearth furnace employees in the 15 occupations covered, and were obtained from 17 plants, having 182 furnaces in operation.

Referring to the first occupation presented, door operators, direct comparison can be made of data for 15 identical plants from 1910 to 1912, inclusive, and for another group of 15 plants for 1912 and 1913. The first line of the table is analyzed as follows: In 1910 the 15 open-hearth furnaces for which reports were obtained employed 165 door operators, whose average full-time hours of work were 75.9 per week. For 12.1 per cent of the 165 door operators the full-time hours per week were over 60 and under 72; for 38.2 per cent, 72; for 21.8 per cent, over 72 and under 84; and for 27.9 per cent, 84. The average rate of wages or earnings per hour of door operators in the year considered (1910) was \$0.101. Of the total number 51.5 per cent received under 10 cents per hour; 31.5 per cent, 10 and under 12 cents; 8.5 per cent, 12 and under 14 cents; and 8.5 per cent, 14 and under 16 cents per hour. The other lines of the table may be read in the same manner.

Referring to the last column of the table, it is seen that in 15 plants the average full-time weekly earnings of the door operators were \$7.72 in both 1910 and 1912, decreasing to \$7.53 in 1911, while in the

second group of 15 plants the average was \$7.68 in 1912 and \$8.68 in 1913. Comparing the average full-time weekly earnings for 1913 of the several occupations, it is seen that with the exception of door operators, who are usually boys, the lowest average was that of laborers, which was \$14.24, and the highest that of melters' helpers, first, which was \$33.89.

In this table occupations are grouped according to the wages paid, beginning with the lowest-paid group, and the occupations in each group are presented in alphabetical order.

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—OPEN-HEARTH FURNACES.

[The figures for each group of years are for identical plants.]

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—				Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.	
				60 and under.	Over 60 and under 72	72	Over 72 and under 84		7 and under 8 cts.	8 and under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.		
Door operators:															
15 plants.....	1910	165	75.9	.....	12.1	38.2	21.8	27.9	\$0.101	6.1	45.4	31.5	8.5	8.5	\$7.72
	1911	160	75.5	.....	21.3	23.8	31.3	23.8	.100	6.3	40.0	33.8	15.0	.....	7.53
	1912	157	76.0	.....	20.4	28.0	21.0	30.6	.102	6.4	32.5	44.6	16.6	.....	7.72
15 plants.....	1912	155	76.4	.....	20.6	24.5	21.3	33.5	.100	6.5	35.4	45.2	12.9	.....	7.68
	1913	160	76.9	.....	20.0	18.8	27.5	33.8	.112	.....	32.6	30.0	25.0	12.5	8.68
										12 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and over.	
Laborers:															
17 plants.....	1910	1,038	74.5	9.7	20.4	13.2	35.2	21.6	.157	44.7	55.4	.....	.....	.....	11.69
	1911	806	73.2	11.1	23.8	14.5	37.0	13.5	.161	34.1	63.5	2.4	.....	.....	11.78
	1912	897	74.4	12.1	12.8	14.6	43.7	16.8	.163	22.1	75.4	2.6	.....	.....	12.10
17 plants.....	1912	948	74.7	11.1	13.2	16.8	38.5	20.5	.164	21.7	70.3	8.1	.....	.....	12.21
	1913	1,109	76.2	8.3	5.5	25.3	30.9	30.0	.187	6.0	29.1	19.3	45.6	.....	14.24
Melters' helpers, third:															
17 plants.....	1910	393	76.5	.....	7.6	35.9	29.5	27.0	.196	3.6	38.4	16.8	41.2	.....	14.97
	1911	394	73.9	.....	19.8	36.5	36.0	7.6	.185	21.1	21.6	23.9	33.2	.3	13.67
	1912	414	75.4	.....	6.8	30.4	46.4	16.4	.199	17.6	13.5	15.2	44.9	8.7	15.01
16 plants.....	1912	390	75.8	.....	2.1	28.2	50.3	19.5	.200	18.7	13.3	11.0	47.7	9.2	15.17
	1913	416	77.6	.....	1.0	26.0	39.9	33.2	.217	4.8	7.5	13.9	53.1	20.7	16.86
Stockers:															
17 plants.....	1910	448	76.8	.....	13.4	23.9	34.4	28.3	.177	32.8	18.5	17.0	31.7	.....	13.69
	1911	419	74.4	3.1	26.0	24.3	27.7	18.9	.172	37.7	24.6	33.9	3.8	.....	12.73
	1912	403	76.6	.....	6.5	30.3	38.5	24.8	.176	31.3	39.5	6.9	17.9	4.5	13.49
17 plants.....	1912	413	77.0	.....	7.3	24.7	40.0	28.1	.176	31.5	37.5	13.1	13.6	4.4	13.51
	1913	417	77.8	.....	7.7	21.6	40.0	30.7	.197	1.4	29.3	29.5	32.1	7.7	15.30
Switchmen:															
14 plants.....	1910	109	77.3	.....	6.4	22.0	44.0	27.5	.185	11.0	32.1	31.2	25.7	.....	14.29
	1911	113	74.5	.....	36.3	19.5	35.4	8.8	.187	5.3	25.7	46.0	23.0	.....	13.90
15 plants.....	1911	117	74.4	.....	38.5	18.8	34.2	8.5	.186	6.8	24.8	44.4	23.9	.....	13.85
	1912	112	74.6	.....	16.1	28.6	46.4	8.9	.198	5.4	17.9	41.1	28.6	7.1	14.75
15 plants.....	1912	118	75.2	.....	15.3	18.6	55.9	10.2	.199	5.1	15.3	44.1	28.8	6.8	14.92
	1913	117	76.8	.....	15.4	14.5	49.6	20.5	.230	1.7	6.8	3.4	56.4	31.6	17.63

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—OPEN-HEARTH FURNACES—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				60 and under.	Over 60 and under 72	72	Over 72 and under 84	84		Under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 cts. and over.	
Charging-machine operators:															
17 plants.....	1910	73	76.8	.....	8.2	34.2	27.4	30.1	\$0.294	5.5	2.7	47.9	35.6	8.2	\$22.52
	1911	72	74.7	.....	25.0	25.0	33.3	16.7	.287	11.2	13.9	36.1	30.6	8.3	21.37
	1912	72	75.5	.....	13.9	38.9	25.0	22.2	.312	5.6	2.8	22.2	69.4	.....	23.56
17 plants.....	1912	72	75.8	.....	13.9	36.1	25.0	25.0	.312	5.6	2.8	19.4	72.2	.....	23.67
	1913	76	78.0	.....	13.2	15.8	31.6	39.5	.335	.....	5.3	26.3	55.3	13.2	26.12
Engineers, locomotive:															
14 plants.....	1910	107	77.3	.....	5.6	23.4	44.9	26.2	.244	9.4	48.6	36.4	5.6	.....	18.92
	1911	110	74.4	.....	35.5	20.0	36.4	8.2	.248	5.4	40.9	51.8	1.8	.....	18.40
15 plants.....	1911	114	74.3	.....	37.7	19.3	35.1	7.9	.247	7.0	39.5	51.8	1.8	.....	18.32
	1912	111	75.2	.....	14.4	19.8	57.7	8.1	.261	7.2	23.4	51.4	18.0	.....	19.61
15 plants.....	1912	117	75.8	.....	13.7	10.3	66.7	9.4	.262	6.8	22.2	53.8	17.1	.....	19.86
	1913	114	76.8	.....	14.0	14.9	50.9	20.2	.293	3.6	12.3	36.0	48.2	.....	22.50
Ingot strippers:															
15 plants.....	1910	46	73.7	6.5	21.7	30.4	17.4	23.9	.275	8.6	41.3	21.7	21.7	6.5	19.88
	1911	51	71.9	5.9	7.8	62.7	19.6	3.9	.256	39.2	13.7	21.6	19.6	5.9	18.06
	1912	49	72.4	6.1	.....	69.4	20.4	4.1	.281	8.2	40.8	12.2	32.7	6.1	20.00
15 plants.....	1912	55	72.9	5.5	.....	69.1	18.2	7.3	.278	3.6	47.3	14.5	29.1	5.5	19.99
	1913	61	74.5	4.9	.....	45.9	29.5	19.7	.296	3.3	4.9	55.7	26.2	9.8	21.85
Ladle cranimen:															
16 plants.....	1910	90	77.2	.....	8.9	27.8	31.1	32.2	.294	6.7	22.2	21.1	43.3	6.7	22.76
	1911	86	74.6	.....	24.4	33.7	23.3	18.6	.287	8.1	16.3	39.5	27.9	8.1	21.32
	1912	90	76.2	.....	10.0	32.2	31.1	26.7	.317	6.7	7.8	.....	85.6	.....	24.22
17 plants.....	1912	88	76.0	.....	10.2	33.0	31.8	25.0	.317	6.8	8.0	2.3	83.0	.....	24.14
	1913	90	77.2	.....	8.9	17.8	44.4	28.9	.341	.....	8.9	6.7	80.0	4.4	26.34
Melters' helpers, second:															
17 plants.....	1910	339	76.6	.....	8.3	38.1	22.4	31.3	.272	5.3	24.8	40.4	29.5	.....	20.87
	1911	335	74.5	.....	35.2	21.2	20.9	22.7	.263	7.5	31.9	33.8	21.8	.....	19.62
	1912	347	75.8	.....	19.6	37.2	14.4	28.8	.274	6.3	20.7	44.4	28.5	.....	20.77
17 plants.....	1912	345	76.1	.....	19.7	34.5	14.5	31.3	.275	5.7	18.6	47.0	28.7	.....	20.98
	1913	360	76.7	.....	19.4	29.4	13.9	37.2	.292	1.1	21.7	30.0	46.7	.....	22.36
Mold cappers:															
8 plants.....	1910	40	76.5	.....	.....	55.0	15.0	30.0	.217	35.0	35.0	15.0	15.0	.....	16.49
	1911	38	74.0	.....	21.1	26.3	42.1	10.5	.215	36.9	36.8	10.5	15.8	.....	15.78
	1912	42	75.9	.....	19.0	28.6	33.3	19.0	.223	19.1	42.9	28.6	9.5	.....	16.86
9 plants.....	1912	52	79.3	.....	15.4	7.7	26.9	50.0	.228	26.8	34.6	30.8	7.7	.....	18.00
	1913	56	79.2	.....	.....	10.7	50.0	39.3	.257	28.6	14.3	28.6	28.6	.....	20.34
Stock cranimen:															
13 plants.....	1910	75	78.8	1.3	2.7	16.0	40.0	40.0	.223	14.7	66.7	18.7	.....	.....	17.60
	1911	70	75.6	1.4	22.9	10.0	42.9	22.9	.207	24.2	75.7	.....	.....	.....	15.61
	1912	66	77.7	.....	.....	18.2	51.5	30.3	.235	12.2	48.5	39.4	.....	.....	18.29
14 plants.....	1912	72	78.9	.....	.....	11.1	47.2	41.7	.228	22.3	44.4	33.3	.....	.....	18.02
	1913	80	79.6	.....	.....	10.0	47.5	42.5	.239	7.5	66.3	23.8	2.5	.....	19.01
										20 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	
Melters' helpers, first:															
17 plants.....	1910	341	77.7	.....	7.0	22.0	39.9	31.1	.416	3.5	36.4	49.6	10.6	.....	32.27
	1911	338	75.3	.....	17.2	21.3	48.5	13.0	.400	10.1	39.9	42.3	7.7	.....	30.12
	1912	347	76.5	.....	2.3	23.6	55.0	19.0	.417	6.1	30.3	50.4	13.3	.....	31.89
17 plants.....	1912	345	76.8	.....	2.3	20.9	55.4	21.4	.417	5.5	31.6	49.6	13.3	.....	31.99
	1913	364	77.1	.....	2.7	16.5	54.9	25.8	.440	2.5	27.7	42.3	26.4	1.1	33.89

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—OPEN-HEARTH FURNACES—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				60 and under.	Over 60 and under 72.	72	Over 72 and under 84.	84		20 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	
Steel pourers:															
14 plants.....	1910	47	75.3	.....	10.6	48.9	17.0	23.4	\$0.308	51.0	40.4	8.5	.....	.....	\$23.05
	1911	44	73.7	.....	22.7	27.3	40.9	9.1	.304	45.4	50.0	4.5	.....	.....	22.32
	1912	46	75.3	.....	21.7	30.4	30.4	17.4	.313	39.1	52.2	8.7	.....	.....	23.52
15 plants.....	1912	50	76.5	.....	20.0	24.0	28.0	28.0	.321	28.0	64.0	8.0	.....	.....	24.57
	1913	52	77.6	.....	3.8	19.2	46.2	30.8	.352	19.2	61.5	19.2	.....	.....	27.26
Stopper setters:															
10 plants.....	1910	30	76.2	.....	.....	36.7	56.7	6.7	.313	46.7	33.3	13.3	6.7	.....	23.63
	1911	29	73.5	.....	27.6	20.7	51.7	.....	.313	44.8	37.9	10.3	6.9	.....	23.11
	1912	29	75.8	.....	.....	20.7	72.4	6.9	.329	44.8	27.6	27.6	.....	.....	24.92
8 plants.....	1912	26	76.0	.....	.....	15.4	76.9	7.7	.326	46.2	30.8	23.1	.....	.....	24.80
	1913	26	76.7	.....	.....	15.4	84.6	.....	.363	30.8	46.2	15.4	7.7	.....	27.78

To aid in making a comparison of the actual data for the four years which will give an accurate measure of the changes throughout the period, relative or index numbers have been computed from the averages of the preceding table for full-time hours per week, rates of wages per hour, and full-time weekly earnings, for each occupation from 1910 to 1913, inclusive. Such figures appear in the table following. These relative or index numbers are simply percentages for which the data for 1913 are taken as the base, or 100 per cent. The relative for each year is the per cent which the average for that year is of the average for 1913. For example, the relative full-time weekly earnings of stockers in 1910 were 89.6 as compared with 100 in 1913; that is, the full-time weekly earnings of stockers in 1910 were 89.6 per cent of the full-time weekly earnings in this occupation in 1913. The method of computing relative numbers is explained on pages 21 to 23.

The table following also shows for each occupation the per cent of increase or decrease in full-time hours per week, rates of wages per hour, and full-time weekly earnings in 1913 as compared with each specified year preceding. Thus, the full-time weekly earnings of stockers in 1913 were 11.6 per cent higher than in 1910, 20 per cent higher than in 1911, and 13.3 per cent higher than in 1912.

In other columns of the table is shown the per cent of change in each year as compared with the year immediately preceding. Thus, the full-time weekly earnings of stockers in 1911 were 7 per cent lower than in 1910; in 1912, 6 per cent higher than in 1911, and in 1913, 13.3 per cent higher than in 1912. The other occupations and items

of the table can be studied in like manner. The per cent of increase and decrease is computed from the relative numbers.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—OPEN-HEARTH FURNACES.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Stockers:									
1910.....	99.2	+0.8	-----	89.8	+11.4	-----	89.6	+11.6	-----
1911.....	96.1	+4.1	-3.1	87.3	+14.5	-2.8	83.3	+20.0	-7.0
1912.....	99.0	+1.0	+3.0	89.3	+12.0	+2.3	88.3	+13.3	+6.0
1913.....	100.0	-----	+1.0	100.0	-----	+12.0	100.0	-----	+13.3
Stock cranimen:									
1910.....	100.5	-.5	-----	90.5	+10.5	-----	91.2	+9.6	-----
1911.....	96.4	+3.7	-4.1	84.0	+19.0	-7.2	80.9	+23.6	-11.3
1912.....	99.1	+ .9	+2.8	95.4	+ 4.8	+13.6	94.8	+ 5.5	+17.2
1913.....	100.0	-----	+ .9	100.0	-----	+ 4.8	100.0	-----	+ 5.5
Charging-machine operators:									
1910.....	98.9	+1.1	-----	87.8	+13.9	-----	86.6	+15.5	-----
1911.....	96.1	+4.1	-2.8	85.7	+16.7	-2.4	82.2	+21.7	-5.1
1912.....	97.2	+2.9	+1.1	93.1	+ 7.4	+ 8.6	90.6	+10.4	+10.2
1913.....	100.0	-----	+2.9	100.0	-----	+ 7.4	100.0	-----	+10.4
Door operators:									
1910.....	99.2	+ .8	-----	88.4	+13.1	-----	88.5	+13.0	-----
1911.....	98.7	+1.3	-.5	87.5	+14.3	-1.0	86.3	+15.9	-2.5
1912.....	99.3	+ .7	+ .6	89.3	+12.0	+2.1	88.5	+13.0	+2.5
1913.....	100.0	-----	+ .7	100.0	-----	+12.0	100.0	-----	+13.0
Melters' helpers, first:									
1910.....	101.2	-1.2	-----	94.5	+ 5.8	-----	95.5	+ 4.7	-----
1911.....	98.0	+2.0	-3.2	90.9	+10.0	-3.8	89.2	+12.1	-6.6
1912.....	99.6	+ .4	+1.6	94.8	+ 5.5	+ 4.3	94.4	+ 5.9	+ 5.8
1913.....	100.0	-----	+ .4	100.0	-----	+ 5.5	100.0	-----	+ 5.9
Melters' helpers, second:									
1910.....	100.3	-.3	-----	93.5	+ 7.0	-----	94.3	+ 6.0	-----
1911.....	97.5	+2.6	-2.8	90.4	+10.6	-3.3	88.6	+12.9	-6.0
1912.....	99.2	+ .8	+1.7	94.2	+ 6.2	+ 4.2	93.8	+ 6.6	+ 5.9
1913.....	100.0	-----	+ .8	100.0	-----	+ 6.2	100.0	-----	+ 6.6
Melters' helpers, third:									
1910.....	99.1	+ .9	-----	90.8	+10.1	-----	89.7	+11.5	-----
1911.....	95.7	+4.5	-3.4	85.7	+16.7	-5.6	81.9	+22.1	-8.7
1912.....	97.7	+2.4	+2.1	92.2	+ 8.5	+ 7.6	90.0	+11.1	+ 9.9
1913.....	100.0	-----	+2.4	100.0	-----	+ 8.5	100.0	-----	+11.1
Stopper setters:									
1910.....	99.6	+ .4	-----	85.4	+17.1	-----	84.7	+18.1	-----
1911.....	96.1	+4.1	-3.5	85.4	+17.1	(1)	82.8	+20.8	-2.2
1912.....	99.1	+ .9	+3.1	89.8	+11.4	+ 5.2	89.3	+12.0	+ 7.9
1913.....	100.0	-----	+ .9	100.0	-----	+11.4	100.0	-----	+12.0
Steel pourers:									
1910.....	98.6	+1.4	-----	89.7	+11.5	-----	88.3	+13.3	-----
1911.....	96.5	+3.6	-2.1	88.6	+12.9	-1.2	85.5	+17.0	-3.2
1912.....	98.6	+1.4	+2.2	91.2	+ 9.6	+ 2.9	90.1	+11.0	+ 5.4
1913.....	100.0	-----	+1.4	100.0	-----	+ 9.6	100.0	-----	+11.0
Mold cappers:									
1910.....	100.9	-.9	-----	86.3	+15.9	-----	86.6	+15.5	-----
1911.....	97.6	+2.5	-3.3	85.5	+17.0	-.9	82.8	+20.8	-4.4
1912.....	100.1	-.1	+2.6	88.7	+12.7	+ 3.7	88.5	+13.0	+ 6.9
1913.....	100.0	-----	-.1	100.0	-----	+12.7	100.0	-----	+13.0

¹ No change.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—OPEN-HEARTH FURNACES—Concluded.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Ladle cranimen:									
1910.....	99.7	+0.3	-----	86.2	+16.0	-----	86.1	+16.1	-----
1911.....	96.4	+3.7	-3.3	84.2	+18.8	-2.3	80.7	+23.9	-6.3
1912.....	98.4	+1.6	+2.0	93.0	+7.5	+10.5	91.6	+9.2	+13.5
1913.....	100.0	-----	+1.6	100.0	-----	+7.5	100.0	-----	+9.2
Ingot strippers:									
1910.....	99.6	+ .4	-----	91.9	+8.8	-----	90.9	+10.0	-----
1911.....	97.2	+2.9	-2.4	85.6	+16.8	-6.9	82.6	+21.1	-9.1
1912.....	97.9	+2.1	+ .7	93.9	+6.5	+9.7	91.5	+9.3	+10.8
1913.....	100.0	-----	+2.1	100.0	-----	+6.5	100.0	-----	+9.3
Engineers, locomotive:									
1910.....	101.3	-1.3	-----	83.3	+20.0	-----	84.8	+17.9	-----
1911.....	97.5	+2.6	-3.8	84.6	+18.2	+1.6	82.5	+21.2	-2.7
1912.....	98.7	+1.3	+1.2	89.4	+11.9	+5.7	88.3	+13.3	+7.0
1913.....	100.0	-----	+1.3	100.0	-----	+11.9	100.0	-----	+13.3
Switchmen:									
1910.....	101.3	-1.3	-----	80.4	+24.4	-----	81.7	+22.4	-----
1911.....	97.7	+2.4	-3.6	81.3	+23.0	+1.1	79.5	+25.8	-2.7
1912.....	97.9	+2.1	+ .2	85.5	+15.6	+6.4	84.6	+18.2	+6.4
1913.....	100.0	-----	+2.1	100.0	-----	+15.6	100.0	-----	+18.2
Laborers:									
1910.....	98.2	+1.8	-----	84.5	+18.3	-----	82.8	+20.8	-----
1911.....	96.4	+3.7	-1.8	86.6	+15.5	+2.5	83.5	+19.8	-----
1912.....	98.0	+2.0	+1.7	87.7	+14.0	+1.3	85.7	+16.7	+2.6
1913.....	100.0	-----	+2.0	100.0	-----	+14.0	100.0	-----	+16.7

A similar table of relative numbers and percentages is next shown for the open-hearth furnace department as a whole, as determined by a combination of the data for the several principal productive occupations which are covered in this section of the report. The method of computing the figures of this table is explained on page 23.

From the table following, under "weekly earnings," it is seen that the relative full-time weekly earnings of the open-hearth department as a whole in 1910 were 88.2 as compared with 100 in 1913. In other words, the full-time weekly earnings in 1910 were 88.2 per cent of such earnings in 1913. The relative dropped to 85.6 in 1911, advanced to 90.8 in 1912 and to 100 in 1913, the base year.

The next column shows that full-time weekly earnings in 1913 were 13.4 per cent higher than in 1910, 16.8 per cent higher than in 1911, and 10.1 per cent higher than in 1912.

The third column under "weekly earnings" shows the per cent of increase or decrease in full-time weekly earnings in each year as

compared with the year immediately preceding. Thus, the full-time weekly earnings in 1911 were 2.9 per cent lower than in 1910; in 1912, 6.1 per cent higher than in 1911; and in 1913, 10.1 per cent higher than in 1912. The relative numbers and percentages for full-time hours per week and rates of wages per hour can be read in like manner.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, ALL OCCUPATIONS—OPEN-HEARTH FURNACES.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (−) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (−) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (−) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
1910.	99.4	+0.6	.....	88.2	+13.4	*.....	88.2	+13.4	.....
1911.	96.9	+3.2	-2.5	88.2	+13.4	(1)	85.6	+16.8	-2.9
1912.	98.6	+1.4	+1.8	91.9	+8.8	+4.2	90.8	+10.1	+6.1
1913.	100.0	.....	+1.4	100.0	.....	+8.8	100.0	.....	+10.1

¹ No change.

In considering earnings it should be remembered that a reduction of hours tends to reduce weekly earnings just as an increase in wages per hour, of course, tends to increase them.

Still another influence on average weekly earnings for the department must be considered—that is, the change in the relative number of employees in the several occupations from year to year. It is obvious that an increase in the relative number of employees in the lower-paid occupations or a decrease in the relative number of those in the higher-paid ones would tend to lower the average rate and earnings for all occupations, just as an increase in the relative number of employees in the higher-paid occupations or a decrease in the relative number in the lower-paid ones would tend to increase the average.

FULL-TIME WORKING DAYS PER WEEK.

The number and per cent of employees in the principal productive occupations in open-hearth plants whose customary working time per week was 5 days or turns, or 6 days, or 7 days, or variations thereof, are shown in the following table. The heading "5 days and 6 days

alternately," for example, indicates that the plants were running 6 days and 5 nights each week, being shut down for one day and a half each week, and that the employees reported under this heading work 6 turns one week and 5 turns the next.

The figures are presented for each district and for the four districts combined.

NUMBER AND PER CENT OF EMPLOYEES IN EACH DISTRICT WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1910 TO 1913—OPEN-HEARTH FURNACES.

[The figures for each group of years are for identical plants.]

NUMBER.

District, and number of plants.	Year.	Number of employees.	Employees whose customary working time per week was—						
			5 days and 6 days alternately.	6 days.	5 days and 7 days alternately.	6 days and 7 days alternately.	6 days, 6 days, and 7 days in rotation.	6 days, 7 days, and 7 days in rotation.	7 days.
Eastern:									
4 plants.....	1910	583	207	252	16	24			84
	1911	469	83	274		26			86
4 plants.....	1911	477	83	282		26			86
	1912	480	55	311		26			88
4 plants.....	1912	471	55	296		26			94
	1913	490	62	301		28			99
Pittsburgh:									
5 plants.....	1910	1,491		343		837			311
	1911	1,432	32	558	32	636	3		171
	1912	1,428		225		881	3		319
5 plants.....	1912	1,452		225		873	1 20		331
	1913	1,571		121		879	1 60	2 50	461
Great Lakes and Middle West:									
6 plants.....	1910	975		340		63			572
	1911	941		461		263			217
	1912	1,020		517		204			299
6 plants.....	1912	1,073		477		182			414
	1913	1,171		422		168	15		566
Southern:									
2 plants.....	1910	292		188					104
	1911	223		100		58			65
	1912	254		98		68			88
2 plants.....	1912	250		86		70		6	88
	1913	266		126		62		6	72
Total:									
17 plants.....	1910	3,341	207	1,123	16	924			1,071
	1911	3,065	115	1,393	32	983	3		539
17 plants.....	1911	3,073	115	1,401	32	983	3		539
	1912	3,182	55	1,151		1,179	3		794
17 plants.....	1912	3,246	55	1,084		1,151	1 20	9	927
	1913	3,498	62	1,970		1,137	4 75	2 56	1,198

¹ Worked 7 days every fourth week.

² Including 47 employees who worked 6 days every fourth week.

³ Including 6 employees who worked 7 days every sixth week.

⁴ Including 60 employees who worked 7 days every fourth week.

NUMBER AND PER CENT OF EMPLOYEES IN EACH DISTRICT WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1910 TO 1913—OPEN-HEARTH FURNACES—Concluded.

PER CENT.

District, and number of plants.	Year.	Number of employees.	Employees whose customary working time per week was—						
			5 days and 6 days alternately.	6 days.	5 days and 7 days alternately.	6 days and 7 days alternately.	6 days, 6 days, and 7 days in rotation.	6 days, 7 days, and 7 days in rotation.	7 days.
Eastern:									
4 plants.....	1910	583	35.5	43.2	2.7	4.1			14.4
	1911	469	17.7	58.4		5.5			18.3
4 plants.....	1911	477	17.4	59.1		5.5			18.0
	1912	480	11.5	64.8		5.4			18.3
4 plants.....	1912	471	11.7	62.8		5.5			20.0
	1913	490	12.7	61.4		5.7			20.2
Pittsburgh:									
5 plants.....	1910	1,491		23.0		56.1			20.9
	1911	1,432	2.2	39.0	2.2	44.4	0.2		11.9
	1912	1,428		15.8		61.7	.2		22.3
5 plants.....	1912	1,452		15.5		60.1	¹ 1.4	0.2	22.8
	1913	1,571		7.7		56.0	¹ 3.8	² 3.2	29.3
Great Lakes and Middle West:									
6 plants.....	1910	975		34.9		6.5			58.7
	1911	941		49.0		27.9			23.1
	1912	1,020		50.7		20.0			29.3
6 plants.....	1912	1,073		44.5		17.0			38.6
	1913	1,171		³ 36.0		14.3	1.3		48.3
Southern:									
2 plants.....	1910	292		64.4					35.6
	1911	223		44.8		26.0			29.1
	1912	254		38.6		26.8			34.6
2 plants.....	1912	250		34.4		28.0		2.4	35.2
	1913	266		47.4		23.3		2.3	27.1
Total:									
17 plants.....	1910	3,341	6.2	33.6	.5	27.7			32.1
	1911	3,065	3.8	45.4	1.0	32.1	.1		17.6
17 plants.....	1911	3,073	3.7	45.6	1.0	32.0	.1		17.5
	1912	3,182	1.7	36.2		37.1	.1		25.0
17 plants.....	1912	3,246	1.7	33.4		35.5	¹ .6	.3	28.6
	1913	3,498	1.8	⁴ 27.7		32.5	⁵ 2.1	⁶ 1.6	34.2

¹ Worked 7 days every fourth week.

² Including 3 per cent who worked 6 days every fourth week.

³ Including 5 per cent who worked 7 days every sixth week.

⁴ Including 0.2 per cent who worked 7 days every sixth week.

⁵ Including 1.7 per cent who worked 7 days every fourth week.

⁶ Including 1.3 per cent who worked 6 days every fourth week.

In addition to the text tables in the summary, four general tables are presented for the open-hearth furnace department, as follows:

Table I.—Average full-time weekly earnings and average and classified rates of wages per hour in the United States, by years, 1910 to 1913.

Table II.—Average full-time weekly earnings and average and classified rates of wages per hour in each year, by districts, 1912 and 1913.

Table III.—Average and classified full-time hours per week in the United States, by years, 1910 to 1913.

Table IV.—Average and classified full-time hours per week in each year, by districts, 1912 and 1913.

In Tables I and III, in addition to actual data, percentages computed therefrom are given. The data from these two tables are summarized in the text table on pages 98 to 100.

The order in which the occupations are given in Tables I to IV, inclusive, and in the table of relative numbers, follows that of the processes of manufacture.

"Identical plants," as used in the tables of this report, are identical units of identical establishments, reporting the same occupations in each of two or more consecutive years. For a more extended explanation, see page 17.

Figures for each geographical division for each preceding year, back to 1910, corresponding to those given for 1912 and 1913 in Tables II and IV, and descriptions of the occupations which appear in the tables of this report, were given in Bulletin No. 151 of this Bureau, but have been omitted from the present report.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—OPEN-HEARTH FURNACES.

[The figures for each group of years are for identical plants.]

NUMBER.

Occupation, and number of plants.	Year.	Number of employ- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earn- ings.	Employees earning each classified rate of wages per hour.											
						Under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.
Stockers:																	
17 plants....	1910	448	76.8	\$0.177	\$13.69				26	121	83	76	142				
	1911	419	74.4	.172	12.73				3	155	103	142	16				
	1912	403	76.6	.176	13.49				6	120	159	28	72	18			
17 plants....	1912	413	77.0	.176	13.51				10	120	155	54	56	18			
	1913	417	77.8	.197	15.30				6	123	134	134	32				
Stock cranimen:																	
13 plants....	1910	75	78.8	.223	17.60					5	6	50	14				
	1911	70	75.6	.207	15.61					5	12	53					
	1912	66	77.7	.235	18.29					4	32	26					
14 plants....	1912	72	78.9	.228	18.02					4	12	32	24				
	1913	80	79.6	.239	19.01						6	53	19	2			
Charging - machine operators:																	
17 plants....	1910	73	76.8	.294	22.52						4	2	35	26	6		
	1911	72	74.7	.287	21.37					4	4	10	26	22	6		
	1912	72	75.5	.312	23.56						4	2	16	50			
17 plants....	1912	72	75.8	.312	23.67						4	2	14	52			
	1913	76	78.0	.335	26.12							4	20	42	10		
Door operators:																	
15 plants....	1910	165	75.9	.101	7.72	85	52	14	14								
	1911	160	75.5	.100	7.53	74	62	24									
	1912	157	76.0	.102	7.72	61	70	26									
15 plants....	1912	155	76.4	.100	7.68	65	70	20									
	1913	160	76.9	.112	8.68	52	48	40	20								
Melters' helpers, first:																	
17 plants....	1910	341	77.7	.416	32.27								12	124	169	36	
	1911	338	75.3	.400	30.12							6	28	135	143	26	
	1912	347	76.5	.417	31.89							4	17	105	175	46	
17 plants....	1912	345	76.8	.417	31.99							2	17	109	171	46	
	1913	364	77.1	.440	33.89								9	101	154	100	
Melters' helpers, second:																	
17 plants....	1910	339	76.6	.272	20.87					18	84	137	100				
	1911	335	74.5	.263	19.62					4	21	107	130	73			
	1912	347	75.8	.274	20.77					7	15	72	154	99			
17 plants....	1912	345	76.1	.275	20.98					5	15	64	162	99			
	1913	360	76.7	.292	22.36						4	78	108	168	2		
Melters' helpers, third:																	
17 plants....	1910	393	76.5	.196	14.97				14	151	66	162					
	1911	394	73.9	.185	13.67			24	59	85	94	131	1				
	1912	414	75.4	.199	15.01			20	53	56	63	186	36				
16 plants....	1912	390	75.8	.200	15.17			20	53	52	43	186	36				
	1913	416	77.6	.217	16.86				20	31	58	221	74	12			
Stopper setters:																	
10 plants....	1910	30	76.2	.313	23.63							14		10	4	2	
	1911	29	73.5	.313	23.11							9	4	11	3	2	
	1912	29	75.8	.329	24.92							5	8	8			
8 plants....	1912	26	76.0	.326	24.80							2	10	8	6		
	1913	26	76.7	.363	27.78								8	12	4	2	
Steel pourers:																	
14 plants....	1910	47	75.3	.308	23.05							5	19	19	4		
	1911	44	73.7	.304	22.32							6	14	22	2		
	1912	46	75.3	.313	23.52							6	12	24	4		
15 plants....	1912	50	76.5	.321	24.57							6	8	32	4		
	1913	52	77.6	.352	27.26							4	6	32	10		

¹ Including 4 employees earning 60 and under 70 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—OPEN-HEARTH FURNACES—Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.										
						Under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.
Mold cappers: 8 plants.....	1910	40	76.5	\$0.217	\$16.49	.....	.....	.....	8	6	.....	14	6	6	.....	.....
	1911	38	74.0	.215	15.78	.....	.....	.....	12	.....	2	14	4	6	.....	.....
	1912	42	75.9	.223	16.86	.....	.....	.....	6	.....	2	18	12	4	.....	.....
9 plants.....	1912	52	79.3	.228	18.00	.....	.....	.....	6	6	2	18	16	4	.....	.....
	1913	56	79.2	.287	20.34	.....	.....	.....	.....	8	8	8	16	16	.....	.....
Ladle cranemen: 16 plants.....	1910	90	77.2	.294	22.76	.....	.....	.....	.....	6	.....	20	19	39	6	.....
	1911	86	74.6	.287	21.32	.....	.....	.....	.....	5	2	14	34	24	7	.....
	1912	90	76.2	.317	24.22	.....	.....	.....	.....	.....	6	7	.....	77	.....	.....
17 plants.....	1912	88	76.0	.317	24.14	.....	.....	.....	.....	.....	6	7	2	73	.....	.....
	1913	90	77.2	.341	26.34	.....	.....	.....	.....	.....	.....	8	6	72	4	.....
Ingot strippers: 15 plants.....	1910	46	73.7	.275	19.88	.....	.....	2	.....	2	.....	19	10	10	3	.....
	1911	51	71.9	.256	18.06	.....	.....	.....	4	16	7	7	11	10	2	1
	1912	49	72.4	.281	20.00	.....	.....	.....	4	.....	.....	20	6	16	.....	3
15 plants.....	1912	55	72.9	.278	19.99	.....	.....	.....	2	.....	.....	26	8	16	.....	3
	1913	61	74.5	.296	21.85	.....	.....	.....	.....	.....	2	3	34	16	6	.....
Engineers, loco- motive: 14 plants....	1910	107	77.3	.244	18.92	.....	.....	.....	.....	8	2	52	39	6	.....	.....
	1911	110	74.4	.248	18.40	.....	.....	.....	.....	4	2	45	57	2	.....	.....
15 plants.....	1911	114	74.3	.247	18.32	.....	.....	.....	.....	4	4	45	59	2	.....	.....
	1912	111	75.2	.261	19.61	.....	.....	.....	.....	4	4	26	57	20	.....	.....
15 plants.....	1912	117	75.8	.262	19.86	.....	.....	.....	.....	4	4	26	63	20	.....	.....
	1913	114	76.8	.293	22.50	.....	.....	.....	.....	2	2	14	41	55	.....	.....
Switchmen: 14 plants.....	1910	109	77.3	.185	14.29	.....	.....	.....	12	35	34	28	.....	.....	.....	.....
	1911	113	74.5	.187	13.90	.....	.....	.....	6	29	52	26	.....	.....	.....	.....
15 plants.....	1911	117	74.4	.186	13.85	.....	.....	.....	8	29	52	28	.....	.....	.....	.....
	1912	112	74.6	.198	14.75	.....	.....	.....	6	20	46	32	8	.....	.....	.....
15 plants.....	1912	118	75.2	.199	14.92	.....	.....	.....	6	18	52	34	8	.....	.....	.....
	1913	117	76.8	.230	17.63	.....	.....	.....	2	8	4	66	37	.....	.....	.....
Laborers: 17 plants.....	1910	1,038	74.5	.157	11.69	.....	.....	204	259	575	.....	.....	.....	.....	.....	.....
	1911	806	73.2	.161	11.78	.....	.....	140	135	512	19	.....	.....	.....	.....	.....
	1912	897	74.4	.163	12.10	.....	.....	118	80	676	23	.....	.....	.....	.....	.....
17 plants.....	1912	948	74.7	.164	12.21	.....	.....	120	85	666	77	.....	.....	.....	.....	.....
	1913	1,109	76.2	.187	14.24	.....	.....	11	55	323	214	506	.....	.....	.....	.....

PER CENT.

Stockers: 17 plants.....	1910	448	76.8	\$0.177	\$13.69	.....	.....	5.8	27.0	18.5	17.0	31.7	.....	.....	.....	.....
	1911	419	74.4	.172	12.73	.....	.....	.....	7.7	37.0	24.6	33.9	3.8	.....	.....	.....
	1912	403	76.6	.176	13.49	.....	.....	.....	1.5	29.8	39.5	6.9	17.9	4.5	.....	.....
17 plants.....	1912	413	77.0	.176	13.51	.....	.....	.....	2.4	29.1	37.5	13.1	13.6	4.4	.....	.....
	1913	417	77.8	.197	15.30	.....	.....	.....	1.4	.....	29.3	29.5	32.1	7.7	.....	.....
Stock cranemen: 13 plants.....	1910	75	78.8	.223	17.60	.....	.....	.....	.....	6.7	8.0	66.7	18.7	.....	.....	.....
	1911	70	75.6	.207	15.61	.....	.....	.....	.....	7.1	17.1	75.7	.....	.....	.....	.....
	1912	66	77.7	.235	18.29	.....	.....	.....	.....	6.1	6.1	48.5	39.4	.....	.....	.....
14 plants.....	1912	72	78.9	.228	18.02	.....	.....	.....	.....	5.6	16.7	44.4	33.3	.....	.....	.....
	1913	80	79.6	.239	19.01	.....	.....	.....	.....	.....	7.5	66.3	23.8	2.5	.....	.....

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—OPEN-HEARTH FURNACES—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.										
						Under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.
Charging-machine operators:																
17 plants....	1910	73	76.8	\$0.294	\$22.52						5.5	2.7	47.9	35.6	8.2	
	1911	72	74.7	.287	21.37					5.6	5.6	13.9	36.1	30.6	8.3	
	1912	72	75.5	.312	23.56					5.6	5.6	2.8	22.2	69.4		
17 plants....	1912	72	75.8	.312	23.67						5.6	2.8	19.4	72.2		
	1913	76	78.0	.335	26.12							5.3	26.3	55.3	13.2	
Door operators:																
15 plants....	1910	165	75.9	.101	7.72	51.5	31.5	8.5								
	1911	160	75.5	.100	7.53	46.3	38.8	15.0								
	1912	157	76.0	.102	7.72	38.9	44.6	16.6								
15 plants....	1912	155	76.4	.100	7.68	41.9	45.2	12.9								
	1913	160	76.9	.112	8.68	32.6	30.0	25.0	12.5							
Melters' helpers, first:																
17 plants....	1910	341	77.7	.416	32.27								3.5	36.4	49.6	10.6
	1911	338	75.3	.400	30.12							1.8	8.3	39.9	42.3	7.7
	1912	347	76.5	.417	31.89							1.2	4.9	30.3	50.4	13.3
17 plants....	1912	345	76.8	.417	31.99							.6	4.9	31.6	49.6	13.3
	1913	364	77.1	.440	33.89								2.5	27.7	42.3	17.5
Melters' helpers, second:																
17 plants....	1910	339	76.6	.272	20.87					5.3	24.8	40.4	29.5			
	1911	335	74.5	.265	19.62				1.2	6.3	31.9	38.8	21.8			
	1912	347	75.8	.274	20.77				2.0	4.3	20.7	44.4	28.5			
17 plants....	1912	345	76.1	.275	20.98				1.4	4.3	18.6	47.0	28.7			
	1913	360	76.7	.292	22.36					1.1	21.7	30.0	46.7	.6		
Melters' helpers, third:																
17 plants....	1910	393	76.5	.196	14.97			3.6	38.4	16.8	41.2					
	1911	394	73.9	.185	13.67			6.1	15.0	21.6	23.9	33.2	.3			
	1912	414	75.4	.199	15.01			4.8	12.8	13.5	15.2	44.9	8.7			
16 plants....	1912	390	75.8	.200	15.17			5.1	13.6	13.3	11.0	47.7	9.2			
	1913	416	77.6	.217	16.86				4.8	7.5	13.9	53.1	17.8	2.9		
Stopper setters:																
10 plants....	1910	30	76.2	.313	23.63						46.7			33.3	13.3	6.7
	1911	29	73.5	.313	23.11						31.0	13.8	37.9	10.3	6.9	
	1912	29	75.8	.329	24.92						17.2	27.6	27.6	27.6		
8 plants....	1912	26	76.0	.326	24.80						7.7	38.5	30.8	23.1		
	1913	26	76.7	.363	27.78								30.8	46.2	15.4	7.7
Steel pourers:																
14 plants....	1910	47	75.3	.308	23.05						10.6	40.4	40.4	8.5		
	1911	44	73.7	.304	22.32						13.6	31.8	50.0	4.5		
	1912	46	75.3	.313	23.52						13.0	26.1	52.2	8.7		
15 plants....	1912	50	76.5	.321	24.57						12.0	16.0	64.0	8.0		
	1913	52	77.6	.352	27.26						7.7	11.5	61.5	19.2		
Mold cappers:																
8 plants....	1910	40	76.5	.217	16.49			20.0	15.0		35.0	15.0	15.0			
	1911	38	74.0	.215	15.78			31.6		5.3	36.8	10.5	15.8			
	1912	42	75.9	.223	16.86			14.3		4.8	42.9	28.6	9.5			
9 plants....	1912	52	79.3	.228	18.00			11.5	11.5	3.8	34.6	30.8	7.7			
	1913	56	79.2	.257	20.34				14.3	14.3	14.3	28.6	28.6			
Ladle cranimen:																
16 plants....	1910	90	77.2	.294	22.76				6.7		22.2	21.1	43.3	6.7		
	1911	86	74.6	.287	21.32				5.8	2.3	16.3	39.5	27.9	8.1		
	1912	90	76.2	.317	24.22					6.7	7.8		85.6			
17 plants....	1912	88	76.0	.317	24.14					6.8	8.0	2.3	83.0			
	1913	90	77.2	.341	26.34						8.9	6.7	80.0	4.4		

¹ Including 1.1 per cent earning 60 and under 70 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—OPEN-HEARTH FURNACES—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Num- ber of em- ploy- ees.	Aver- age full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.										
						Un- der 10 cts.	10 and un- der 12 cts.	12 and un- der 14 cts.	14 and un- der 16 cts.	16 and un- der 18 cts.	18 and un- der 20 cts.	20 and un- der 25 cts.	25 and un- der 30 cts.	30 and un- der 40 cts.	40 and un- der 50 cts.	50 and un- der 60 cts.
Ingot strippers: 15 plants....	1910	46	73.7	\$0.275	\$19.88	.....	.....	4.3	.....	4.3	.....	41.3	21.7	21.7	6.5	.....
	1911	51	71.9	.256	18.06	.....	.....	.....	.....	7.8	31.4	13.7	21.6	19.6	3.9	2.0
	1912	49	72.4	.281	20.00	.....	.....	.....	.....	8.2	.....	40.8	12.2	32.7	.....	6.1
15 plants....	1912	55	72.9	.278	19.99	.....	.....	.....	.....	3.6	.....	47.3	14.5	29.1	.....	5.5
	1913	61	74.5	.296	21.85	.....	.....	.....	.....	.....	3.3	4.9	55.7	26.2	9.8	.....
Engineers, loco- motive: 14 plants....	1910	107	77.3	.244	18.92	.....	.....	.....	.....	7.5	1.9	48.6	36.4	5.6	.....	.....
	1911	110	74.4	.248	18.40	.....	.....	.....	.....	3.6	1.8	40.9	51.8	1.8	.....	.....
	1912	111	75.2	.261	19.61	.....	.....	.....	.....	3.6	3.6	23.4	51.4	18.0	.....	.....
15 plants....	1911	114	74.3	.247	18.32	.....	.....	.....	.....	3.5	3.5	39.5	51.8	1.8	.....	.....
	1912	111	75.2	.261	19.61	.....	.....	.....	.....	3.6	3.6	23.4	51.4	18.0	.....	.....
15 plants....	1912	117	75.8	.262	19.86	.....	.....	.....	.....	3.4	3.4	22.2	53.8	17.1	.....	.....
	1913	114	76.8	.293	22.50	.....	.....	.....	.....	1.8	1.8	12.3	36.0	48.2	.....	.....
Switchmen: 14 plants....	1910	109	77.3	.185	14.29	.....	.....	.....	.....	11.0	32.1	31.2	25.7	.....	.....	.....
	1911	113	74.5	.187	13.90	.....	.....	.....	.....	5.3	25.7	46.0	23.0	.....	.....	.....
	1912	117	74.4	.186	13.85	.....	.....	.....	.....	6.8	24.8	44.4	23.9	.....	.....	.....
15 plants....	1912	112	74.6	.198	14.75	.....	.....	.....	.....	5.4	17.9	41.1	28.6	7.1	.....	.....
	1913	118	75.2	.199	14.92	.....	.....	.....	.....	5.1	15.3	44.1	28.8	6.8	.....	.....
Laborers: 17 plants....	1911	117	76.8	.230	17.63	.....	.....	.....	.....	1.7	6.8	3.4	56.4	31.6	.....	.....
	1910	1,038	74.5	.157	11.69	.....	.....	.....	.....	19.7	25.0	55.4	.....	.....	.....	.....
	1911	806	73.2	.161	11.78	.....	.....	.....	.....	17.4	16.7	63.5	2.4	.....	.....	.....
17 plants....	1912	897	74.4	.163	12.10	.....	.....	.....	.....	13.2	8.9	75.4	2.6	.....	.....	.....
	1912	948	74.7	.164	12.21	.....	.....	.....	.....	12.7	9.0	70.3	8.1	.....	.....	.....
	1913	1,109	76.2	.187	14.24	.....	.....	.....	.....	1.0	5.0	29.1	19.3	45.6	.....	.....

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—OPEN-HEARTH FURNACES.

[The abbreviation "G. L. and M. W." stands for "Great Lakes and Middle West."]

STOCKERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						Under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.
1912.																
Eastern	4	94	74.0	\$0.149	\$11.02	.....	.....	4	68	22	.....	.....	.....	.....	.....	.....
Pittsburgh	5	177	78.0	.186	14.45	.....	.....	.....	34	73	30	30	10	.....	.....	.....
G. L. and M. W.	6	118	77.9	.188	14.64	.....	.....	.....	60	24	26	.....	8	.....	.....	.....
Southern	2	24	77.0	.140	10.74	.....	.....	6	18	.....	.....	.....	.....	.....	.....	.....
Total.....	17	413	77.0	.176	13.51	.....	.....	10	120	155	54	56	18	.....	.....	.....
1913.																
Eastern	4	98	73.8	.171	12.61	.....	.....	.....	.....	68	30	.....	.....	.....	.....	.....
Pittsburgh	5	167	78.8	.212	16.65	.....	.....	.....	14	81	40	32	.....	.....	.....	.....
G. L. and M. W.	6	124	79.7	.202	16.10	.....	.....	.....	28	12	84	.....	.....	.....	.....	.....
Southern	2	28	76.7	.172	13.16	.....	.....	6	12	.....	10	.....	.....	.....	.....	.....
Total.....	17	417	77.8	.197	15.30	.....	.....	6	122	123	134	32	.....	.....	.....	.....

STOCK CRANEMEN.

1912.																
Eastern.....	3	8	78.0	\$0.179	\$13.89					4	4					
Pittsburgh.....	5	34	78.2	.218	16.99						8	20	6			
G. L. and M. W.....	5	26	80.3	.261	21.01							8	18			
Southern.....	1	4	78.0	.200	15.60											
Total.....	14	72	78.9	.228	18.02					4	12	32	24			
1913.																
Eastern.....	3	8	78.0	.194	15.12						6	2				
Pittsburgh.....	5	38	79.2	.241	19.06							29	7	2		
G. L. and M. W.....	5	30	80.8	.246	19.90							22	8			
Southern.....	1	4	78.0	.252	19.66								4			
Total.....	14	80	79.6	.239	19.01						6	53	19	2		

CHARGING-MACHINE OPERATORS.

1912.																
Eastern.....	4	14	73.8	\$0.226	\$16.52						4	2	8			
Pittsburgh.....	5	28	77.1	.319	24.64								6	22		
G. L. and M. W.....	6	24	76.0	.354	26.98									24		
Southern.....	2	6	74.0	.306	22.63									6		
Total.....	17	72	75.8	.312	23.67						4	2	14	52		
1913.																
Eastern.....	4	14	73.8	.267	19.52							4	6	4		
Pittsburgh.....	5	30	79.6	.321	25.40								12	18		
G. L. and M. W.....	6	26	79.4	.384	30.54								2	14	10	
Southern.....	2	6	74.0	.351	25.95									6		
Total.....	17	76	78.0	.335	26.12								20	42	10	

DOOR OPERATORS.

1912.																
Eastern.....	3	26	74.6	\$0.093	\$6.84	18	8									
Pittsburgh.....	4	57	75.6	.099	7.45	25	32									
G. L. and M. W.....	6	62	76.8	.104	8.04	20	22	20								
Southern.....	2	10	82.8	.108	8.96	2	8									
Total.....	15	155	76.4	.100	7.68	65	70	20								
1913.																
Eastern.....	3	26	74.6	.104	7.75	18	8									
Pittsburgh.....	4	60	75.2	.103	7.74	28	32									
G. L. and M. W.....	6	64	78.6	.123	9.74	4	16	24	20							
Southern.....	2	10	82.8	.119	9.90	2	8									
Total.....	15	160	76.9	.112	8.68	52	48	40	20							

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—OPEN-HEARTH FURNACES—Continued.

MELTERS' HELPERS, FIRST.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.											
						Under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	
1912.																	
Eastern	4	52	74.8	\$0.324	\$24.15							2	15	35			
Pittsburgh	5	153	76.5	.429	32.78								2	40	99		12
G. L. and M. W.	6	118	76.9	.436	33.47									28	58	32	
Southern	2	22	82.9	.449	37.15									6	14	2	
Total.....	17	345	76.8	.417	31.99							2	17	109	171	46	
1913.																	
Eastern	4	60	74.4	.348	25.79								3	55	2		
Pittsburgh	5	160	76.2	.465	35.38								6	20	80	154	
G. L. and M. W.	6	122	78.7	.442	34.56									24	66	32	
Southern	2	22	82.9	.499	41.35									2	6	14	
Total.....	17	364	77.1	.440	33.89								9	101	154	100	

MELTERS' HELPERS, SECOND.

1912.																
Eastern.....	4	52	72.9	\$0.213	\$15.52					5	15	26	6			
Pittsburgh.....	5	154	75.7	.294	22.26							8	87	59		
G. L. and M. W.	6	117	76.9	.284	21.84							18	59	40		
Southern.....	2	22	82.4	.247	20.42							12	10			
Total.....	17	345	76.1	.275	20.98					5	15	64	162	99		
1913.																
Eastern.....	4	58	72.8	.231	16.82						2	44	12			
Pittsburgh.....	5	160	75.7	.317	23.92						2	12	30	114	2	
G. L. and M. W.	6	120	78.8	.291	22.76							20	54	46		
Southern.....	2	22	82.4	.284	23.39							2	12	8		
Total.....	17	360	76.7	.292	22.36						4	78	108	168	2	

MELTERS' HELPERS, THIRD.

1912.																
Eastern.....	3	33	74.1	\$0.154	\$11.39					15	18					
Pittsburgh.....	5	180	75.3	.204	15.34					32	28	15	93	12		
G. L. and M. W.	6	129	76.5	.217	16.64							28	77	24		
Southern.....	2	48	76.8	.169	13.15				20	6	6		16			
Total.....	16	390	75.8	.200	15.17				20	53	52	43	186	36		
1913.																
Eastern.....	3	31	75.0	.170	12.82					21	10					
Pittsburgh.....	5	184	77.9	.226	17.56						48	80	44	12		
G. L. and M. W.	6	149	79.4	.227	17.99							119	30	46		
Southern.....	2	52	72.7	.186	13.53				20	10		22				
Total.....	16	416	77.6	.217	16.86				20	31	58	221	74	12		

STOPPER SETTERS.

1912.																
Pittsburgh.....	4	18	76.5	\$0.321	\$24.63								8	8	2	
G. L. and M. W.	2	4	75.0	.338	25.50								2		2	
Southern.....	2	4	75.0	.338	24.90							2			2	
Total.....	8	26	76.0	.326	24.80							2	10	8	6	
1913.																
Pittsburgh.....	4	18	77.5	.354	27.44								6	10	2	
G. L. and M. W.	2	4	75.0	.364	27.45									2	2	
Southern.....	2	4	75.0	.401	29.62								2			2
Total.....	8	26	76.7	.363	27.78								8	12	4	2

¹ Including 4 employees earning 60 and under 70 cents per hour.

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—OPEN-HEARTH FURNACES—Continued.

STEEL POURERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						Under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.
1912.																
Eastern.....	3	6	73.8	\$0.295	\$21.38							2		4		
Pittsburgh.....	5	22	76.8	.326	25.08							2	4	12	4	
G. L. and M. W.....	5	16	78.0	.334	26.13								4	12		
Southern.....	2	6	74.0	.297	21.76							2		4		
Total.....	15	50	76.5	.321	24.57							6	8	32	4	
1913.																
Eastern.....	3	6	73.8	.331	24.24								2	2	2	
Pittsburgh.....	5	24	78.1	.348	27.13							4	2	14	4	
G. L. and M. W.....	5	16	79.5	.366	29.21									12	4	
Southern.....	2	6	74.0	.349	25.62								2	4		
Total.....	15	52	77.6	.352	27.26							4	6	32	10	

MOLD CAPPERS.

1912.																
Eastern.....	1	6	84.0	\$0.170	\$14.28					6						
Pittsburgh.....	4	20	76.1	.260	19.75						2	4	10	4		
G. L. and M. W.....	3	20	81.6	.239	19.49							14	6			
Southern.....	1	6	78.0	.140	10.92				6							
Total.....	9	52	79.3	.228	18.00				6	6	2	18	16	4		
1913.																
Eastern.....	1	6	84.0	.190	15.96						6					
Pittsburgh.....	4	20	76.7	.274	20.89						2	6	2	10		
G. L. and M. W.....	3	22	80.7	.289	23.34							2	14	6		
Southern.....	1	8	78.0	.179	13.96				8							
Total.....	9	56	79.2	.257	20.34				8	8	8	8	16	16		

LADLE CRANEMEN.

1912.																
Eastern.....	4	15	73.5	\$0.219	\$16.12						6	7		2		
Pittsburgh.....	5	36	76.1	.327	24.92									36		
G. L. and M. W.....	6	29	77.8	.348	27.04								2	27		
Southern.....	2	8	73.5	.342	25.12									8		
Total.....	17	88	76.0	.317	24.14						6	7	2	73		
1913.																
Eastern.....	4	14	74.1	.259	19.21							8	4	2		
Pittsburgh.....	5	38	78.2	.338	26.37									38		
G. L. and M. W.....	6	30	78.4	.370	29.08								2	24	4	
Southern.....	2	8	73.5	.386	28.35									8		
Total.....	17	90	77.2	.341	26.34							8	6	72	4	

INGOT STRIPPERS.

1912.																
Eastern.....	2	16	72.9	\$0.221	\$16.04					2		14				
Pittsburgh.....	5	23	70.5	.324	22.44							6	4	10		3
G. L. and M. W.....	6	12	77.0	.263	20.16							4	4	4		
Southern.....	2	4	75.0	.285	21.20							2		2		
Total.....	15	55	72.9	.278	19.99					2		26	8	16		3
1913.																
Eastern.....	2	20	72.7	.244	17.69						2		18			
Pittsburgh.....	5	23	73.3	.342	24.70							1	6	11	5	
G. L. and M. W.....	6	14	78.9	.287	22.53							2	8	3	1	
Southern.....	2	4	75.0	.322	23.90								2	2		
Total.....	15	61	74.5	.296	21.85						2	3	34	16	6	

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—OPEN-HEARTH FURNACES—Concluded.

ENGINEERS, LOCOMOTIVE.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						Under 10 cts.	10 and under 12 cts.	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.
1912.																
Eastern.....	4	18	73.3	\$0.207	\$15.08	.....	.....	.....	.....	4	4	8	2	.....	.....	.....
Pittsburgh.....	4	56	75.4	.279	21.02	.....	.....	.....	.....	.....	.....	2	46	8	.....	.....
G. L. and M. W.	5	22	77.5	.262	20.31	.....	.....	.....	.....	.....	.....	12	2	8	.....	.....
Southern.....	2	21	77.1	.265	20.38	.....	.....	.....	.....	.....	.....	4	13	4	.....	.....
Total.....	15	117	75.8	.262	19.86	.....	.....	.....	.....	4	4	26	63	20	.....	.....
1913.																
Eastern.....	4	18	73.3	.231	16.85	.....	.....	.....	.....	2	2	10	4	.....	.....	.....
Pittsburgh.....	4	56	77.8	.312	24.23	.....	.....	.....	.....	.....	.....	.....	22	34	.....	.....
G. L. and M. W.	5	22	79.6	.275	21.87	.....	.....	.....	.....	.....	.....	4	10	8	.....	.....
Southern.....	2	18	74.0	.319	23.51	.....	.....	.....	.....	.....	.....	.....	5	13	.....	.....
Total.....	15	114	76.8	.293	22.50	.....	.....	.....	.....	2	2	14	41	55	.....	.....

SWITCHMEN.

1912.																
Eastern.....	4	18	73.3	\$0.165	\$11.99	.....	.....	.....	6	8	4	.....	.....	.....	.....	.....
Pittsburgh.....	4	58	75.2	.195	14.66	.....	.....	.....	.....	4	40	14	.....	.....	.....	.....
G. L. and M. W.	5	22	77.5	.212	16.43	.....	.....	.....	.....	.....	8	10	4	.....	.....	.....
Southern.....	2	20	74.4	.225	16.62	.....	.....	.....	.....	6	.....	10	4	.....	.....	.....
Total.....	15	118	75.2	.199	14.92	.....	.....	.....	6	18	52	34	8	.....	.....	.....
1913.																
Eastern.....	4	18	73.3	.190	13.86	.....	.....	.....	.....	8	.....	10	.....	.....	.....	.....
Pittsburgh.....	4	58	77.5	.234	18.12	.....	.....	.....	.....	.....	4	36	18	.....	.....	.....
G. L. and M. W.	5	22	79.6	.234	18.61	.....	.....	.....	.....	.....	.....	16	6	.....	.....	.....
Southern.....	2	19	74.5	.252	18.60	.....	.....	.....	2	.....	.....	4	13	.....	.....	.....
Total.....	15	117	76.8	.230	17.63	.....	.....	.....	2	8	4	66	37	.....	.....	.....

LABORERS.

1912.																
Eastern.....	4	113	61.3	\$0.152	\$9.27	.....	.....	34	22	50	7	.....	.....	.....	.....	.....
Pittsburgh.....	5	436	75.8	.165	12.46	.....	.....	53	41	342	.....	.....	.....	.....	.....	.....
G. L. and M. W.	6	354	77.5	.170	13.13	.....	.....	.....	10	274	70	.....	.....	.....	.....	.....
Southern.....	2	45	76.0	.132	9.93	.....	.....	33	12	.....	.....	.....	.....	.....	.....	.....
Total.....	17	948	74.7	.164	12.21	.....	.....	120	85	666	77	.....	.....	.....	.....	.....
1913.																
Eastern.....	4	113	63.1	.168	10.49	.....	.....	.....	31	41	41	.....	.....	.....	.....	.....
Pittsburgh.....	5	535	78.5	.190	14.90	.....	.....	.....	.....	161	82	292	.....	.....	.....	.....
G. L. and M. W.	6	406	77.3	.193	14.84	.....	.....	.....	.....	101	91	213	.....	.....	.....	.....
Southern.....	2	55	73.5	.150	10.93	.....	.....	11	24	20	.....	.....	.....	.....	.....	.....
Total.....	17	1,109	76.2	.187	14.24	.....	.....	11	55	323	214	506	.....	.....	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1913—OPEN-HEARTH FURNACES.

[The figures for each group of years are for identical plants.]

NUMBER.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Stockers:											
17 plants.....	1910	448	76.8	.....	.....	.....	.....	60	107	154	127
	1911	419	74.4	.....	.....	.....	13	109	102	116	79
	1912	403	76.6	.....	.....	.....	.....	26	122	155	100
17 plants.....	1912	413	77.0	.....	.....	.....	.....	30	102	165	116
	1913	417	77.8	.....	.....	.....	.....	32	90	167	128
Stock cranemen:											
13 plants.....	1910	75	78.8	.....	1	.....	.....	2	12	30	30
	1911	70	75.6	.....	1	.....	.....	16	7	30	16
	1912	66	77.7	.....	.....	.....	.....	.....	12	34	20
14 plants.....	1912	72	78.9	.....	.....	.....	.....	.....	8	34	30
	1913	80	79.6	.....	.....	.....	.....	.....	8	38	34
Charging-machine operators:											
17 plants.....	1910	73	76.8	.....	.....	.....	.....	6	25	20	22
	1911	72	74.7	.....	.....	.....	.....	18	18	24	12
	1912	72	75.5	.....	.....	.....	.....	10	28	18	16
17 plants.....	1912	72	75.8	.....	.....	.....	.....	10	26	18	18
	1913	76	78.0	.....	.....	.....	.....	10	12	24	30
Door operators:											
15 plants.....	1910	165	75.9	.....	.....	.....	.....	20	63	36	46
	1911	180	75.5	.....	.....	.....	.....	34	38	50	38
	1912	157	76.0	.....	.....	.....	.....	32	44	33	48
15 plants.....	1912	155	76.4	.....	.....	.....	.....	32	38	33	52
	1913	160	76.9	.....	.....	.....	.....	32	30	44	54
Melters' helpers, first:											
17 plants.....	1910	341	77.7	.....	.....	.....	.....	24	75	136	106
	1911	338	75.3	.....	.....	.....	.....	58	72	164	44
	1912	347	76.5	.....	.....	.....	.....	8	82	191	66
17 plants.....	1912	345	76.8	.....	.....	.....	.....	8	72	191	74
	1913	364	77.1	.....	.....	.....	.....	10	60	200	94
Melters' helpers, second:											
17 plants.....	1910	339	76.6	.....	.....	.....	.....	28	129	76	106
	1911	335	74.5	.....	.....	.....	.....	118	71	70	76
	1912	347	75.8	.....	.....	.....	.....	68	129	50	100
17 plants.....	1912	345	76.1	.....	.....	.....	.....	68	119	50	108
	1913	360	76.7	.....	.....	.....	.....	70	106	50	134
Melters' helpers, third:											
17 plants.....	1910	393	76.5	.....	.....	.....	.....	30	141	116	106
	1911	394	73.9	.....	.....	.....	.....	78	144	142	30
	1912	414	75.4	.....	.....	.....	.....	28	126	192	68
16 plants.....	1912	390	75.8	.....	.....	.....	.....	8	110	196	76
	1913	416	77.6	.....	.....	.....	.....	4	108	166	138
Stopper setters:											
10 plants.....	1910	30	76.2	.....	.....	.....	.....	11	17	.....	2
	1911	29	73.5	.....	.....	.....	.....	8	6	15	.....
	1912	29	75.8	.....	.....	.....	.....	.....	6	21	2
8 plants.....	1912	26	76.0	.....	.....	.....	.....	.....	4	20	2
	1913	26	76.7	.....	.....	.....	.....	.....	4	22	.....
Steel pourers:											
14 plants.....	1910	47	75.3	.....	.....	.....	.....	5	23	8	11
	1911	44	73.7	.....	.....	.....	.....	10	12	18	4
	1912	46	75.3	.....	.....	.....	.....	10	14	14	8
15 plants.....	1912	50	76.5	.....	.....	.....	.....	10	12	14	14
	1913	52	77.6	.....	.....	.....	.....	2	10	24	16

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1913—OPEN-HEARTH FURNACES—Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Mold cappers:											
8 plants.....	1910	40	76.5						22	6	12
	1911	38	74.0					8	10	16	4
	1912	42	75.9					8	12	14	8
9 plants.....	1912	52	79.3					8	4	14	26
	1913	56	79.2						6	28	22
Ladle cranemen:											
16 plants.....	1910	90	77.2					8	25	28	29
	1911	86	74.6					21	29	20	16
	1912	90	76.2					9	29	28	24
17 plants.....	1912	88	76.0					9	29	28	22
	1913	90	77.2					8	16	40	26
Ingot strippers:											
15 plants.....	1910	46	73.7	3				10	14	8	11
	1911	51	71.9		3			4	32	10	2
	1912	49	72.4		3				34	10	2
15 plants.....	1912	55	72.9		3				38	10	4
	1913	61	74.5		3				28	18	12
Engineers, locomotive:											
14 plants.....	1910	107	77.3					6	25	48	28
	1911	110	74.4					39	22	40	9
15 plants.....	1911	114	74.3					43	22	40	9
	1912	111	75.2					16	22	64	9
15 plants.....	1912	117	75.8					16	12	78	11
	1913	114	76.8					16	17	58	23
Switchmen:											
14 plants.....	1910	109	77.3					7	24	48	30
	1911	113	74.5					41	22	40	10
15 plants.....	1911	117	74.4					45	22	40	10
	1912	112	74.6					18	32	52	10
15 plants.....	1912	118	75.2					18	22	66	12
	1913	117	76.8					18	17	58	24
Laborers:											
17 plants.....	1910	1,038	74.5		29	8	63	212	137	365	224
	1911	806	73.2		35		55	192	117	298	109
	1912	897	74.4		51	5	52	115	131	392	151
17 plants.....	1912	948	74.7		51	4	50	125	159	365	194
	1913	1,109	76.2		35	13	43	61	281	343	333

PER CENT.

Stockers:											
17 plants.....	1910	448	76.8					13.4	23.9	34.4	28.3
	1911	419	74.4				3.1	26.0	24.3	27.7	18.9
	1912	403	76.6					6.5	30.3	38.5	24.8
17 plants.....	1912	413	77.0					7.3	24.7	40.0	28.1
	1913	417	77.8					7.7	21.6	40.0	30.7
Stock cranemen:											
13 plants.....	1910	75	78.8		1.3			2.7	16.0	40.0	40.0
	1911	70	75.6		1.4			22.9	10.0	42.9	22.9
	1912	66	77.7						18.2	51.5	30.3
14 plants.....	1912	72	78.9						11.1	47.2	41.7
	1913	80	79.6						10.0	47.5	42.5

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1913—OPEN-HEARTH FURNACES—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Charging-machine operators:											
17 plants.....	1910	73	76.8					8.2	34.2	27.4	30.1
	1911	72	74.7					25.0	25.0	33.3	16.7
	1912	72	75.5					13.9	38.9	25.0	22.2
17 plants.....	1912	72	75.8					13.9	36.1	25.0	25.0
	1913	76	78.0					13.2	15.8	31.6	39.5
Door operators:											
15 plants.....	1910	165	75.9					12.1	38.2	21.8	27.9
	1911	160	75.5					21.3	23.8	31.3	23.8
	1912	157	76.0					20.4	28.0	21.0	30.6
15 plants.....	1912	155	76.4					20.6	24.5	21.3	33.5
	1913	160	76.9					20.0	18.8	27.5	33.8
Melters' helpers, first:											
17 plants.....	1910	341	77.7					7.0	22.0	39.9	31.1
	1911	338	75.3					17.2	21.3	48.5	13.0
	1912	347	76.5					2.3	23.6	55.0	19.0
17 plants.....	1912	345	76.8					2.3	20.9	55.4	21.4
	1913	364	77.1					2.7	16.5	54.9	25.8
Melters' helpers, second:											
17 plants.....	1910	339	76.6					8.3	38.1	22.4	31.3
	1911	335	74.5					35.2	21.2	20.9	22.7
	1912	347	75.8					19.6	37.2	14.4	28.8
17 plants.....	1912	345	76.1					19.7	34.5	14.5	31.3
	1913	360	76.7					19.4	29.4	13.9	37.2
Melters' helpers, third:											
17 plants.....	1910	393	76.5					7.6	35.9	29.5	27.0
	1911	394	73.9					19.8	36.5	36.0	7.6
	1912	414	75.4					6.8	30.4	46.4	16.4
16 plants.....	1912	390	75.8					2.1	28.2	50.3	19.5
	1913	416	77.6					1.0	26.0	39.9	33.2
Stopper setters:											
10 plants.....	1910	30	76.2						36.7	56.7	6.7
	1911	29	73.5					27.6	20.7	51.7	
	1912	29	75.8						20.7	72.4	6.9
8 plants.....	1912	26	76.0						15.4	76.9	7.7
	1913	26	76.7						15.4	84.6	
Steel pourers:											
14 plants.....	1910	47	75.3					10.6	48.9	17.0	23.4
	1911	44	73.7					22.7	27.3	40.9	9.1
	1912	46	75.3					21.7	30.4	30.4	17.4
15 plants.....	1912	50	76.5					20.0	24.0	28.0	28.0
	1913	52	77.6					3.8	19.2	46.2	30.8
Mold cappers:											
8 plants.....	1910	40	76.5						55.0	15.0	30.0
	1911	38	74.0					21.1	26.3	42.1	10.5
	1912	42	75.9					19.0	28.6	33.3	19.0
9 plants.....	1912	52	79.3					15.4	7.7	26.9	50.0
	1913	56	79.2						10.7	50.0	39.3
Ladle cranimen:											
16 plants.....	1910	90	77.2					8.9	27.8	31.1	32.2
	1911	86	74.6					24.4	33.7	23.3	18.6
	1912	90	76.2					10.0	32.2	31.1	26.7
17 plants.....	1912	88	76.0					10.2	33.0	31.8	25.0
	1913	90	77.2					8.9	17.8	44.4	28.9
Ingot strippers:											
15 plants.....	1910	46	73.7	6.5				21.7	30.4	17.4	23.9
	1911	51	71.9		5.9			7.8	62.7	19.6	3.9
	1912	49	72.4		6.1				69.4	20.4	4.1
15 plants.....	1912	55	72.9		5.5				69.1	18.2	7.3
	1913	61	74.5		4.9				45.9	29.5	19.7

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1913—OPEN-HEARTH FURNACES—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Num- ber of em- ploy- ees.	Aver- age full- time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Engineers, locomotive:											
14 plants.....	1910	107	77.3	.....	.....	.....	.....	5.6	23.4	44.9	26.2
	1911	110	74.4	.....	.....	.....	.....	35.5	20.0	36.4	8.2
15 plants.....	1911	114	74.3	.....	.....	.....	.....	37.7	19.3	35.1	7.9
	1912	111	75.2	.....	.....	.....	.....	14.4	19.8	57.7	8.1
15 plants.....	1912	117	75.8	.....	.....	.....	.....	13.7	10.3	66.7	9.4
	1913	114	76.8	.....	.....	.....	.....	14.0	14.9	50.9	20.2
Switchmen:											
14 plants.....	1910	109	77.3	.....	.....	.....	.....	6.4	22.0	44.0	27.5
	1911	113	74.5	.....	.....	.....	.....	36.3	19.5	35.4	8.8
15 plants.....	1911	117	74.4	.....	.....	.....	.....	38.5	18.8	34.2	8.5
	1912	112	74.6	.....	.....	.....	.....	16.1	28.6	46.4	8.9
15 plants.....	1912	118	75.2	.....	.....	.....	.....	15.3	18.6	55.9	10.2
	1913	117	76.8	.....	.....	.....	.....	15.4	14.5	49.6	20.5
Laborers:											
17 plants.....	1910	1,038	74.5	.....	2.8	0.8	6.1	20.4	13.2	35.2	21.6
	1911	806	73.2	.....	4.3	.....	6.8	23.8	14.5	37.0	13.5
	1912	897	74.4	.....	5.7	.6	5.8	12.8	14.6	43.7	16.8
17 plants.....	1912	948	74.7	.....	5.4	.4	5.3	13.2	16.8	38.5	20.5
	1913	1,109	76.2	.....	3.2	1.2	3.9	5.5	25.3	30.9	30.0

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—OPEN-HEARTH FURNACES.

STOCKERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	4	94	74.0					30	44		20
Pittsburgh.....	5	177	78.0							133	44
Great Lakes and Middle West.....	6	118	77.9						48	24	46
Southern.....	2	24	77.0						10	8	6
Total.....	17	413	77.0					30	102	165	116
1913.											
Eastern.....	4	98	73.8					32	46		20
Pittsburgh.....	5	167	78.8							133	34
Great Lakes and Middle West.....	6	124	79.7						32	24	68
Southern.....	2	28	76.7						12	10	6
Total.....	17	417	77.8					32	90	167	128

STOCK CRANEMEN.

1912.										
Eastern.....	3	8	78.0						4	4
Pittsburgh.....	5	34	78.2						22	12
Great Lakes and Middle West.....	5	26	80.3						4	8
Southern.....	1	4	78.0							4
Total.....	14	72	78.9						8	34
1913.										
Eastern.....	3	8	78.0						4	4
Pittsburgh.....	5	38	79.2						26	12
Great Lakes and Middle West.....	5	30	80.8						4	8
Southern.....	1	4	78.0							4
Total.....	14	80	79.6						8	34

CHARGING-MACHINE OPERATORS.

1912.										
Eastern.....	4	14	73.8					10		4
Pittsburgh.....	5	28	77.1						8	8
Great Lakes and Middle West.....	6	24	76.0						14	6
Southern.....	2	6	74.0						4	2
Total.....	17	72	75.8					10	26	18
1913.										
Eastern.....	4	14	73.8					10		4
Pittsburgh.....	5	30	79.6						18	12
Great Lakes and Middle West.....	6	26	79.4						8	4
Southern.....	2	6	74.0						4	2
Total.....	17	76	78.0					10	12	24

DOOR OPERATORS.

1912.										
Eastern.....	3	26	74.6					8	8	10
Pittsburgh.....	4	57	75.6					24		16
Great Lakes and Middle West.....	6	62	76.8						30	18
Southern.....	2	10	82.8							2
Total.....	15	155	76.4					32	38	33
1913.										
Eastern.....	3	26	74.6					8	8	10
Pittsburgh.....	4	60	75.2						24	8
Great Lakes and Middle West.....	6	64	78.6						22	14
Southern.....	2	10	82.8							2
Total.....	15	160	76.9					32	30	44

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—OPEN-HEARTH FURNACES—Continued.

MELTERS' HELPERS, FIRST.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	4	52	74.8					8	14	20	10
Pittsburgh.....	5	153	76.5							141	12
Great Lakes and Middle West.....	6	118	76.9						58	24	36
Southern.....	2	22	82.9							6	16
Total.....	17	345	76.8					8	72	191	74
1913.											
Eastern.....	4	60	74.4					10	18	22	10
Pittsburgh.....	5	160	76.2							148	12
Great Lakes and Middle West.....	6	122	78.7						42	24	56
Southern.....	2	22	82.9							6	16
Total.....	17	364	77.1					10	60	200	94

MELTERS' HELPERS, SECOND.

1912.											
Eastern.....	4	52	72.9					28	14	.....	10
Pittsburgh.....	5	154	75.7					40	48	20	46
Great Lakes and Middle West.....	6	117	76.9						57	24	36
Southern.....	2	22	82.4							6	16
Total.....	17	345	76.1					68	119	50	108
1913.											
Eastern.....	4	58	72.8					30	18	.....	10
Pittsburgh.....	5	160	75.7					40	48	20	52
Great Lakes and Middle West.....	6	120	78.8						40	24	56
Southern.....	2	22	82.4							6	16
Total.....	17	360	76.7					70	106	50	134

MELTERS' HELPERS, THIRD.

1912.											
Eastern.....	3	33	74.1					8	15	.....	10
Pittsburgh.....	5	180	75.3							166	14
Great Lakes and Middle West.....	6	129	76.5						69	24	36
Southern.....	2	48	76.8						26	6	16
Total.....	16	390	75.8					8	110	196	76
1913.											
Eastern.....	3	31	75.0					4	17	.....	10
Pittsburgh.....	5	184	77.9							136	48
Great Lakes and Middle West.....	6	149	79.4						45	24	80
Southern.....	2	52	72.7						46	6	.....
Total.....	16	416	77.6					4	108	166	138

STOPPER SETTERS.

1912.											
Pittsburgh.....	4	18	76.5							16	2
Great Lakes and Middle West.....	2	4	75.0						2	2	.....
Southern.....	2	4	75.0						2	2	.....
Total.....	8	26	76.0						4	20	2
1913.											
Pittsburgh.....	4	18	77.5							18	.....
Great Lakes and Middle West.....	2	4	75.0						2	2	.....
Southern.....	2	4	75.0						2	2	.....
Total.....	8	26	76.7						4	22	.....

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—OPEN-HEARTH FURNACES—Continued.

STEEL POURERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	3	6	73.8					2	2		2
Pittsburgh.....	5	22	76.8					8		8	6
Great Lakes and Middle West.....	5	16	78.0						6	4	6
Southern.....	2	6	74.0						4	2	
Total.....	15	50	76.5					10	12	14	14
1913.											
Eastern.....	3	6	73.8					2	2		2
Pittsburgh.....	5	24	78.1							18	6
Great Lakes and Middle West.....	5	16	79.5						4	4	8
Southern.....	2	6	74.0						4	2	
Total.....	15	52	77.6					2	10	24	16

MOLD CAPPERS.

1912.											
Eastern.....	1	6	84.0								6
Pittsburgh.....	4	20	76.1					8		8	4
Great Lakes and Middle West.....	3	20	81.6						4		16
Southern.....	1	6	78.0							6	
Total.....	9	52	79.3					8	4	14	26
1913.											
Eastern.....	1	6	84.0								6
Pittsburgh.....	4	20	76.7							20	
Great Lakes and Middle West.....	3	22	80.7						6		16
Southern.....	1	8	78.0							8	
Total.....	9	56	79.2						6	28	22

LADLE CRANEMEN.

1912.											
Eastern.....	4	15	73.5					9	2		4
Pittsburgh.....	5	36	76.1						10	18	8
Great Lakes and Middle West.....	6	29	77.8						11	8	10
Southern.....	2	8	73.5						6	2	
Total.....	17	88	76.0					9	29	28	22
1913.											
Eastern.....	4	14	74.1					8	2		4
Pittsburgh.....	5	38	78.2							30	8
Great Lakes and Middle West.....	6	30	78.4						8	8	14
Southern.....	2	8	73.5						6	2	
Total.....	17	90	77.2					8	16	40	26

INGOT STRIPPERS.

1912.											
Eastern.....	2	16	72.9						14	2	
Pittsburgh.....	5	23	70.5		3				16	4	
Great Lakes and Middle West.....	6	12	77.0						6	2	4
Southern.....	2	4	75.0						2	2	
Total.....	15	55	72.9		3				38	10	4
1913.											
Eastern.....	2	20	72.7						18	2	
Pittsburgh.....	5	23	73.3		3				4	10	6
Great Lakes and Middle West.....	6	14	78.9						4	4	6
Southern.....	2	4	75.0						2	2	
Total.....	15	61	74.5		3				28	18	12

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—OPEN-HEARTH FURNACES—Concluded

ENGINEERS, LOCOMOTIVE.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	4	18	73.3	.....	.....	.....	.....	14	.....	.....	4
Pittsburgh.....	4	56	75.4	.....	.....	.....	.....	2	.....	54	.....
Great Lakes and Middle West.....	5	22	77.5	.....	.....	.....	.....	.....	8	8	6
Southern.....	2	21	77.1	.....	.....	.....	.....	.....	4	16	1
Total.....	15	117	75.8	.....	.....	.....	.....	16	12	78	11
1913.											
Eastern.....	4	18	73.3	.....	.....	.....	.....	14	.....	.....	4
Pittsburgh.....	4	56	77.8	.....	.....	.....	.....	2	.....	46	8
Great Lakes and Middle West.....	5	22	79.6	.....	.....	.....	.....	.....	4	8	10
Southern.....	2	18	74.0	.....	.....	.....	.....	.....	13	4	1
Total.....	15	114	76.8	.....	.....	.....	.....	16	17	58	23

SWITCHMEN.

1912.											
Eastern.....	4	18	73.3	.....	.....	.....	.....	14	.....	.....	4
Pittsburgh.....	4	58	75.2	.....	.....	.....	.....	4	.....	54	.....
Great Lakes and Middle West.....	5	22	77.5	.....	.....	.....	.....	.....	8	8	6
Southern.....	2	20	74.4	.....	.....	.....	.....	.....	14	4	2
Total.....	15	118	75.2	.....	.....	.....	.....	18	22	66	12
1913.											
Eastern.....	4	18	73.3	.....	.....	.....	.....	14	.....	.....	4
Pittsburgh.....	4	58	77.5	.....	.....	.....	.....	4	.....	46	8
Great Lakes and Middle West.....	5	22	79.6	.....	.....	.....	.....	.....	4	8	10
Southern.....	2	19	74.5	.....	.....	.....	.....	.....	13	4	2
Total.....	15	117	76.8	.....	.....	.....	.....	18	17	58	24

LABORERS.

1912.											
Eastern.....	4	113	61.3	.....	51	.....	25	25	2	10	.....
Pittsburgh.....	5	436	75.8	.....	.....	4	10	75	25	309	13
Great Lakes and Middle West.....	6	354	77.5	.....	.....	.....	3	25	130	38	158
Southern.....	2	45	76.0	.....	.....	.....	12	.....	2	8	23
Total.....	17	948	74.7	.....	51	4	50	125	159	365	194
1913.											
Eastern.....	4	113	63.1	.....	35	10	10	41	2	15	.....
Pittsburgh.....	5	535	78.5	.....	.....	3	5	3	103	284	137
Great Lakes and Middle West.....	6	406	77.3	.....	.....	.....	8	17	172	36	173
Southern.....	2	55	73.5	.....	.....	.....	20	.....	4	8	23
Total.....	17	1,109	76.2	.....	35	13	43	61	281	343	333

BLOOMING MILLS.

SUMMARY.

Summary figures relating to the blooming-mill department of the iron and steel industry are given with figures for other departments in the introductory summary on pages 5 to 15. An explanation of the scope of the investigation and of the methods employed is given on pages 15 to 23.

Briefly stated, in 1913 the average rate of wages or earnings per hour of employees in the principal occupations in blooming mills was from 11.7 per cent to 19.2 per cent higher than in any one of the three years preceding, and despite the fact that the average full-time hours per week were 1 per cent lower than at the beginning of the four-year period this very marked increase in rates of wages was so reflected in full-time earnings per week that the average earnings in 1913 were 17.9 per cent higher than in 1910, 16.6 per cent higher than in 1911, and 11.4 per cent higher than in 1912.

The most significant facts concerning the several blooming-mill occupations which are covered in this section of the report are summarized in the table following. Data are presented for the years 1910, 1911, 1912, and 1913, the figures set opposite each group of years being for identical plants. The data for 1913 represent 998 blooming-mill employees in the 12 occupations covered, and were obtained from 19 plants having 22 blooming mills in operation.

Referring to the first occupation presented, laborers, direct comparison can be made of data for 19 identical plants for 1910 to 1912, inclusive, and for a second group of 19 plants for 1912 and 1913. The first line of the table is read as follows: In 1910, the 19 blooming mills from which reports were obtained employed 449 laborers whose average full-time hours of work were 74.1 per week. For 16.2 per cent of the 449 laborers the full-time hours per week were over 48 and under 72; for 53.9 per cent, 72 per week; for 5.6 per cent, over 72 and under 84; and for 24.3 per cent, 84 hours per week. The average rate of wages or earnings per hour of laborers in the year considered (1910) was \$0.162. Of the total number, 10 per cent received 12 and under 14 cents per hour; 13.4 per cent, 14 and under 16 cents; and 76.6 per cent, 16 and under 18 cents per hour. The average full-time weekly earnings were \$11.97. The other lines of the table may be read in the same manner.

Referring to the last column of the table, it is seen that in 19 plants the average full-time weekly earnings of laborers were \$11.97 in 1910.

In 1911 there was an advance to \$12.02, and in 1912 a further advance to \$12.13. In the second group of 19 plants the full-time weekly earnings were \$12.08 in 1912 and \$13.53 in 1913. Comparing the average full-time weekly earnings for 1913 of the several occupations, it is seen that the lowest average was that of laborers, which was \$13.53, and the highest that of rollers, which was \$45.11.

In this table occupations are grouped according to the wages paid, beginning with the lowest-paid group, and the occupations in each group are presented in alphabetical order.

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—BLOOMING MILLS.

[The figures for each group of years are for identical plants.]

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—				Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.	
				48 and under.	Over 48 and under 72	72	Over 72 and under 84		84	12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.		20 and under 25 cts.
Laborers:															
19 plants.....	1910	449	74.1	.....	16.2	53.9	5.6	24.3	\$0.162	10.0	13.4	76.6	.....	.....	\$11.97
	1911	363	73.7	.....	14.4	59.0	8.8	17.9	.163	12.4	8.3	79.3	.....	.....	12.02
	1912	396	73.8	.....	14.1	56.6	11.1	18.2	.164	10.4	.8	88.9	.....	.....	12.13
19 plants.....	1912	344	74.0	.....	16.2	50.0	12.8	20.9	.163	11.9	1.5	86.6	.....	.....	12.08
	1913	352	73.4	.....	19.9	54.0	11.6	14.5	.184	2.6	9.7	17.6	54.5	15.6	13.53
										12 and under 16 cts.	16 and under 20 cts.	20 and under 30 cts.	30 and under 40 cts.	40 cts. and over.	
Bottom makers' helpers:															
12 plants.....	1910	47	70.3	.....	12.8	78.7	.....	8.5	.251	8.5	17.0	48.9	25.5	.....	17.23
	1911	46	70.3	.....	19.5	65.2	10.9	4.3	.243	8.7	15.2	54.4	21.7	.....	16.83
	1912	46	70.4	.....	19.5	60.9	15.2	4.3	.257	4.3	13.0	56.6	26.1	.....	17.84
13 plants.....	1912	50	70.6	.....	12.0	60.0	24.0	4.0	.257	4.0	12.0	60.0	24.0	.....	17.95
	1913	55	70.8	.....	10.9	56.4	25.5	7.3	.276	.....	21.8	36.4	41.8	.....	19.33
Shearmen's helpers:															
18 plants.....	1910	100	70.9	3.0	17.0	56.0	10.0	14.0	.218	14.0	35.0	42.0	9.0	.....	15.15
	1911	96	69.5	3.1	24.0	58.3	12.5	2.1	.217	13.5	26.0	57.3	3.1	.....	14.90
	1912	93	70.1	.....	24.8	62.4	10.8	2.2	.237	1.1	31.2	49.4	18.3	.....	16.44
18 plants.....	1912	99	70.2	.....	23.2	64.6	10.1	2.0	.230	3.0	33.3	48.5	15.2	.....	15.93
	1913	101	70.5	.....	20.8	55.4	23.8	.....	.259	1.0	25.8	47.5	24.8	1.0	18.07
										16 and under 20 cts.	20 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 cts. and over.	
Bottom makers:															
16 plants.....	1910	60	70.5	.....	13.3	80.0	.....	6.7	.335	3.3	40.0	26.7	26.7	3.3	23.26
	1911	55	70.8	.....	16.4	67.3	9.1	7.3	.331	3.6	23.6	47.3	25.5	.....	23.24
	1912	58	70.9	.....	15.5	69.0	8.6	6.9	.347	3.4	25.8	36.2	34.5	.....	24.44
15 plants.....	1912	56	71.4	.....	14.3	64.3	10.7	10.7	.346	3.6	30.4	30.4	35.7	.....	24.50
	1913	60	71.4	.....	16.7	60.0	13.3	10.0	.384	.....	33.3	15.0	45.0	6.7	27.28

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—BLOOMING MILLS—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—				Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.	
				48 and under.	Over 48 and under 72	72	Over 72 and under 84		16 and under 20 cts.	20 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 cts. and over.		
Heaters' helpers: 11 plants.....	1910 1911 1912	34 34 34	73.4 73.5 73.5	..... ..... .....	20.6 20.6 20.6	35.3 35.3 35.3	26.5 17.6 17.6	17.6 26.5 26.5	\$0.344 .363 .354	5.9 5.9 5.9	44.2 29.4 23.5	23.5 32.4 26.5	17.6 42.0 44.1	8.8 11.8	\$24.62 26.71 25.58
11 plants.....	1912	50	67.9	.....	38.0	32.0	12.0	18.0	.352	4.0	16.0	50.0	30.0	.....	23.63
	1913	52	67.2	.....	36.5	38.5	15.4	9.6	.390	.....	27.0	30.8	21.2	21.2	26.01
Shearmen: 19 plants.....	1910 1911 1912	48 46 46	70.0 69.4 69.5	6.3 6.5 6.5	14.6 19.5 19.5	58.3 60.9 60.9	12.5 11.4 8.7	8.3 4.3 4.3	.303 .306 .328	 8.7	50.0 30.4 32.6	43.8 50.0 45.7	 10.9 17.4	6.3 4.3	20.85 20.96 22.39
19 plants.....	1912 1913	52 52	69.8 69.6	5.8 5.8	17.3 17.3	65.4 57.7	7.7 19.2	3.8	.319 .363	3.8	32.7 30.8	44.2 36.5	15.4 21.2	3.8 11.5	21.93 24.80
Table men: 13 plants.....	1910 1911 1912	36 35 35	69.3 68.7 68.7	8.3	19.4 34.2 34.2	55.6 48.6 48.6	5.6 11.4 11.4	11.1 5.7 5.7	.271 .254 .285	16.7 22.8 14.3	55.6 51.4 45.8	19.4 25.7 31.4	 8.6	8.3	18.03 17.05 19.00
12 plants.....	1912 1913	33 31	68.5 68.0	..... .....	36.4 32.3	45.5 54.8	12.1 12.9	6.1	.296 .316	12.1 6.5	45.4 38.8	33.3 32.3	9.1 12.9	9.1 9.7	19.24 20.95
										20 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 cts. and over.	
Manipulators: 19 plants.....	1910 1911 1912	52 48 47	68.4 67.9 66.6	11.5 6.3 12.8	19.3 29.2 25.6	55.8 50.0 46.8	5.8 10.4 10.6	7.7 4.2 4.3	.305 .350 .390	38.5 39.6 27.7	28.8 27.1 29.8	23.1 27.1 23.4	3.8 6.3 8.5	5.8 10.6	24.21 23.26 24.94
19 plants.....	1912	49	66.8	12.2	24.4	49.0	10.2	4.1	.388	26.5	32.7	22.4	8.2	10.2	24.92
	1913	51	66.5	11.8	27.5	47.1	13.7	.....	.432	15.7	37.3	21.6	7.8	17.7	27.60
Pit cranemen: 18 plants.....	1910 1911 1912	99 95 97	69.6 68.8 68.7	..... ..... .....	29.3 33.6 37.2	50.5 49.5 46.4	4.0 6.3 6.2	16.2 10.5 10.3	.315 .309 .328	43.4 41.1 35.0	34.3 154.7 50.5	22.2 4.2 14.4	..... ..... .....	..... ..... .....	21.41 21.01 22.33
19 plants.....	1912 1913	95 99	71.6 71.4	..... .....	25.2 20.2	47.4 54.5	16.8 20.2	10.5 5.1	.319 .373	42.1 10.1	43.2 45.5	14.7 44.4	..... .....	..... .....	22.63 26.48
Roll engineers: 18 plants.....	1910 1911 1912	42 40 41	70.9 70.9 69.2	7.1 7.5 14.6	16.6 20.0 19.5	45.2 37.5 31.7	16.7 20.0 19.5	14.3 15.0 14.6	.392 .385 .428	11.9 10.0	40.5 57.5 58.5	35.7 17.5 4.9	4.8 15.0 31.7	7.1 4.9	27.12 26.66 28.65
19 plants.....	1912 1913	46 46	68.4 68.0	13.0 13.0	21.7 21.7	23.9 28.3	32.6 32.6	8.7 4.3	.437 .491	4.3	52.2 37.0	4.3 17.4	28.3 15.2	10.9 30.4	28.79 32.04
										30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Heaters: 19 plants.....	1910 1911 1912	51 49 53	73.4 73.3 73.0	..... ..... .....	9.8 16.3 15.1	60.8 51.0 58.5	7.8 12.2 7.5	21.6 20.4 18.9	.521 .512 .556	7.8 8.2	29.4 34.7 26.4	45.1 44.9 43.4	13.7 4.1 15.1	3.9 8.2 15.1	37.88 37.50 40.42
19 plants.....	1912 1913	55 53	72.9 73.2	..... .....	14.6 15.1	60.0 50.9	7.3 15.1	18.2 18.9	.552 .604	..... .....	29.1 22.6	41.8 34.0	14.5 18.9	14.5 24.5	40.14 44.18

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—BLOOMING MILLS—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				48 and under.	Over 48 and under 72	72	Over 72 and under 84	84		30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Rollers:															
18 plants.....	1910	46	67.6	13.0	17.4	63.0	.....	6.5	\$0.605	.....	34.8	23.9	23.9	17.4	\$40.00
	1911	41	66.6	7.3	29.2	58.5	4.9	.....	.585	.....	26.8	31.7	29.3	12.2	38.49
	1912	42	65.0	14.3	28.6	52.4	4.8	.....	.652	.....	16.7	31.0	16.7	35.7	41.41
19 plants.....	1912	46	65.9	13.0	26.0	52.2	8.7	.....	.632	4.3	19.6	28.3	15.2	32.6	40.53
	1913	46	66.2	13.0	26.0	47.8	13.0	.....	.703	4.3	8.7	23.9	19.6	43.5	45.11

To aid in making a comparison of the actual data for the four years, which will give an accurate measure of the changes throughout the period, relative or index numbers have been computed from the averages of the preceding table for full-time hours per week, rates of wages per hour, and full-time weekly earnings, for each occupation from 1910 to 1913, inclusive. Such figures appear in the table following. These relative or index numbers are simply percentages for which the data for 1913 are taken as the base, or 100 per cent. The relative for each year is the per cent which the average for that year is of the average for 1913. For example, the relative full-time weekly earnings of pit cranemen in 1910 were 81.9, as compared with 100 in 1913; that is, the full-time weekly earnings of pit cranemen in 1910 were 81.9 per cent of the full-time weekly earnings in this occupation in 1913. The method of computing relative numbers is explained on pages 21 to 23.

The table following also shows for each occupation the per cent of increase or decrease in full-time hours per week, rates of wages per hour, and full-time weekly earnings in 1913, as compared with each specified year preceding. Thus the full-time weekly earnings of pit cranemen in 1913 were 22.1 per cent higher than in 1910, 24.4 per cent higher than in 1911, and 17 per cent higher than in 1912.

In other columns of the table is shown the per cent of change in each year as compared with the year immediately preceding. Thus the full-time weekly earnings of pit cranemen in 1911 were 1.8 per cent lower than in 1910, 6.3 per cent higher in 1912 than in 1911, and 17 per cent higher in 1913 than in 1912. The other occupations and items of the table can be studied in like manner. The percentages of increase and decrease are computed from the relative numbers.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE, IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—BLOOMING MILLS.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Pit cranimen:									
1910.....	101.6	—1.6	.....	82.1	+21.8	.....	81.9	+22.1	.....
1911.....	100.4	— .4	—1.2	80.6	+24.1	— 1.8	80.4	+24.4	— 1.8
1912.....	100.3	— .3	— .1	85.5	+17.0	+ 6.1	85.5	+17.0	+ 6.3
1913.....	100.0	.....	— .3	100.0	.....	+17.0	100.0	.....	+17.0
Heaters:									
1910.....	100.1	— .1	.....	85.6	+16.8	.....	85.1	+17.5	.....
1911.....	100.0	(¹)	— .1	84.2	+18.8	— 1.6	84.3	+18.6	— .9
1912.....	99.6	+ .4	— .4	91.4	+ 9.4	+ 8.6	90.9	+10.0	+ 7.8
1913.....	100.0	.....	+ .4	100.0	.....	+ 9.4	100.0	.....	+10.0
Heater's helpers:									
1910.....	100.9	— .9	.....	87.7	+14.0	.....	87.4	+14.4	.....
1911.....	101.0	—1.0	+ .1	92.6	+ 8.0	+ 5.6	94.9	+ 5.4	+ 8.6
1912.....	101.0	—1.0	(¹)	90.3	+10.7	— 2.5	90.8	+10.1	— 4.3
1913.....	100.0	.....	—1.0	100.0	.....	+10.7	100.0	.....	+10.1
Bottom makers:									
1910.....	99.4	+ .6	.....	87.0	+14.9	.....	85.5	+17.0	.....
1911.....	99.9	+ .1	+ .5	85.9	+16.4	— 1.3	85.4	+17.1	— .1
1912.....	100.0	(¹)	+ .1	90.1	+11.0	+ 4.9	89.8	+11.4	+ 5.2
1913.....	100.0	.....	(¹)	100.0	.....	+11.0	100.0	.....	+11.4
Bottom makers' helpers:									
1910.....	99.6	+ .4	.....	90.9	+10.0	.....	89.7	+11.5	.....
1911.....	99.6	+ .4	(¹)	88.0	+13.6	— 3.2	87.6	+14.2	— 2.3
1912.....	99.7	+ .3	+ .1	93.1	+ 7.4	+ 5.8	92.9	+ 7.6	+ 6.1
1913.....	100.0	.....	+ .3	100.0	.....	+ 7.4	100.0	.....	+ 7.6
Roll engineers:									
1910.....	103.1	—3.0	.....	81.5	+22.7	.....	85.1	+17.5	.....
1911.....	103.1	—3.0	(¹)	80.1	+24.8	—1.7	83.6	+19.6	—1.8
1912.....	100.6	— .6	—2.4	89.0	+12.4	+11.1	89.9	+11.2	+ 7.5
1913.....	100.0	.....	— .6	100.0	.....	+12.4	100.0	.....	+11.2
Rollers:									
1910.....	103.5	—3.4	.....	83.4	+19.9	.....	86.8	+15.2	.....
1911.....	102.0	—2.0	—1.4	80.7	+23.9	— 3.2	83.5	+19.8	— 3.8
1912.....	99.5	+ .5	—2.5	89.9	+11.2	+11.4	89.8	+11.4	+ 7.5
1913.....	100.0	.....	+ .5	100.0	.....	+11.2	100.0	.....	+11.4
Manipulators:									
1910.....	103.2	—3.1	.....	84.1	+18.9	.....	87.6	+14.2	.....
1911.....	102.4	—2.3	— .8	80.6	+24.1	— 4.2	84.2	+18.8	— 3.9
1912.....	100.5	— .5	—1.9	89.8	+11.4	+11.4	90.3	+10.7	+ 7.2
1913.....	100.0	.....	— .5	100.0	.....	+11.4	100.0	.....	+10.7
Table men:									
1910.....	101.6	—1.6	.....	87.3	+14.5	.....	87.1	+14.8	.....
1911.....	100.7	— .7	— .9	81.8	+22.2	— 6.3	82.4	+21.4	— 5.4
1912.....	100.7	— .7	(¹)	91.8	+ 8.9	+12.2	91.8	+ 8.9	+11.4
1913.....	100.0	.....	— .7	100.0	.....	+ 8.9	100.0	.....	+ 8.9
Shearmen:									
1910.....	101.0	—1.0	.....	81.2	+23.2	.....	82.3	+21.5	.....
1911.....	100.1	— .1	— .9	82.0	+22.0	+ 1.0	82.8	+20.8	+ .6
1912.....	100.3	— .3	+ .2	87.9	+13.8	+ 7.2	88.4	+13.1	+ 6.8
1913.....	100.0	.....	— .3	100.0	.....	+13.8	100.0	.....	+13.1
Shearmen's helpers:									
1910.....	100.7	— .7	.....	81.7	+22.4	.....	81.2	+23.2	.....
1911.....	98.7	+1.3	—2.0	81.3	+23.0	— .5	79.9	+25.2	— 1.6
1912.....	99.6	+ .4	+ .9	88.8	+12.6	+ 9.2	88.2	+13.4	+10.4
1913.....	100.0	.....	+ .4	100.0	.....	+12.6	100.0	.....	+13.4
Laborers:									
1910.....	101.2	—1.2	.....	87.5	+14.3	.....	88.1	+13.5	.....
1911.....	100.7	— .7	— .5	88.0	+13.6	+ .6	88.5	+13.0	+ .5
1912.....	100.8	— .8	+ .1	88.6	+12.9	+ .7	89.3	+12.0	+ .9
1913.....	100.0	.....	— .8	100.0	.....	+12.9	100.0	.....	+12.0

¹ No change.

A similar table of relative numbers and percentages is next shown for the blooming-mill department as a whole, as determined by a combination of the data for the several principal productive occupations which are covered in this section of the report. The method of computing the figures of this table is explained on page 23.

From the table following, under "weekly earnings," it is seen that the relative full-time weekly earnings of the department as a whole in 1910 were 84.8 as compared with 100 in 1913. In other words, the full-time weekly earnings in 1910 were 84.8 per cent of such earnings in 1913. The relative increased to 85.8 in 1911, to 89.8 in 1912, and to 100 in 1913, the base year.

The next column shows that full-time weekly earnings in 1912 were 17.9 per cent higher than in 1910, 16.6 per cent higher than in 1911, and 11.4 per cent higher than in 1912.

The third column under "weekly earnings" shows the per cent of increase or decrease in full-time weekly earnings each year as compared with the year immediately preceding. Thus the full-time weekly earnings in 1911 were 1.2 per cent higher than in 1910, in 1912, 4.7 per cent higher than in 1911, and in 1913, 11.4 per cent higher than in 1912. The relative numbers and percentages for full-time hours per week and rates of wages per hour can be read in like manner.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, ALL OCCUPATIONS—BLOOMING MILLS.

Year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (-) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (-) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (-) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
1910.....	101.0	-1.0	.....	83.9	+19.2	.....	84.8	+17.9	.....
1911.....	100.4	-.4	-0.6	84.8	+17.9	+1.1	85.8	+16.6	+1.2
1912.....	100.4	-.4	(¹)	89.5	+11.7	+5.5	89.8	+11.4	+4.7
1913.....	100.0	.....	-.4	100.0	.....	+11.7	100.0	.....	+11.4

¹ No change.

In considering weekly earnings it should be remembered that a reduction of hours tends to reduce weekly earnings just as an increase in wages per hour, of course, tends to increase them. Still another influence on average weekly earnings for the department must be considered; that is, the change in the relative number of employees

in the several occupations from year to year. It is obvious that an increase in the relative number of employees in the lower-paid occupations or a decrease in the relative number of those in the higher-paid ones would tend to lower the average rate and earnings for all occupations, just as an increase in the relative number of employees in the higher-paid occupations or a decrease in the relative number in the lower-paid ones would tend to increase the average.

FULL-TIME WORKING DAYS PER WEEK.

The number and per cent of employees in the principal productive occupations in blooming-mill plants whose customary working time per week was 5 days or turns, or 6 days, or 7 days, or variations thereof, are shown in the following table. The heading "5 days and 6 days alternately" indicates that the plants were running 6 days and 5 nights each week, being shut down for one day and a half each week, and that the employees reported under this heading worked 6 days one week and 5 nights the next. The heading "6 days and 7 days alternately" indicates that the plants were not in operation half a day in each week, the employees reported working 6 turns one week and 7 turns the next week.

The figures are presented for each district and for the four districts combined.

NUMBER AND PER CENT OF EMPLOYEES IN EACH DISTRICT WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1910 TO 1913—BLOOMING MILLS.

[The figures for each group of years are for identical plants.]

District, and num- ber of plants.	Year.	Number of em- ploy- ees.	Number of employees whose cus- tomary working time per week was—					Per cent of employees whose cus- tomary working time per week was—						
			5 days.	5 days and 6 days al- ter- nate- ly.	6 days.	6 days and 7 days al- ter- nate- ly.	6 days, 6 days, and 7 days in rota- tion.	7 days.	5 days.	5 days and 6 days al- ter- nate- ly.	6 days.	6 days and 7 days al- ter- nate- ly.	6 days, 6 days, and 7 days in rota- tion.	7 days.
Eastern:														
3 plants.....	1910	110	.....	70	6	25	.....	9	.....	63.6	5.5	22.7	.....	8.2
	1911	97	.....	52	10	22	.....	13	.....	53.6	10.3	22.7	.....	13.4
	1912	95	.....	46	14	22	.....	13	.....	48.4	14.7	23.2	.....	13.7
3 plants.....	1912	99	.....	48	14	24	.....	13	.....	48.5	14.1	24.2	.....	13.1
	1913	100	.....	50	13	24	.....	13	.....	50.0	13.0	24.0	.....	13.0
Pittsburgh:														
8 plants.....	1910	522	.....	.....	426	83	.....	13	.....	81.6	15.9	.....	.....	2.5
	1911	480	.....	.....	355	86	.....	39	.....	74.0	17.9	.....	.....	8.1
	1912	493	.....	.....	354	92	.....	47	.....	71.8	18.7	.....	.....	9.5
8 plants.....	1912	474	.....	.....	314	35	72	53	.....	66.2	7.4	15.2	.....	11.2
	1913	482	.....	.....	319	38	72	53	.....	66.2	7.9	14.9	.....	11.0
Great Lakes and Middle West:														
6 plants.....	1910	346	.....	.....	205	2	.....	139	.....	59.2	.6	.....	.....	40.2
	1911	296	.....	.....	188	24	.....	84	.....	63.5	8.1	.....	.....	28.4
	1912	328			209	22		97		63.7	6.7			29.6
6 plants.....	1912	326			207	24		95		63.5	7.4			29.1
	1913	327			234	44		49		71.6	13.5			15.0

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NUMBER AND PER CENT OF EMPLOYEES IN EACH DISTRICT WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1910 TO 1913—BLOOMING MILLS—Concluded.

District, and number of plants.	Year.	Number of employees.	Number of employees whose customary working time per week was—					Per cent of employees whose customary working time per week was—					
			5 days.	5 days and 6 days alternately.	6 days.	6 days and 7 days alternately.	6 days, 6 days, and 7 days in rotation.	7 days.	5 days.	5 days and 6 days alternately.	6 days.	6 days and 7 days alternately.	6 days, 6 days, and 7 days in rotation.	7 days.
Southern:													
2 plants.....	1910	86	.....	.....	61	.....	25	.....	.....	70.9	.....	.....	29.1
	1911	75	1	.....	49	12	.....	13	1.3	.....	65.3	16.0	17.3
	1912	72	1	.....	55	12	.....	4	1.4	.....	76.4	16.7	5.6
2 plants.....	1912	76	1	.....	57	14	.....	4	1.3	.....	75.0	18.4	5.3
	1913	89	1	.....	69	14	.....	5	1.1	.....	77.5	15.7	5.6
Total:													
19 plants.....	1910	1,064	.....	70	698	110	.....	186	.....	6.6	65.6	10.3	17.5
	1911	948	1	52	602	144	.....	149	.1	5.5	63.5	15.2	15.7
	1912	988	1	46	632	148	.....	161	.1	4.7	64.0	15.0	16.3
19 plants.....	1912	975	1	48	592	97	72	165	.1	4.9	60.7	9.9	7.4
	1913	998	1	50	635	120	72	120	.1	5.0	63.6	12.0	7.2

In addition to the text tables in the summary, four general tables are presented for the blooming-mill department, as follows:

Table I.—Average full-time weekly earnings and average and classified rates of wages per hour in the United States, by years, 1910 to 1913.

Table II.—Average full-time weekly earnings and average and classified rates of wages per hour in each year, by districts, 1912 and 1913.

Table III.—Average and classified full-time hours per week in the United States, by years, 1910 to 1913.

Table IV.—Average and classified full-time hours per week in each year, by districts, 1912 and 1913.

In Tables I and III, in addition to actual data, percentages computed therefrom are given. The data from these two tables are summarized in the text table on pages 124 to 126.

The order in which the occupations are given in Tables I to IV, inclusive, and in the table of relative numbers, follows that of the processes of manufacture.

"Identical plants," as used in the tables of this report, are identical units of identical establishments, reporting the same occupations in each of two or more consecutive years. For a more extended explanation see page 17.

Figures for each geographical division for each preceding year, back to 1910, corresponding to those given for 1912 and 1913 in Tables II and IV, and descriptions of the occupations which appear in the tables of this report, were given in Bulletin No. 151 of this Bureau, but have been omitted from the present report.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—BLOOMING MILLS.

[The figures for each group of years are for identical plants.]

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.												
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.		
Pit cranemen: 18 plants....	1910	99	69.6	\$0.315	\$21.41					21	22	34	22					
	1911	95	68.8	.309	21.01					9	30	52	4					
	1912	97	68.7	.328	22.33					7	27	49	14					
19 plants....	1912	95	71.6	.319	22.63					13	27	41	14					
	1913	99	71.4	.373	26.48					7	3	45	44					
Heaters: 19 plants....	1910	51	73.4	.521	37.88							4	15	23	7	2		
	1911	49	73.3	.512	37.50							4	17	22	2	4		
	1912	53	73.0	.556	40.42								14	23	8	8		
19 plants....	1912	55	72.9	.552	40.14								16	23	8	8		
	1913	53	73.2	.604	44.18								12	18	10	13		
Heaters' helpers: 11 plants....	1910	34	73.4	.344	24.62				2	4	11	8	6	3				
	1911	34	73.5	.363	26.71				2	4	6	11	7		4			
	1912	34	73.5	.354	25.58				2	5	3	9	15					
11 plants....	1912	50	67.9	.352	23.63				2	5	3	25	15					
	1913	52	67.2	.390	26.01					3	11	16	11	11				
Bottom makers: 16 plants....	1910	60	70.5	.335	23.26				2	10	14	16	16	2				
	1911	55	70.8	.331	23.24				2	6	7	26	14					
	1912	58	70.9	.347	24.44				2	10	5	21	20					
15 plants....	1912	56	71.4	.346	24.50				2	10	7	17	20					
	1913	60	71.4	.384	27.28					6	14	9	27		4			
Bottom makers' helpers: 12 plants....	1910	47	70.3	.251	17.23		4	8		15	8	12						
	1911	46	70.3	.243	16.83		4	7		9	16	10						
	1912	46	70.4	.257	17.84		2	6		9	17	12						
13 plants....	1912	50	70.6	.257	17.95		2	6		9	21	12						
	1913	55	70.8	.276	19.33			2	10	3	17	23						
Roll engineers: 18 plants....	1910	42	70.9	.392	27.12						5	17	15	2	3			
	1911	40	70.9	.385	26.66						4	23	7	6				
	1912	41	69.2	.428	28.65							24	2	13	2			
19 plants....	1912	46	68.4	.437	28.79						2	24	2	13	5			
	1913	46	68.0	.491	32.04							17	8	7	11	3		
Rollers: 18 plants....	1910	46	67.6	.605	40.00								16	11	11	8		
	1911	41	66.6	.585	38.49								11	13	12	5		
	1912	42	65.0	.652	41.41								7	13	7	15		
19 plants....	1912	46	65.9	.632	40.53							2	9	13	7	15		
	1913	46	66.2	.703	45.11							2	4	11	9	20		
Manipulators: 19 plants....	1910	52	68.4	.365	24.21					4	16	15	12	2	3			
	1911	48	67.9	.350	23.26					5	14	13	13	3				
	1912	47	66.6	.390	24.94					3	10	14	11	4	5			
19 plants....	1912	49	66.8	.388	24.92					3	10	16	11	4	5			
	1913	51	66.5	.432	27.60					3	5	19	11	4	6	3		
Table men: 13 plants....	1910	36	69.3	.271	18.03			6		10	10	7		3				
	1911	35	68.7	.254	17.05			6	2	9	9							
	1912	35	68.7	.285	19.00			4	1	8	8	11	3					
12 plants....	1912	33	68.5	.290	19.24			4		7	8	11	3					
	1913	31	68.0	.316	20.95			2		10	2	10	4	3				

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—BLOOMING MILLS—Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.												
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.		
Shearmen:																		
19 plants....	1910	48	70.0	\$0.303	\$20.85	.....	.....	.....	.....	11	13	21	.....	3	.....	.....	.....	.....
	1911	46	69.4	.306	20.96	.....	.....	.....	4	7	7	23	5	.....	.....	.....	.....	.....
	1912	46	69.5	.328	22.39	.....	.....	.....	.....	7	8	21	8	2	.....	.....	.....	.....
19 plants....	1912	52	69.8	.319	21.93	.....	.....	.....	2	9	8	23	8	2	.....	.....	.....	.....
	1913	52	69.6	.363	24.80	.....	.....	.....	.....	11	5	19	11	6	.....	.....	.....	.....
Shearmen's helpers:																		
18 plants....	1910	100	70.9	.218	15.15	.....	14	18	17	26	16	9	.....	.....	.....	.....	.....	.....
	1911	96	69.5	.217	14.90	1	12	17	8	29	26	3	.....	.....	.....	.....	.....	.....
	1912	93	70.1	.237	16.44	.....	1	20	9	27	19	17	.....	.....	.....	.....	.....	.....
18 plants....	1912	99	70.2	.230	15.93	.....	3	24	9	29	19	15	.....	.....	.....	.....	.....	.....
	1913	101	70.5	.259	18.07	.....	1	12	14	20	28	25	1	.....	.....	.....	.....	.....
Laborers:																		
19 plants....	1910	449	74.1	.162	11.97	45	60	344	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1911	363	73.7	.163	12.02	45	30	288	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1912	396	73.8	.164	12.13	41	3	352	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19 plants....	1912	344	74.0	.163	12.08	41	5	298	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1913	352	73.4	.184	13.53	9	34	62	192	55	.....	.....	.....	.....	.....	.....	.....	.....

PER CENT.

Pit cranemen:																		
18 plants....	1910	99	69.6	\$0.315	\$21.41	.....	.....	.....	.....	21.2	22.2	34.3	22.2	.....	.....	.....	.....	.....
	1911	95	68.8	.309	21.01	.....	.....	.....	.....	9.5	31.6	54.7	4.2	.....	.....	.....	.....	.....
	1912	97	68.7	.328	22.33	.....	.....	.....	.....	7.2	27.8	50.5	14.4	.....	.....	.....	.....	.....
19 plants....	1912	95	71.6	.319	22.63	.....	.....	.....	.....	13.7	28.4	43.2	14.7	.....	.....	.....	.....	.....
	1913	99	71.4	.373	26.48	.....	.....	.....	.....	7.1	3.0	45.5	44.4	.....	.....	.....	.....	.....
Heaters:																		
19 plants....	1910	51	73.4	.521	37.88	.....	.....	.....	.....	.....	.....	7.8	29.4	45.1	13.7	3.9	.....	.....
	1911	49	73.3	.512	37.50	.....	.....	.....	.....	.....	.....	8.2	34.7	44.9	4.1	8.2	.....	.....
	1912	53	73.0	.556	40.42	.....	.....	.....	.....	.....	.....	.....	26.4	43.4	15.1	15.1	.....	.....
19 plants....	1912	55	72.9	.552	40.14	.....	.....	.....	.....	.....	.....	.....	29.1	41.8	14.5	14.5	.....	.....
	1913	53	73.2	.604	44.18	.....	.....	.....	.....	.....	.....	.....	22.6	34.0	18.9	24.5	.....	.....
Heaters' help- ers:																		
11 plants....	1910	34	73.4	.344	24.62	.....	.....	.....	5.9	11.8	32.4	23.5	17.6	8.8	.....	.....	.....	.....
	1911	34	73.5	.363	26.71	.....	.....	.....	5.9	11.8	17.6	32.4	20.6	.....	11.8	.....	.....	.....
	1912	34	73.5	.354	25.58	.....	.....	.....	5.9	14.7	8.8	26.5	44.1	.....	.....	.....	.....	.....
11 plants....	1912	50	67.9	.352	23.63	.....	.....	.....	4.0	10.0	6.0	50.0	30.0	.....	.....	.....	.....	.....
	1913	52	67.2	.390	26.01	.....	.....	.....	.....	5.8	21.2	30.8	21.2	21.2	.....	.....	.....	.....
Bottom makers:																		
16 plants....	1910	60	70.5	.335	23.26	.....	.....	.....	3.3	16.7	23.3	26.7	26.7	3.3	.....	.....	.....	.....
	1911	55	70.8	.331	23.24	.....	.....	.....	3.6	10.9	12.7	47.3	25.5	.....	.....	.....	.....	.....
	1912	58	70.9	.347	24.44	.....	.....	.....	3.4	17.2	8.6	36.2	34.5	.....	.....	.....	.....	.....
15 plants....	1912	56	71.4	.346	24.50	.....	.....	.....	3.6	17.9	12.5	30.4	35.7	.....	.....	.....	.....	.....
	1913	60	71.4	.384	27.28	.....	.....	.....	.....	10.0	23.3	15.0	45.0	.....	6.7	.....	.....	.....
Bottom makers' helpers:																		
12 plants....	1910	47	70.3	.251	17.23	.....	8.5	17.0	.....	31.9	17.0	25.5	.....	.....	.....	.....	.....	.....
	1911	46	70.3	.243	16.83	.....	8.7	15.2	.....	19.6	34.8	21.7	.....	.....	.....	.....	.....	.....
	1912	46	70.4	.257	17.84	.....	4.3	13.0	.....	19.6	37.0	26.1	.....	.....	.....	.....	.....	.....
13 plants....	1912	50	70.6	.257	17.95	.....	4.0	12.0	.....	18.0	42.0	24.0	.....	.....	.....	.....	.....	.....
	1913	55	70.8	.276	19.33	.....	.....	3.6	18.2	5.5	30.9	41.8	.....	.....	.....	.....	.....	.....
Roll engineers:																		
18 plants....	1910	42	70.9	.392	27.12	.....	.....	.....	.....	11.9	40.5	35.7	4.8	7.1	.....	.....	.....	.....
	1911	40	70.9	.385	26.66	.....	.....	.....	.....	10.0	57.5	17.5	15.0	.....	.....	.....	.....	.....
	1912	41	69.2	.428	28.65	.....	.....	.....	.....	.....	58.5	4.9	31.7	4.9	.....	.....	.....	.....
19 plants....	1912	46	68.4	.437	28.79	.....	.....	.....	.....	.....	4.3	52.2	4.3	28.3	10.9	.....	.....	.....
	1913	46	68.0	.491	32.04	.....	.....	.....	.....	.....	.....	37.0	17.4	15.2	23.9	6.5	.....	.....

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—BLOOMING MILLS—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time week- ly earnings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Rollers:																
18 plants....	1910	46	67.6	\$0.605	\$40.00	.....	.....	.....	.....	.....	.....	.....	34.8	23.9	23.9	17.4
	1911	41	66.6	.585	38.49	.....	.....	.....	.....	.....	.....	.....	26.8	31.7	29.3	12.2
	1912	42	65.0	.652	41.41	.....	.....	.....	.....	.....	.....	.....	16.7	31.0	16.7	35.7
19 plants....	1912	46	65.9	.632	40.53	.....	.....	.....	.....	.....	.....	4.3	19.6	28.3	15.2	32.6
	1913	46	66.2	.703	45.11	.....	.....	.....	.....	.....	.....	4.3	8.7	23.9	19.6	43.5
Manipulators:																
19 plants....	1910	52	68.4	.365	24.21	.....	.....	.....	7.7	30.8	28.8	23.1	3.8	5.8	.....	.....
	1911	48	67.9	.350	23.26	.....	.....	.....	10.4	29.2	27.1	27.1	6.3	.....	.....	.....
	1912	47	66.6	.390	24.94	.....	.....	.....	6.4	21.3	29.8	23.4	8.5	10.6	.....	.....
19 plants....	1912	49	66.8	.388	24.92	.....	.....	.....	6.1	20.4	32.7	22.4	8.2	10.2	.....	.....
	1913	51	66.5	.432	27.60	.....	.....	.....	5.9	9.8	37.3	21.6	7.8	11.8	5.9	.....
Table men:																
13 plants....	1910	36	69.3	.271	18.03	.....	.....	16.7	.....	27.8	27.8	19.4	.....	8.3	.....	.....
	1911	35	68.7	.254	17.05	.....	.....	17.1	5.7	25.7	25.7	25.7	.....	.....	.....	.....
	1912	35	68.7	.285	19.00	.....	.....	11.4	2.9	22.9	22.9	31.4	8.6	.....	.....	.....
12 plants....	1912	33	68.5	.290	19.24	.....	.....	12.1	.....	21.2	24.2	33.3	9.1	.....	.....	.....
	1913	31	68.0	.316	20.95	.....	.....	6.5	.....	32.3	6.5	32.3	12.9	9.7	.....	.....
Shearmen:																
19 plants....	1910	48	70.0	.303	20.85	.....	.....	.....	.....	22.9	27.1	43.8	.....	6.3	.....	.....
	1911	46	69.4	.306	20.96	.....	.....	.....	8.7	15.2	15.2	50.0	10.9	.....	.....	.....
	1912	46	69.5	.328	22.39	.....	.....	.....	.....	15.2	17.4	45.7	17.4	4.3	.....	.....
19 plants....	1912	52	69.8	.319	21.93	.....	.....	.....	3.8	17.3	15.4	44.2	15.4	3.8	.....	.....
	1913	52	69.6	.363	24.80	.....	.....	.....	.....	21.2	9.6	36.5	21.2	11.5	.....	.....
Shearmen's helpers:																
18 plants....	1910	100	70.9	.218	15.15	.....	14.0	18.0	17.0	26.0	16.0	9.0	.....	.....	.....	.....
	1911	96	69.5	.217	14.90	1.0	12.5	17.7	8.3	30.2	27.1	3.1	.....	.....	.....	.....
	1912	93	70.1	.237	16.44	.....	1.1	21.5	9.7	29.0	20.4	18.3	.....	.....	.....	.....
18 plants....	1912	99	70.2	.230	15.93	.....	3.0	24.2	9.1	29.3	19.2	15.2	.....	.....	.....	.....
	1913	101	70.5	.259	18.07	.....	1.0	11.9	13.9	19.8	27.7	24.8	1.0	.....	.....	.....
Laborers:																
19 plants....	1910	449	74.1	.162	11.97	10.0	13.4	76.6	.....	.....	.....	.....	.....	.....	.....	.....
	1911	363	73.7	.163	12.02	12.4	8.3	79.3	.....	.....	.....	.....	.....	.....	.....	.....
	1912	396	73.8	.164	12.13	10.4	.8	88.9	.....	.....	.....	.....	.....	.....	.....	.....
19 plants....	1912	344	74.0	.163	12.08	11.9	1.5	86.6	.....	.....	.....	.....	.....	.....	.....	.....
	1913	352	73.4	.184	13.53	2.6	9.7	17.6	54.5	15.6	.....	.....	.....	.....	.....	.....

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BLOOMING MILLS.

[The abbreviation "G. L. and M. W." stands for "Great Lakes and Middle West."]

PIT CRANEMEN.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over
1912.																
Eastern.....	3	14	68.7	\$0.283	\$19.25					6	4	2	2			
Pittsburgh.....	8	46	69.3	.331	22.75					6	9	23	8			
G. L. and M. W.....	6	29	76.1	.304	22.98					1	14	14				
Southern.....	2	6	74.0	.380	27.96							2	4			
Total.....	19	95	71.6	.319	22.63					13	27	41	14			
1913.																
Eastern.....	3	14	68.7	.326	21.94					4		6	4			
Pittsburgh.....	8	46	69.7	.378	26.21					2	1	25	18			
G. L. and M. W.....	6	31	74.7	.368	27.46					1	2	12	16			
Southern.....	2	8	73.5	.440	32.15							2	6			
Total.....	19	99	71.4	.373	26.48					7	3	45	44			

HEATERS.

1912.																
Eastern.....	3	6	75.4	\$0.541	\$40.15								2	2	2	
Pittsburgh.....	8	21	69.5	.612	42.70								4	7	5	5
G. L. and M. W.....	6	24	74.5	.497	36.82								9	13	1	1
Southern.....	2	4	78.0	.584	46.61								1	1		2
Total.....	19	55	72.9	.552	40.14								16	23	8	8
1913.																
Eastern.....	3	6	75.4	.605	44.88								2		2	2
Pittsburgh.....	8	21	69.6	.661	46.25								2	6	6	7
G. L. and M. W.....	6	22	75.3	.536	40.11								7	11	2	2
Southern.....	2	4	78.0	.681	54.58								1	1		2
Total.....	19	53	73.2	.604	44.18								12	18	10	13

HEATERS' HELPERS.

1912.																
Eastern.....	3	14	75.9	\$0.372	\$28.21							8	6			
Pittsburgh.....	5	29	61.0	.353	21.21				2	1	3	16	7			
G. L. and M. W.....	2	5	84.0	.240	20.16					4		1				
Southern.....	1	2	72.0	.490	35.28								2			
Total.....	11	50	67.9	.352	23.63				2	5	3	25	15			
1913.																
Eastern.....	3	14	75.9	.397	30.02						6		4	4		
Pittsburgh.....	5	31	61.7	.393	24.05					3	1	15	7	5		
G. L. and M. W.....	2	5	74.4	.282	21.05						4	1				
Southern.....	1	2	72.0	.564	40.61									2		
Total.....	11	52	67.2	.390	26.01					3	11	16	11	11		

BOTTOM MAKERS.

1912.																
Eastern.....	1	2	65.5	\$0.227	\$14.87					2						
Pittsburgh.....	7	32	70.2	.401	28.06						4	9	19			
G. L. and M. W.....	5	17	73.4	.273	19.90				2	6	3	5	1			
Southern.....	2	5	74.4	.288	21.19					2		3				
Total.....	15	56	71.4	.346	24.50				2	10	7	17	20			
1913.																
Eastern.....	1	4	65.5	.297	19.45						4					
Pittsburgh.....	7	32	69.8	.440	30.72						2	5	21		4	
G. L. and M. W.....	5	18	74.7	.318	23.76					4	8		6			
Southern.....	2	6	74.0	.338	24.78					2		4				
Total.....	15	60	71.4	.384	27.28					6	14	9	27		4	

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BLOOMING MILLS—Continued.**BOTTOM MAKERS' HELPERS.**

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Pittsburgh.....	7	34	68.9	\$0.281	\$19.17	.....	.....	2	.....	3	17	12	.....	.....	.....	.....
G. L. and M. W.	4	11	74.2	.212	15.64	.....	.....	.....	3	4	.....	.....	.....	.....	.....	.....
Southern.....	2	5	74.4	.200	14.75	.....	2	.....	.....	3	.....	.....	.....	.....	.....	.....
Total.....	13	50	70.6	.257	17.95	.....	2	6	.....	9	21	12	.....	.....	.....	.....
1913.																
Pittsburgh.....	7	34	68.9	.302	20.64	.....	.....	.....	2	.....	13	19	.....	.....	.....	.....
G. L. and M. W.	4	15	73.6	.234	17.11	.....	.....	.....	8	3	.....	4	.....	.....	.....	.....
Southern.....	2	6	74.0	.238	17.47	.....	.....	2	.....	.....	4	.....	.....	.....	.....	.....
Total.....	13	55	70.8	.276	19.33	.....	.....	2	10	3	17	23	.....	.....	.....	.....

ROLL ENGINEERS.

1912.																
Eastern.....	3	6	69.3	\$0.335	\$26.43	.....	.....	.....	.....	.....	.....	4	2	.....	.....	.....
Pittsburgh.....	8	24	62.6	.485	28.94	.....	.....	.....	.....	.....	.....	10	.....	9	5	.....
G. L. and M. W.	6	13	77.1	.367	28.18	.....	.....	.....	.....	.....	2	9	.....	2	.....	.....
Southern.....	2	3	76.0	.455	34.92	.....	.....	.....	.....	.....	.....	1	.....	2	.....	.....
Total.....	19	46	68.4	.437	28.79	.....	.....	.....	.....	.....	2	24	2	13	5	.....
1913.																
Eastern.....	3	6	69.3	.415	28.19	.....	.....	.....	.....	.....	.....	2	2	2	.....	.....
Pittsburgh.....	8	24	62.8	.540	31.92	.....	.....	.....	.....	.....	.....	9	1	2	9	3
G. L. and M. W.	6	13	75.2	.431	32.35	.....	.....	.....	.....	.....	.....	5	5	3	.....	.....
Southern.....	2	3	76.0	.513	39.36	.....	.....	.....	.....	.....	.....	1	.....	2	.....	.....
Total.....	19	46	68.0	.491	32.04	.....	.....	.....	.....	.....	.....	17	8	7	11	3

ROLLERS.

1912.																
Eastern.....	3	6	69.3	\$0.493	\$33.42	.....	.....	.....	.....	.....	.....	2	.....	4	.....	.....
Pittsburgh.....	8	24	60.5	.705	41.52	.....	.....	.....	.....	.....	.....	.....	4	2	6	12
G. L. and M. W.	6	13	73.0	.548	39.99	.....	.....	.....	.....	.....	.....	.....	4	7	1	1
Southern.....	2	3	72.0	.683	49.18	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	2
Total.....	19	46	65.9	.632	40.53	.....	.....	.....	.....	.....	.....	2	9	13	7	15
1913.																
Eastern.....	3	6	69.3	.499	33.75	.....	.....	.....	.....	.....	.....	2	2	.....	2	.....
Pittsburgh.....	8	24	65.5	.792	46.37	.....	.....	.....	.....	.....	.....	.....	.....	5	4	15
G. L. and M. W.	6	13	73.9	.616	45.52	.....	.....	.....	.....	.....	.....	.....	2	5	3	3
Southern.....	2	3	72.0	.777	55.92	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	2
Total.....	19	46	66.2	.703	45.11	.....	.....	.....	.....	.....	.....	2	4	11	9	20

MANIPULATORS.

1912.																
Eastern.....	3	6	69.3	\$0.343	\$23.48	.....	.....	.....	.....	.....	2	2	2	.....	.....	.....
Pittsburgh.....	8	24	60.5	.457	26.51	.....	.....	.....	.....	.....	2	7	6	4	5	.....
G. L. and M. W.	6	16	74.4	.299	22.23	.....	.....	.....	.....	3	5	7	1	.....	.....	.....
Southern.....	2	3	72.0	.408	29.35	.....	.....	.....	.....	.....	1	.....	2	.....	.....	.....
Total.....	19	49	66.8	.388	24.92	.....	.....	.....	.....	3	10	16	11	4	5	.....
1913.																
Eastern.....	3	8	68.3	.360	24.25	.....	.....	.....	.....	.....	2	4	.....	2	.....	.....
Pittsburgh.....	8	24	60.5	.512	29.40	.....	.....	.....	.....	.....	.....	9	6	.....	6	3
G. L. and M. W.	6	16	73.6	.347	25.64	.....	.....	.....	.....	3	3	5	5	.....	.....	.....
Southern.....	2	3	72.0	.446	32.14	.....	.....	.....	.....	.....	.....	1	.....	2	.....	.....
Total.....	19	51	66.5	.432	27.60	.....	.....	.....	.....	3	5	19	11	4	6	3

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BLOOMING MILLS—Concluded.

TABLE MEN.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	2	6	68.5	\$0.312	\$21.21						2	4				
Pittsburgh.....	5	16	63.8	.338	20.91					2	4	7	3			
G. L. and M. W.	3	7	77.3	.201	15.62			2		5						
Southern.....	2	4	72.0	.221	15.88			2			2					
Total.....	12	33	68.5	.290	19.24			4		7	8	11	3			
1913.																
Eastern.....	2	4	71.1	.270	18.91					2		2				
Pittsburgh.....	5	16	63.8	.355	24.22					1	2	6	4	3		
G. L. and M. W.	3	7	73.9	.221	16.38					7						
Southern.....	2	4	72.0	.249	17.93			2				2				
Total.....	12	31	68.0	.316	20.95			2		10	2	10	4	3		

SHEARMEN.

1912.																
Eastern.....	3	6	69.3	\$0.325	\$22.72						1	5				
Pittsburgh.....	8	28	67.1	.318	20.71				2	6	2	12	4	2		
G. L. and M. W.	6	13	74.8	.303	22.65					3	4	4	2			
Southern.....	2	5	72.0	.360	25.95						1	2				
Total.....	19	52	69.8	.319	21.93				2	9	8	23	8	2		
1913.																
Eastern.....	3	6	69.3	.382	26.19							4	2			
Pittsburgh.....	8	28	67.3	.358	23.24					8	2	9	4	5		
G. L. and M. W.	6	13	73.9	.352	26.12					3	2	4	3	1		
Southern.....	2	5	72.0	.396	28.50						1	2	2			
Total.....	19	52	69.6	.363	24.80					11	5	19	11	6		

SHEARMEN'S HELPERS.

1912.																
Eastern.....	2	10	66.4	\$0.235	\$15.74				1	1	4	4				
Pittsburgh.....	8	53	68.3	.242	16.27				12	2	15	15	9			
G. L. and M. W.	6	28	74.7	.217	16.12				10	6	6		6			
Southern.....	2	8	72.0	.185	13.29			3	1		4					
Total.....	18	99	70.2	.230	15.93			3	24	9	29	19	15			
1913.																
Eastern.....	2	10	66.4	.261	17.26						4	4	2			
Pittsburgh.....	8	55	68.7	.275	18.69					11	8	18	17	1		
G. L. and M. W.	6	28	75.2	.243	18.14				10	2	4	6	6			
Southern.....	2	8	72.0	.203	14.58			1	2	1	4					
Total.....	18	101	70.5	.259	18.07			1	12	14	20	28	25	1		

LABORERS.

1912.																
Eastern.....	3	23	64.8	\$0.141	\$9.05	12	5	6								
Pittsburgh.....	8	143	73.3	.169	12.40			142								
G. L. and M. W.	6	150	76.1	.167	12.70			150								
Southern.....	2	28	73.7	.131	9.65	28										
Total.....	19	344	74.0	.163	12.08	41	5	298								
1913.																
Eastern.....	3	22	65.7	.163	10.65			6	12		4					
Pittsburgh.....	8	147	73.8	.192	14.20				33	71	43					
G. L. and M. W.	6	146	74.0	.191	14.10				17	121	8					
Southern.....	2	37	73.6	.140	10.30	9	28									
Total.....	19	352	73.4	.184	13.53	9	34	62	192	55						

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1913—BLOOMING MILLS.

[The figures for each group of years are for identical plants.]

NUMBER.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Pit cranimen:											
18 plants.....	1910	99	69.6	.....	18	.....	.....	11	50	4	16
	1911	95	68.8	.....	18	.....	.....	14	47	6	10
	1912	97	68.7	.....	18	.....	.....	18	45	6	10
19 plants.....	1912	95	71.6	.....	6	.....	.....	18	45	16	10
	1913	99	71.4	.....	6	.....	.....	14	54	20	5
Heaters:											
19 plants.....	1910	51	73.4	.....	3	.....	.....	2	31	4	11
	1911	49	73.3	.....	3	.....	1	4	25	6	10
	1912	53	73.0	.....	3	.....	1	4	31	4	10
19 plants.....	1912	55	72.9	.....	3	.....	1	4	33	4	10
	1913	53	73.2	.....	3	.....	1	4	27	8	10
Heaters' helpers:											
11 plants.....	1910	34	73.4	.....	3	.....	.....	4	12	9	6
	1911	34	73.5	.....	3	.....	.....	4	12	6	9
	1912	34	73.5	.....	3	.....	.....	4	12	6	9
11 plants.....	1912	50	67.9	.....	15	.....	.....	4	16	6	9
	1913	52	67.2	.....	15	.....	.....	4	20	8	5
Bottom makers:											
16 plants.....	1910	60	70.5	.....	6	.....	.....	2	48	.....	4
	1911	55	70.8	.....	6	.....	.....	3	37	5	4
	1912	58	70.9	.....	6	.....	.....	3	40	5	4
15 plants.....	1912	56	71.4	.....	6	.....	.....	2	36	6	6
	1913	60	71.4	.....	6	.....	.....	4	36	8	6
Bottom makers' helpers:											
12 plants.....	1910	47	70.3	.....	6	.....	.....	.....	37	.....	4
	1911	46	70.3	.....	6	.....	.....	3	30	5	2
	1912	46	70.4	.....	6	.....	.....	3	28	7	2
13 plants.....	1912	50	70.6	.....	6	.....	.....	.....	30	12	2
	1913	55	70.8	.....	6	.....	.....	.....	31	14	4
Roll engineers:											
18 plants.....	1910	42	70.9	3	3	.....	.....	4	19	7	6
	1911	40	70.9	3	3	.....	.....	5	15	8	6
	1912	41	69.2	6	3	.....	.....	5	13	8	6
19 plants.....	1912	46	68.4	6	6	.....	.....	4	11	15	4
	1913	46	68.0	6	6	.....	.....	4	13	15	2
Rollers:											
18 plants.....	1910	46	67.6	6	3	.....	.....	5	29	.....	3
	1911	41	66.6	3	6	.....	.....	6	24	2	.....
	1912	42	65.0	6	6	.....	.....	6	22	2	.....
19 plants.....	1912	46	65.9	6	6	.....	.....	6	24	4	.....
	1913	46	66.2	6	6	.....	.....	6	22	6	.....
Manipulators:											
19 plants.....	1910	52	68.4	6	3	.....	.....	7	29	3	4
	1911	48	67.9	3	6	.....	.....	8	24	5	2
	1912	47	66.6	6	6	.....	.....	6	22	5	2
19 plants.....	1912	49	66.8	6	6	.....	.....	6	24	5	2
	1913	51	66.5	6	6	.....	.....	8	24	7	.....
Table men:											
13 plants.....	1910	36	69.3	3	3	.....	.....	4	20	2	4
	1911	35	68.7	.....	6	.....	.....	6	17	4	2
	1912	35	68.7	.....	6	.....	.....	6	17	4	2
12 plants.....	1912	33	68.5	.....	6	.....	.....	6	15	4	2
	1913	31	68.0	.....	6	.....	.....	4	17	4	.....
Shearmen:											
19 plants.....	1910	48	70.0	3	3	.....	.....	4	28	6	4
	1911	46	69.4	3	3	.....	.....	6	28	4	2
	1912	46	69.5	3	3	.....	.....	6	28	4	2
19 plants.....	1912	52	69.8	3	3	.....	.....	6	34	4	2
	1913	52	69.6	3	3	.....	.....	6	30	10	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK
IN THE UNITED STATES, BY YEARS, 1910 TO 1913—BLOOMING MILLS—
Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Shearmen's helpers:											
18 plants.....	1910	100	70.9	3	9	.....	.....	8	56	10	14
	1911	96	69.5	3	9	.....	.....	14	56	12	2
	1912	93	70.1	.....	9	.....	.....	14	58	10	2
18 plants.....	1912	99	70.2	.....	9	.....	.....	14	64	10	2
	1913	101	70.5	.....	9	.....	.....	12	56	24	.....
Laborers:											
19 plants.....	1910	449	74.1	.....	3	.....	11	59	242	25	109
	1911	363	73.7	.....	4	.....	14	34	214	32	65
	1912	396	73.8	.....	6	.....	12	38	224	44	72
19 plants.....	1912	344	74.0	.....	6	.....	12	38	172	44	72
	1913	352	73.4	.....	4	.....	9	57	190	41	51

PER CENT.

Pit cranemen:											
18 plants.....	1910	99	69.6	.....	18.2	.....	.....	11.1	50.5	4.0	16.2
	1911	95	68.8	.....	18.9	.....	.....	14.7	49.5	6.3	10.5
	1912	97	68.7	.....	18.6	.....	.....	18.6	46.4	6.2	10.3
19 plants.....	1912	95	71.6	.....	6.3	.....	.....	18.9	47.4	16.8	10.5
	1913	99	71.4	.....	6.1	.....	.....	14.1	54.5	20.2	5.1
Heaters:											
19 plants.....	1910	51	73.4	.....	5.9	.....	.....	3.9	60.8	7.8	21.6
	1911	49	73.3	.....	6.1	.....	2.0	8.2	51.0	12.2	20.4
	1912	53	73.0	.....	5.7	.....	1.9	7.5	58.5	7.5	18.9
19 plants.....	1912	55	72.9	.....	5.5	.....	1.8	7.3	60.0	7.3	18.2
	1913	53	73.2	.....	5.7	.....	1.9	7.5	50.9	15.1	18.9
Heaters' helpers:											
11 plants.....	1910	34	73.4	.....	8.8	.....	.....	11.8	35.3	26.5	17.6
	1911	34	73.5	.....	8.8	.....	.....	11.8	35.3	17.6	26.5
	1912	34	73.5	.....	8.8	.....	.....	11.8	35.3	17.6	26.5
11 plants.....	1912	50	67.9	.....	30.0	.....	.....	8.0	32.0	12.0	18.0
	1913	52	67.2	.....	28.8	.....	.....	7.7	38.5	15.4	9.6
Bottom makers:											
16 plants.....	1910	60	70.5	.....	10.0	.....	.....	3.3	80.0	.....	6.7
	1911	55	70.8	.....	10.9	.....	.....	5.5	67.3	9.1	7.3
	1912	58	70.9	.....	10.3	.....	.....	5.2	69.0	8.6	6.9
15 plants.....	1912	56	71.4	.....	10.7	.....	.....	3.6	64.3	10.7	10.7
	1913	60	71.4	.....	10.0	.....	.....	6.7	60.0	13.3	10.0
Bottom makers' helpers:											
12 plants.....	1910	47	70.3	.....	12.8	.....	.....	.....	78.7	.....	8.5
	1911	46	70.3	.....	13.0	.....	.....	6.5	65.2	10.9	4.3
	1912	46	70.4	.....	13.0	.....	.....	6.5	60.9	15.2	4.3
13 plants.....	1912	50	70.6	.....	12.0	.....	.....	.....	60.0	24.0	4.0
	1913	55	70.8	.....	10.9	.....	.....	.....	56.4	25.5	7.3
Roll engineers:											
18 plants.....	1910	42	70.9	7.1	7.1	.....	.....	9.5	45.2	16.7	14.3
	1911	40	70.9	7.5	7.5	.....	.....	12.5	37.5	20.0	15.0
	1912	41	69.2	14.6	7.3	.....	.....	12.2	31.7	19.5	14.6
19 plants.....	1912	46	68.4	13.0	13.0	.....	.....	8.7	23.9	32.6	8.7
	1913	46	68.0	13.0	13.0	.....	.....	8.7	28.3	32.6	4.3
Rollers:											
18 plants.....	1910	46	67.6	13.0	6.5	.....	.....	10.9	63.0	.....	6.5
	1911	41	66.6	7.3	14.6	.....	.....	14.6	58.5	4.9	.....
	1912	42	65.0	14.3	14.3	.....	.....	14.3	52.4	4.8	.....
19 plants.....	1912	46	65.9	13.0	13.0	.....	.....	13.0	52.2	8.7	.....
	1913	46	66.2	13.0	13.0	.....	.....	13.0	47.8	13.0	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1913—BLOOMING MILLS—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Manipulators:											
19 plants.....	1910	52	68.4	11.5	5.8	.....	.....	13.5	55.8	5.8	7.7
	1911	48	67.9	6.3	12.5	.....	.....	16.7	50.0	10.4	4.2
	1912	47	66.6	12.8	12.8	.....	.....	12.8	46.8	10.6	4.3
19 plants.....	1912	49	66.8	12.2	12.2	.....	.....	12.2	49.0	10.2	4.1
	1913	51	66.5	11.8	11.8	.....	.....	15.7	47.1	13.7	.....
Table men:											
13 plants.....	1910	36	69.3	8.3	8.3	.....	.....	11.1	55.6	5.6	11.1
	1911	35	68.7	.....	17.1	.....	.....	17.1	48.6	11.4	5.7
	1912	35	68.7	.....	17.1	.....	.....	17.1	48.6	11.4	5.7
12 plants.....	1912	33	68.5	.....	18.2	.....	.....	18.2	45.5	12.1	6.1
	1913	31	68.0	.....	19.4	.....	.....	12.9	54.8	12.9	.....
Shearmen:											
19 plants.....	1910	48	70.0	6.3	6.3	.....	.....	8.3	58.3	12.5	8.3
	1911	46	69.4	6.5	6.5	.....	.....	13.0	60.9	8.7	4.3
	1912	46	69.5	6.5	6.5	.....	.....	13.0	60.9	8.7	4.3
19 plants.....	1912	52	69.8	5.8	5.8	.....	.....	11.5	65.4	7.7	3.8
	1913	52	69.6	5.8	5.8	.....	.....	11.5	57.7	19.2	.....
Shearmen's helpers:											
18 plants.....	1910	100	70.9	3.0	9.0	.....	.....	8.0	56.0	10.0	14.0
	1911	96	69.5	3.1	9.4	.....	.....	14.6	58.3	12.5	2.1
	1912	93	70.1	.....	9.7	.....	.....	15.1	62.4	10.8	2.2
18 plants.....	1912	99	70.2	.....	9.1	.....	.....	14.1	64.6	10.1	2.0
	1913	101	70.5	.....	8.9	.....	.....	11.9	55.4	23.8	.....
Laborers:											
19 plants.....	1910	449	74.1	.....	.7	.....	2.4	13.1	53.9	5.6	24.3
	1911	363	73.7	.....	1.1	.....	3.9	9.4	59.0	8.8	17.9
	1912	396	73.8	.....	1.5	.....	3.0	9.6	56.6	11.1	18.2
19 plants.....	1912	344	74.0	.....	1.7	.....	3.5	11.0	50.0	12.8	20.9
	1913	352	73.4	.....	1.1	.....	2.6	16.2	54.0	11.6	14.5

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BLOOMING MILLS.

PIT CRANEMEN.

Year and district.	Number of plants.	Number of employ-ees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	3	14	68.7	.....	.....	.....	.....	10	.....	4	.....
Pittsburgh.....	8	46	69.3	.....	6	.....	.....	8	22	10	.....
Great Lakes and Middle West.....	6	29	76.1	.....	.....	.....	.....	.....	19	.....	10
Southern.....	2	6	74.0	.....	.....	.....	.....	.....	4	2	.....
Total.....	19	95	71.6	.....	6	.....	.....	18	45	16	10
1913.											
Eastern.....	3	14	68.7	.....	.....	.....	.....	10	.....	4	.....
Pittsburgh.....	8	46	69.7	.....	6	.....	.....	4	26	10	.....
Great Lakes and Middle West.....	6	31	74.7	.....	.....	.....	.....	.....	22	4	5
Southern.....	2	8	73.5	.....	.....	.....	.....	.....	6	2	.....
Total.....	19	99	71.4	.....	6	.....	.....	14	54	20	5

HEATERS.

1912.											
Eastern.....	3	6	75.4	.....	.....	.....	.....	2	.....	2	2
Pittsburgh.....	8	21	69.5	.....	3	.....	.....	2	14	2	.....
Great Lakes and Middle West.....	6	24	74.5	.....	.....	.....	.....	.....	19	.....	5
Southern.....	2	4	78.0	.....	.....	.....	1	.....	.....	.....	3
Total.....	19	55	72.9	.....	3	.....	1	4	33	4	10
1913.											
Eastern.....	3	6	75.4	.....	.....	.....	.....	2	.....	2	2
Pittsburgh.....	8	21	69.6	.....	.....	.....	.....	2	12	4	.....
Great Lakes and Middle West.....	6	22	75.3	.....	3	.....	.....	.....	15	2	5
Southern.....	2	4	78.0	.....	.....	.....	1	.....	.....	.....	3
Total.....	19	53	73.2	.....	3	.....	1	4	27	8	10

HEATERS' HELPERS.

1912.											
Eastern.....	3	14	75.9	.....	.....	.....	.....	4	.....	6	4
Pittsburgh.....	5	29	61.0	.....	15	.....	.....	.....	14	.....	.....
Great Lakes and Middle West.....	2	5	84.0	.....	.....	.....	.....	.....	.....	.....	5
Southern.....	1	2	72.0	.....	.....	.....	.....	.....	2	.....	.....
Total.....	11	50	67.9	.....	15	.....	.....	4	16	6	9
1913.											
Eastern.....	3	14	75.9	.....	.....	.....	.....	4	.....	6	4
Pittsburgh.....	5	31	61.7	.....	15	.....	.....	.....	14	2	.....
Great Lakes and Middle West.....	2	5	74.4	.....	.....	.....	.....	.....	4	.....	1
Southern.....	1	2	72.0	.....	.....	.....	.....	.....	2	.....	.....
Total.....	11	52	67.2	.....	15	.....	.....	4	20	8	5

BOTTOM MAKERS.

1912.											
Eastern.....	1	2	65.5	.....	.....	.....	.....	2	.....	.....	.....
Pittsburgh.....	7	32	70.2	.....	6	.....	.....	.....	18	4	4
Great Lakes and Middle West.....	5	17	73.4	.....	.....	.....	.....	.....	15	.....	2
Southern.....	2	5	74.4	.....	.....	.....	.....	.....	3	2	.....
Total.....	15	56	71.4	.....	6	.....	.....	2	36	6	6
1913.											
Eastern.....	1	4	65.5	.....	.....	.....	.....	4	.....	.....	.....
Pittsburgh.....	7	32	69.8	.....	6	.....	.....	.....	20	2	4
Great Lakes and Middle West.....	5	18	74.7	.....	.....	.....	.....	.....	12	4	2
Southern.....	2	6	74.0	.....	.....	.....	.....	.....	4	2	.....
Total.....	15	60	71.4	.....	6	.....	.....	4	36	8	6

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BLOOMING MILLS—Continued.

BOTTOM MAKERS' HELPERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Pittsburgh.....	7	34	68.9	.....	6	.....	.....	.....	18	10	.....
Great Lakes and Middle West.....	4	11	74.2	.....	.....	.....	.....	.....	9	.....	2
Southern.....	2	5	74.4	.....	.....	.....	.....	.....	3	2	.....
Total.....	13	50	70.6	.....	6	.....	.....	.....	30	12	2
1913.											
Pittsburgh.....	7	34	68.9	.....	6	.....	.....	.....	18	10	.....
Great Lakes and Middle West.....	4	15	73.6	.....	.....	.....	.....	.....	13	.....	2
Southern.....	2	6	74.0	.....	.....	.....	.....	.....	.....	4	.....
Total.....	13	55	70.8	.....	6	.....	.....	.....	31	14	4

ROLL ENGINEERS.

1912.											
Eastern.....	3	6	60.3	.....	.....	.....	.....	4	.....	2	.....
Pittsburgh.....	8	24	62.6	6	6	.....	.....	.....	4	8	.....
Great Lakes and Middle West.....	6	13	77.1	.....	.....	.....	.....	.....	6	3	4
Southern.....	2	3	76.0	.....	.....	.....	.....	.....	1	2	.....
Total.....	19	46	68.4	6	6	.....	.....	4	11	15	4
1913.											
Eastern.....	3	6	60.3	.....	.....	.....	.....	4	.....	2	.....
Pittsburgh.....	8	24	62.8	6	6	.....	.....	.....	4	8	.....
Great Lakes and Middle West.....	6	13	75.2	.....	.....	.....	.....	.....	8	3	2
Southern.....	2	3	76.0	.....	.....	.....	.....	.....	1	2	.....
Total.....	19	46	68.0	6	6	.....	.....	4	1	15	2

ROLLERS.

1912.											
Eastern.....	3	6	69.3	.....	.....	.....	.....	4	.....	2	.....
Pittsburgh.....	8	24	60.5	6	6	.....	.....	2	10	.....	.....
Great Lakes and Middle West.....	6	13	73.0	.....	.....	.....	.....	.....	11	2	.....
Southern.....	2	3	72.0	.....	.....	.....	.....	.....	3	.....	.....
Total.....	19	46	65.9	6	6	.....	.....	6	24	4	.....
1913.											
Eastern.....	3	6	69.3	.....	.....	.....	.....	4	.....	2	.....
Pittsburgh.....	8	24	60.5	6	6	.....	.....	.....	10	.....	.....
Great Lakes and Middle West.....	6	13	73.9	.....	.....	.....	.....	.....	9	4	.....
Southern.....	2	3	72.0	.....	.....	.....	.....	.....	3	.....	.....
Total.....	19	46	66.2	6	6	.....	.....	6	22	6	.....

MANIPULATORS.

1912.											
Eastern.....	3	6	69.3	.....	.....	.....	.....	4	.....	2	.....
Pittsburgh.....	8	24	60.5	6	6	.....	.....	2	10	.....	.....
Great Lakes and Middle West.....	6	16	74.4	.....	.....	.....	.....	.....	11	3	2
Southern.....	2	3	72.0	.....	.....	.....	.....	.....	3	.....	.....
Total.....	19	49	66.8	6	6	.....	.....	6	24	5	2
1913.											
Eastern.....	3	8	68.3	.....	.....	.....	.....	6	.....	2	.....
Pittsburgh.....	8	24	60.5	6	6	.....	.....	2	10	.....	.....
Great Lakes and Middle West.....	6	16	73.6	.....	.....	.....	.....	.....	11	5	.....
Southern.....	2	3	72.0	.....	.....	.....	.....	.....	3	.....	.....
Total.....	19	51	66.5	6	6	.....	.....	8	24	7	.....

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BLOOMING MILLS—Concluded.

TABLE MEN.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	2	6	68.5					4		2	
Pittsburgh.....	5	16	63.8		6			2	8		
Great Lakes and Middle West....	3	7	77.3						3	2	2
Southern.....	2	4	72.0						4		
Total.....	12	33	68.5		6			6	15	4	2
1913.											
Eastern.....	2	4	71.1					2		2	
Pittsburgh.....	5	16	63.8		6			2	8		
Great Lakes and Middle West....	3	7	73.9						5	2	
Southern.....	2	4	72.0						4		
Total.....	12	31	68.0		6			4	17	4	

SHEARMEN.

1912.											
Eastern.....	3	6	69.3	.....	.....	.....	.....	4	.....	2	.....
Pittsburgh.....	8	28	67.1	3	3	.....	.....	2	20	.....	.....
Great Lakes and Middle West....	6	13	74.8	.....	.....	.....	.....	.....	9	2	2
Southern.....	2	5	72.0	.....	.....	.....	.....	.....	5	.....	.....
Total.....	19	52	69.8	3	3	.....	.....	6	34	4	2
1913.											
Eastern.....	3	6	69.3	.....	.....	.....	.....	4	.....	2	.....
Pittsburgh.....	8	28	67.3	3	3	.....	.....	2	16	4	.....
Great Lakes and Middle West....	6	13	73.9	.....	.....	.....	.....	.....	9	4	.....
Southern.....	2	5	72.0	.....	.....	.....	.....	.....	5	.....	.....
Total.....	19	52	69.6	3	3	.....	.....	6	30	10	.....

SHEARMEN'S HELPERS.

1912.											
Eastern.....	2	10	66.4	.....	.....	.....	.....	8	.....	2	.....
Pittsburgh.....	8	53	68.3	.....	9	.....	.....	6	38	.....	.....
Great Lakes and Middle West....	6	28	74.7	.....	.....	.....	.....	.....	18	8	2
Southern.....	2	8	72.0	.....	.....	.....	.....	.....	8	.....	.....
Total.....	18	99	70.2	.....	9	.....	.....	14	64	10	2
1913.											
Eastern.....	2	10	66.4	.....	.....	.....	.....	8	.....	2	.....
Pittsburgh.....	8	55	68.7	.....	9	.....	.....	4	34	8	.....
Great Lakes and Middle West....	6	28	75.2	.....	.....	.....	.....	.....	14	14	.....
Southern.....	2	8	72.0	.....	.....	.....	.....	.....	8	.....	.....
Total.....	18	101	70.5	.....	9	.....	.....	12	56	24	.....

LABORERS.

1912.											
Eastern.....	3	23	64.8	.....	6	.....	5	8	.....	2	2
Pittsburgh.....	8	143	73.3	.....	.....	.....	3	29	71	19	21
Great Lakes and Middle West....	6	150	76.1	.....	.....	.....	4	1	80	17	48
Southern.....	2	28	73.7	.....	.....	.....	.....	.....	21	6	1
Total.....	19	344	74.0	.....	6	.....	12	38	172	44	72
1913.											
Eastern.....	3	22	65.7	.....	4	.....	5	9	.....	2	2
Pittsburgh.....	8	147	73.8	.....	.....	.....	.....	35	68	22	22
Great Lakes and Middle West....	6	146	74.0	.....	.....	.....	4	13	93	11	25
Southern.....	2	37	73.6	.....	.....	.....	.....	.....	29	6	2
Total.....	19	352	73.4	.....	4	.....	9	57	190	41	51

PLATE MILLS.

SUMMARY.

Summary figures relating to the plate-mill department of the iron and steel industry are given with figures for other departments in the introductory summary on pages 5 to 15. An explanation of the scope of the investigation and the methods employed is given on pages 15 to 23.

Briefly stated, in 1913 the average rate of wages or earnings per hour of employees in the principal productive occupations in plate mills was from 9.2 per cent to 16.8 per cent higher than in any one of the three years preceding, and as the average full-time hours per week were also higher, the average full-time weekly earnings in 1913 were 14 per cent higher than in 1910, 18.3 per cent higher than in 1911, and 9.8 per cent higher than in 1912.

The most significant facts concerning the several plate-mill occupations which are covered in this section of the report are summarized in the table following. Data are presented for the years 1910, 1911, 1912, and 1913, figures for identical plants being grouped together. The data for 1913 represents 1,256 plate-mill employees in the 16 occupations covered, and were obtained from 11 plants having 18 mills in operation.

Referring to the first occupation, laborers, direct comparison can be made of data for 11 identical plants for 1910 to 1912, inclusive, and for a second group of 11 plants for 1912 and 1913.

The first line of the table is read as follows: In 1910 the 11 plate mills for which reports were obtained employed 355 laborers whose average full-time hours of work were 66.8 per week. For 25.1 per cent of the 355 laborers the full-time hours per week were 60 and under; for 58 per cent, over 60 and under 72; for 9.9 per cent, 72; for 0.6 per cent, over 72 and under 84; and for 6.5 per cent the working hours were 84 per week. The average rate of wages or earnings per hour of laborers in the year considered (1910) was \$0.159. Of the total number, 17.7 per cent received 12 and under 14 cents per hour; 10.1 per cent, 14 and under 16 cents; 71.3 per cent, 16 and under 18 cents; and 0.8 per cent, 18 and under 20 cents per hour. The average full-time weekly earnings were \$10.68. The other lines of the table may be read in the same manner.

Referring to the last column of the table, it is seen that in 11 plants the average full-time weekly earnings of laborers were \$10.68 in 1910. In 1911 there was a drop to \$10.51, and in 1912 an increase to \$11.04. In the second group of 11 plants the average was \$11.17 in 1912 and

\$12.62 in 1913. Comparing the average full-time weekly earnings for 1913 in the several occupations, it is seen that the lowest average was that of laborers, which was \$12.62, while with but two exceptions the average full-time weekly earnings for the remaining 15 occupations were from 50 to over 350 per cent higher, the highest being the average for rollers, sheared-plate mills, which was \$49.21.

In this table occupations are grouped according to the wages paid, beginning with the lowest-paid group, and the occupations in each group are presented in alphabetical order.

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—PLATE MILLS.

[The figures for each group of years are for identical plants.]

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings
				60 and under.	Over 60 and under 72	72	Over 72 and under 84	84		12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 cts. and over.	
Laborers:															
11 plants.....	1910	355	66.8	25.1	58.0	9.9	0.6	6.5	\$0.159	17.7	10.1	71.3	0.8	.....	\$10.68
	1911	274	66.2	25.5	51.8	18.2	3.3	1.1	.168	23.7	9.5	66.8	.....	.....	10.51
	1912	287	68.3	25.4	44.9	16.7	7.0	5.9	.160	26.1	7.3	65.2	1.4	.....	11.04
11 plants.....	1912	339	68.9	21.5	36.3	31.0	5.9	5.4	.161	22.1	9.4	65.5	2.9	.....	11.17
	1913	349	69.3	22.3	35.5	32.4	3.2	6.6	.181	.....	24.9	23.2	19.8	32.1	12.62
											Under 16 cts.	16 and under 20 cts.	20 and under 30 cts.	30 and under 40 cts.	40 cts. and over.
Heaters' helpers:															
10 plants.....	1910	111	69.5	.....	66.7	27.9	.....	5.4	.243	9.0	29.7	45.0	5.4	10.8	16.98
	1911	108	67.3	3.7	65.7	29.6	.....	.9	.227	10.2	30.5	48.2	4.6	6.5	15.31
	1912	101	67.5	3.0	64.4	29.7	3.0	.....	.247	.....	29.7	56.4	6.9	6.9	16.71
10 plants.....	1912	113	68.7	2.7	61.1	24.8	8.0	3.5	.243	.....	33.6	54.0	6.2	6.2	16.74
	1913	107	68.7	.....	64.5	23.4	12.1	.....	.252	.....	31.8	44.8	13.1	10.3	17.50
Roll hands, other, sheared-plate mills:															
6 plants.....	1910	14	68.0	.....	71.4	28.6	.....	.....	.263	.....	42.9	14.3	42.9	.....	17.71
	1911	14	68.9	.....	42.9	57.1	.....	.....	.242	14.3	14.3	57.1	.....	14.3	16.64
	1912	14	68.9	.....	42.9	57.1	.....	.....	.279	14.3	14.3	35.7	21.4	14.3	19.16
6 plants.....	1912	16	69.3	.....	37.5	62.5	.....	.....	.269	12.5	18.8	37.6	18.8	12.5	18.54
	1913	16	69.3	.....	37.5	62.5	.....	.....	.280	.....	25.0	31.3	31.3	12.5	19.31
Shearmen's helpers:															
11 plants.....	1910	460	68.4	1.5	56.7	41.7	.....	.....	.215	9.7	47.4	28.5	13.9	.4	14.71
	1911	429	68.4	3.7	40.6	55.7	.....	.....	.206	13.8	52.7	27.3	6.1	.2	14.20
	1912	432	68.6	2.5	39.4	58.1	.....	.....	.223	4.1	56.3	20.2	18.1	1.4	15.42
11 plants.....	1912	392	68.3	2.3	42.3	55.4	.....	.....	.226	3.6	52.8	23.7	18.4	1.5	15.59
	1913	393	68.4	1.5	42.5	56.0	.....	.....	.253	6.3	16.5	49.9	22.6	4.6	17.47
Table men, sheared-plate mills:															
9 plants.....	1910	73	68.3	.....	68.5	31.5	.....	.....	.262	8.2	24.7	37.0	27.4	2.7	17.88
	1911	72	68.1	.....	58.3	41.7	.....	.....	.246	4.2	41.7	29.2	16.7	8.3	16.81
	1912	69	68.3	.....	56.5	43.5	.....	.....	.279	.....	30.4	34.7	17.4	17.4	19.07
9 plants.....	1912	72	68.5	.....	52.8	47.2	.....	.....	.276	.....	27.8	38.9	16.7	16.7	18.90
	1913	75	68.6	.....	50.7	49.3	.....	.....	.310	.....	16.0	38.7	21.3	24.0	21.35

¹ Including 5.2 per cent whose full-time hours per week were 91.

² Including 2.7 per cent whose full-time hours per week were 91.

³ Including 2.9 per cent whose full-time hours per week were 91.

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—PLATE MILLS—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—				Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.	
				60 and under.	Over 60 and under 72	72	Over 72 and under 84		Under 20 cts.	20 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 cts. and over.		
Charging-crane and charging-machine operators:															
9 plants.....	1910	41	71.6	.....	34.1	56.1	.....	9.8	\$0.303	.....	65.8	19.5	14.6	.....	\$21.85
	1911	39	69.4	7.7	33.3	56.4	.....	2.6	.283	12.8	43.5	38.5	2.6	2.6	19.70
	1912	38	69.1	7.9	34.2	57.9	.....	.....	.315	10.5	36.8	36.8	10.5	5.2	21.85
10 plants.....	1912	42	69.6	4.8	33.3	33.3	28.6	.....	.315	9.5	33.4	42.9	9.5	4.8	21.98
	1913	44	70.3	.....	31.8	40.9	27.3	.....	.343	9.1	31.8	27.3	27.3	4.6	24.24
Manipulators, sheared-plate mills:															
9 plants.....	1910	26	68.4	.....	69.2	30.8	.....	.....	.318	.....	53.9	15.4	30.8	.....	21.64
	1911	28	68.1	.....	57.1	42.9	.....	.....	.300	10.7	46.4	25.0	17.9	.....	20.44
	1912	28	68.1	.....	57.1	42.9	.....	.....	.341	14.3	42.9	7.1	28.6	7.1	23.24
9 plants.....	1912	30	68.3	.....	53.3	46.7	.....	.....	.334	13.3	46.7	6.7	26.7	6.7	22.85
	1913	31	68.4	.....	51.6	48.4	.....	.....	.361	6.5	41.9	3.2	35.5	12.9	24.74
Roll engineers:															
11 plants.....	1910	36	71.5	.....	27.8	61.1	11.1	.....	.300	11.2	44.5	33.3	5.6	5.6	21.45
	1911	35	70.8	5.7	34.3	37.1	17.1	5.7	.290	8.6	54.3	28.6	8.6	.....	20.55
	1912	35	71.5	5.7	34.3	34.3	17.1	8.6	.289	8.6	54.3	28.6	8.6	.....	20.78
11 plants.....	1912	37	72.5	5.4	32.4	27.0	21.6	13.5	.287	8.1	56.7	27.0	8.1	.....	20.93
	1913	36	72.8	.....	33.3	30.6	22.2	13.9	.309	8.4	44.4	41.7	5.6	.....	22.63
Roll hands, other, universal mills, 48-inch:															
2 plants.....	1910	6	70.0	.....	33.3	66.7	.....	.....	.299	.....	33.3	66.7	.....	.....	20.93
	1911	4	72.0	.....	.....	100.0	.....	.....	.299	.....	50.0	50.0	.....	.....	21.55
	1912	4	72.0	.....	.....	100.0	.....	.....	.288	.....	50.0	50.0	.....	.....	20.74
3 plants.....	1912	5	69.6	20.0	.....	80.0	.....	.....	.277	.....	60.0	40.0	.....	.....	19.41
	1913	6	72.0	.....	.....	100.0	.....	.....	.288	.....	66.7	33.3	.....	.....	20.74
Screw men, side rolls, universal mills, 48-inch:															
4 plants.....	1910	10	69.2	.....	60.0	40.0	.....	.....	.314	.....	40.0	40.0	20.0	.....	21.77
	1911	9	66.3	22.2	44.4	33.3	.....	.....	.296	.....	44.4	44.4	11.1	.....	19.80
	1912	9	66.3	22.2	44.4	33.3	.....	.....	.271	44.4	.....	55.6	.....	.....	18.12
	1913	8	68.6	.....	50.0	50.0	.....	.....	.294	50.0	.....	25.0	12.5	12.5	20.56
Shearmen:															
11 plants.....	1910	70	67.5	2.9	64.3	32.9	.....	.....	.378	1.4	32.9	32.9	10.0	22.8	25.69
	1911	66	68.0	6.1	42.4	51.5	.....	.....	.356	1.5	37.8	31.8	10.6	18.1	24.45
	1912	68	68.2	5.9	39.7	54.4	.....	.....	.386	.....	36.8	27.9	11.8	23.5	26.61
11 plants.....	1912	69	68.3	7.2	37.7	55.1	.....	.....	.384	.....	37.6	30.4	8.7	23.1	26.48
	1913	69	68.8	2.8	37.7	59.4	.....	.....	.413	2.9	15.9	30.4	23.2	27.5	28.63
Heaters:															
11 plants.....	1910	56	71.0	.....	39.3	53.6	.....	7.1	.508	7.1	14.3	21.4	35.7	21.4	36.35
	1911	55	69.1	5.4	38.2	54.5	.....	1.8	.468	5.5	27.3	20.0	38.2	9.1	32.46
	1912	53	69.4	5.7	35.8	52.8	5.7	.....	.513	5.7	17.0	11.3	45.3	20.8	35.78
11 plants.....	1912	55	69.9	3.6	36.4	32.7	27.3	.....	.513	5.5	16.4	12.7	45.5	20.0	36.02
	1913	54	71.0	.....	37.0	35.2	27.8	.....	.557	.....	11.1	31.5	20.4	37.0	39.93
Rollers, sheared-plate mills:															
9 plants.....	1910	28	68.4	.....	71.4	28.6	.....	.....	.712	21.4	7.1	14.3	7.1	50.0	48.18
	1911	28	68.1	3.6	53.6	42.9	.....	.....	.607	21.4	7.1	14.3	10.7	46.4	41.46
	1912	25	68.5	4.0	48.0	48.0	.....	.....	.729	4.0	8.0	24.0	8.0	56.0	50.03
9 plants.....	1912	27	68.7	.....	48.1	51.9	.....	.....	.711	3.7	7.4	29.6	7.4	51.8	48.93
	1913	26	68.5	.....	50.0	50.0	.....	.....	.718	11.5	7.7	15.4	7.7	57.7	49.21

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—PLATE MILLS—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—				Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				60 and under.	Over 60 and under 72	72	Over 72 and under 84		Under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 cts. and over.	
Rollers, universal mills, 48-inch: 4 plants.....	1910	8	69.5	.....	50.0	50.0	.....	\$0.636	.....	25.0	.....	.....	75.0	\$44.22
	1911	7	68.4	14.3	28.6	57.1	.....	.584	.....	28.6	.....	.....	71.5	40.31
	1912	6	67.8	16.7	33.3	50.0	.....	.581	33.3	.....	.....	.....	66.7	39.78
	1913	6	69.8	.....	33.3	66.7	.....	.672	33.3	.....	.....	.....	66.7	47.81
Screw men, main rolls, universal mills, 48-inch: 4 plants.....	1910	8	69.5	.....	50.0	50.0	.....	.470	.....	25.0	25.0	25.0	25.0	32.75
	1911	7	66.6	28.6	28.6	42.9	.....	.421	14.3	14.3	57.1	14.3	.....	28.23
	1912	7	66.6	28.6	28.6	42.9	.....	.407	28.6	.....	57.1	14.3	.....	27.38
	1913	7	70.1	.....	28.6	71.4	.....	.460	28.6	.....	42.9	.....	28.6	32.66
Screw men, sheared-plate mills: 9 plants.....	1910	28	68.6	.....	64.3	35.7	.....	.421	14.3	35.7	21.4	14.3	14.3	28.75
	1911	28	68.6	3.6	46.4	50.0	.....	.393	25.0	35.7	14.3	17.9	7.1	26.95
	1912	27	68.8	3.7	44.4	51.9	.....	.446	18.5	33.3	11.1	14.8	22.2	30.67
9 plants.....	1912	29	69.0	3.4	41.4	55.2	.....	.435	24.1	31.0	10.3	13.8	20.6	30.00
	1913	29	69.0	.....	44.8	55.2	.....	.482	6.9	44.8	6.9	.....	41.4	33.36

To aid in making a comparison of the actual data for the four years which will give an accurate measure of the changes throughout the period, relative or index numbers have been computed from the averages of the preceding table for full-time hours per week, rates of wages per hour, and full-time weekly earnings, for each occupation from 1910 to 1913, inclusive. Such figures appear in the table following. These relative or index numbers are simply percentages for which the data for 1913 are taken as the base, or 100 per cent. The relative for each year is the per cent which the average for that year is of the average for 1913. For example, the relative full-time weekly earnings of charging-crane and charging-machine operators in 1910 were 90.7 as compared with 100 in 1913; that is, full-time weekly earnings of charging-crane and charging-machine operators in 1910 were 90.7 per cent of the full-time weekly earnings in this occupation in 1913. The method of computing relative numbers is explained on pages 21 to 23. This table also shows for each occupation the per cent of increase or decrease in full-time hours per week, rates of wages per hour, and full-time weekly earnings in 1913, as compared with each specified year preceding. Thus, the full-time weekly earnings of charging-crane and charging-machine operators in 1913 were 10.3 per cent higher than in either 1910 or 1912, and 22.2 per cent higher than in 1911.

In other columns of the table is shown the per cent of change in each year as compared with the year immediately preceding. Thus, the full-time weekly earnings of charging-crane and charging-machine operators in 1912 were 9.8 per cent lower than in 1910; in 1912, 10.9 per cent higher than in 1911, and in 1913, 10.3 per cent higher than in 1912. The other occupations and items of the table can be studied in like manner. The percentages of increase and decrease are computed from the relative numbers.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—PLATE MILLS.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (-) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (-) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (-) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Charging-crane and charging-machine operators:									
1910.....	102.6	-2.5	-----	88.3	+13.3	-----	90.7	+10.3	-----
1911.....	99.4	+ .6	-3.1	82.5	+21.2	- 6.6	81.8	+22.2	- 9.8
1912.....	99.0	+1.0	- .4	91.8	+ 8.9	+11.3	90.7	+10.3	+10.9
1913.....	100.0	-----	+1.0	100.0	-----	+ 8.9	100.0	-----	+10.3
Heaters:									
1910.....	100.7	- .7	-----	91.2	+ 9.6	-----	91.6	+ 9.2	-----
1911.....	98.0	+2.0	-2.7	84.0	+19.0	- 7.9	81.8	+22.2	-10.7
1912.....	98.5	+1.5	+ .5	92.1	+ 8.6	+ 9.6	90.2	+10.9	+10.3
1913.....	100.0	-----	+1.5	100.0	-----	+ 8.6	100.0	-----	+10.9
Heaters' helpers:									
1910.....	103.0	-2.9	-----	94.9	+ 5.4	-----	97.2	+ 2.9	-----
1911.....	99.7	+ .3	-3.2	88.6	+12.9	- 6.6	87.6	+14.2	- 9.9
1912.....	100.0	(1)	+ .3	96.4	+ 3.7	+ 8.8	95.7	+ 4.5	+ 9.2
1913.....	100.0	-----	(1)	100.0	-----	+ 3.7	100.0	-----	+ 4.5
Roll engineers:									
1910.....	99.6	+ .4	-----	96.4	+ 3.7	-----	95.5	+ 4.7	-----
1911.....	98.6	+1.4	-1.0	93.2	+ 7.3	- 3.3	91.5	+ 9.3	- 4.2
1912.....	99.6	+ .4	+1.0	92.9	+ 7.6	- .3	92.5	+ 8.1	+ 1.1
1913.....	100.0	-----	+ .4	100.0	-----	+ 7.6	100.0	-----	+ 8.1
Rollers, sheared-plate mills:									
1910.....	100.1	- .1	-----	96.7	+ 3.4	-----	95.8	+ 4.4	-----
1911.....	99.7	+ .3	- .4	82.4	+21.2	-14.7	82.4	+21.4	-14.0
1912.....	100.3	- .3	+ .6	99.0	+ 1.0	+20.0	99.4	+ .6	+20.6
1913.....	100.0	-----	- .3	100.0	-----	+ 1.0	100.0	-----	+ .6
Screw men, sheared-plate mills:									
1910.....	99.7	+ .3	-----	85.2	+17.4	-----	84.3	+18.6	-----
1911.....	99.7	+ .3	(1)	79.5	+25.8	- 6.7	79.0	+26.6	- 6.3
1912.....	100.0	(1)	+ .3	90.2	+10.9	+13.5	88.9	+11.2	+13.8
1913.....	100.0	-----	(1)	100.0	-----	+10.9	100.0	-----	+11.2
Manipulators, sheared-plate mills:									
1910.....	100.3	- .3	-----	88.3	+15.9	-----	86.0	+16.3	-----
1911.....	99.9	+ .1	- .4	81.4	+22.9	- 5.7	81.2	+23.2	- 5.6
1912.....	99.9	+ .1	(1)	92.5	+ 8.1	+13.6	92.4	+ 8.2	+13.8
1913.....	100.0	-----	+ .1	100.0	-----	+ 8.1	100.0	-----	+ 8.2
Table men, sheared-plate mills:									
1910.....	99.9	+ .1	-----	83.6	+19.6	-----	83.0	+20.5	-----
1911.....	99.6	+ .4	- .3	78.5	+27.4	- 6.1	78.0	+28.2	- 6.0
1912.....	99.9	+ .1	+ .3	89.0	+12.4	+13.4	88.5	+13.0	+13.5
1913.....	100.0	-----	+ .1	100.0	-----	+12.4	100.0	-----	+13.0

1 No change.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—PLATE MILLS—Concluded.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Roll hands, other, sheared-plate mills:									
1910.....	98.7	+1.3	.....	90.6	+10.4	.....	88.7	+12.7	.....
1911.....	100.0	(¹)	+1.3	83.3	+20.0	— 8.1	83.4	+19.9	— 6.0
1912.....	100.0	(¹)	.....	96.1	+ 4.1	+15.4	96.0	+ 4.2	+15.1
1913.....	100.0	.....	(¹)	100.0	.....	+ 4.1	100.0	.....	+ 4.2
Rollers, universal mills, 48-inch:									
1910.....	99.6	+ .4	.....	94.6	+ 5.7	.....	92.5	+ 8.1	.....
1911.....	98.0	+2.0	—1.6	86.9	+15.1	— 8.1	84.3	+18.6	— 8.9
1912.....	97.1	+3.0	— .9	86.5	+15.6	— .5	83.2	+20.2	— 1.3
1913.....	100.0	.....	+3.0	100.0	.....	+15.6	100.0	.....	+20.2
Screw men, main rolls, universal mills, 48-inch:									
1910.....	99.1	+ .9	.....	102.2	— 2.2	.....	100.3	— .3	.....
1911.....	95.0	+5.3	—4.1	91.5	+ 9.3	—10.5	86.4	+15.7	—13.9
1912.....	95.0	+5.3	(¹)	88.5	+13.0	— 3.3	83.8	+19.3	— 3.0
1913.....	100.0	.....	+5.3	100.0	.....	+13.0	100.0	.....	+19.3
Screw men, side rolls, universal mills, 48-inch:									
1910.....	100.9	— .9	.....	106.8	— 6.4	.....	105.9	— 5.6	.....
1911.....	96.6	+3.5	—4.3	100.7	— 7	— 5.7	96.3	+ 3.8	— 9.1
1912.....	96.6	+3.5	(¹)	92.2	+ 8.5	— 8.4	88.1	+13.5	— 8.5
1913.....	100.0	.....	+3.5	100.0	.....	+ 8.5	100.0	.....	+13.5
Roll hands, other, universal mills, 48-inch:									
1910.....	94.0	+6.4	.....	99.9	+ .1	.....	94.4	+ 5.9	.....
1911.....	96.7	+3.4	+2.9	99.9	+ .1	(¹)	97.2	+ 2.9	+ 3.0
1912.....	96.7	+3.4	(¹)	96.2	+ 4.0	— 3.7	93.6	+ 6.8	— 3.7
1913.....	100.0	.....	+3.4	100.0	.....	+ 4.0	100.0	.....	+ 6.8
Shearmen:									
1910.....	98.3	+1.7	.....	91.1	+ 9.8	.....	89.3	+12.0	.....
1911.....	99.0	+1.0	+ .7	85.8	+16.6	— 5.8	85.0	+17.6	— 4.8
1912.....	99.3	+ .7	+ .3	93.0	+ 7.5	+ 8.4	92.5	+ 8.1	+ 8.8
1913.....	100.0	.....	+ .7	100.0	.....	+ 7.5	100.0	.....	+ 8.1
Shearmen's helpers:									
1910.....	99.6	+ .4	.....	86.1	+16.1	.....	85.1	+17.5	.....
1911.....	99.6	+ .4	(¹)	82.5	+21.2	— 4.2	82.2	+21.7	— 3.4
1912.....	99.9	+ .1	+ .3	89.3	+12.0	+ 8.2	89.2	+12.1	+ 8.5
1913.....	100.0	.....	+ .1	100.0	.....	+12.0	100.0	.....	+12.1
Laborers:									
1910.....	97.2	+2.9	.....	88.4	+13.1	.....	85.6	+16.8	.....
1911.....	96.4	+3.7	— .8	87.8	+13.9	— .7	84.3	+18.6	— 1.5
1912.....	99.4	+ .6	+3.1	89.0	+12.4	+ 1.4	88.5	+13.0	+ 5.0
1913.....	100.0	.....	+ .6	100.0	.....	+12.4	100.0	.....	+13.0

¹ No change.

A similar table of relative numbers and percentages is next shown for the plate-mill department as a whole, as determined by a combination of the data for the several principal productive occupations which are covered in this section of the report. The method of computing the figures of this table is explained on page 23.

From the table following, under "weekly earnings," it is seen that the relative full-time weekly earnings of the department as a whole in 1910 were 87.7 as compared with 100 in 1913. In other words, the full-time weekly earnings in 1910 were 87.7 per cent of such earnings in 1913. The relative decreased to 84.5 in 1911, advanced to 91.1 in 1912, and in 1913, the base year, the relative was 100.

The next column shows that the full-time weekly earnings in 1913 were 14 per cent higher than in 1910, 18.3 per cent higher than in 1911, and 9.8 per cent higher than in 1912. The third column under "weekly earnings" shows the per cent of increase or decrease in full-time weekly earnings each year as compared with the year immediately preceding. Thus, the full-time weekly earnings in 1911 were 3.6 per cent lower than in 1910, 7.8 per cent higher in 1912 than in 1911, and 9.8 per cent higher in 1913 than in 1912.

The relative numbers and percentages for full-time hours per week and rates of wages per hour can be read in like manner.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, ALL OCCUPATIONS—PLATE MILLS.

Year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (-) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (-) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (-) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
1910.....	89.3	+0.7	.....	88.8	+12.6	.....	87.7	+14.0	.....
1911.....	88.7	+1.3	-0.6	85.6	+16.8	-3.6	84.5	+18.3	-3.6
1912.....	89.6	+ .4	+ .9	91.6	+ 9.2	+ 7.0	91.1	+ 9.8	+ 7.8
1913.....	100.0	.....	+ .4	100.0	.....	+ 9.2	100.0	.....	+ 9.8

In considering weekly earnings it should be remembered that a reduction of hours tends to reduce weekly earnings, just as an increase in wages per hour, of course, tends to increase them. Still another influence on average weekly earnings for the department must be considered; that is the change in the relative number of employees in the several occupations from year to year. It is obvious that an increase in the relative number of employees in the lower-paid occupations or a decrease in the relative number of those in the higher-paid ones would tend to lower the average rate and earnings for all occupations, just as an increase in the relative number of employees in the higher-paid occupations or a decrease in the relative number in the lower-paid ones would tend to increase the average.

FULL-TIME WORKING DAYS PER WEEK.

The number and per cent of employees in the principal productive occupations in plate-mill plants whose customary working time per week was 5 days or turns, or 6 days, or 7 days, or variations thereof, are shown in the following table.

The heading "5 and 6 days alternately" indicates that the plants were running 6 days and 5 nights each week, being shut down for one day and a half each week, and that the employees reported under this heading worked 6 days one week and 5 nights the next. The heading "6 and 7 days alternately" indicates that the plants were not in operation half a day in each week, the employees reported working 6 turns one week and 7 the next week. The figures are presented for each of the three districts for which reports from plate mills were obtained and for the three districts combined.

NUMBER AND PER CENT OF EMPLOYEES IN EACH DISTRICT WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1910 TO 1913—PLATE MILLS.

[The figures for each group of years are for identical plants.]

District, and number of plants.	Year.	Number of employees.	Number of employees whose customary working time per week was—					Per cent of employees whose customary working time per week was—						
			5 days.	5 days and 6 days alternately.	6 days.	6 days and 7 days alternately.	6 days, 7 days, and 7 days in rotation.	7 days.	5 days.	5 days and 6 days alternately.	6 days.	6 days and 7 days alternately.	6 days, 7 days, and 7 days in rotation.	7 days.
Eastern:														
2 plants.....	1910	343	.....	84	253	.....	.....	6	.....	24.5	73.8	.....	.....	1.7
	1911	343	.....	268	75	.....	.....	.....	.....	78.1	21.9	.....	.....	.....
	1912	330	.....	245	84	.....	.....	1	.....	74.2	25.5	.....	.....	.3
2 plants.....	1912	333	.....	242	86	.....	.....	5	.....	72.7	25.8	.....	.....	1.5
	1913	339	.....	287	45	.....	.....	7	.....	84.7	13.3	.....	.....	2.1
Pittsburgh:														
5 plants.....	1910	709	.....	.....	665	6	.....	38	.....	.....	93.8	0.8	.....	5.4
	1911	621	8	62	492	2	.....	57	1.3	10.0	79.2	.3	.....	9.2
	1912	631	.....	74	477	.....	.....	80	.....	11.7	75.6	.....	.....	12.7
5 plants.....	1912	696	.....	78	526	6	.....	86	.....	11.2	75.6	.9	.....	12.4
	1913	668	.....	78	490	22	.....	78	.....	11.7	73.4	3.3	.....	11.7
Great Lakes and Middle West:														
4 plants.....	1910	278	.....	90	172	.....	.....	16	.....	32.4	61.9	.....	.....	5.8
	1911	239	22	91	121	.....	.....	5	9.2	38.1	50.6	.....	.....	2.1
	1912	242	21	87	125	8	.....	1	8.7	36.0	51.7	3.3	.....	.4
4 plants.....	1912	219	19	91	97	8	.....	4	8.7	41.6	44.3	3.7	.....	1.8
	1913	249	.....	95	142	2	6	4	.....	38.2	57.0	.8	2.4	1.6
Total:														
11 plants.....	1910	1,330	.....	174	1,090	6	.....	60	.....	13.1	82.0	.5	.....	4.5
	1911	1,203	30	421	688	2	.....	62	2.5	35.0	57.2	.2	.....	5.2
	1912	1,203	21	406	686	8	.....	82	1.7	33.7	57.0	.7	.....	6.8
11 plants.....	1912	1,248	19	411	709	14	.....	95	1.5	32.9	56.8	1.1	.....	7.6
	1913	1,256	.....	460	677	24	6	89	.....	36.6	53.9	1.9	.5	7.1

In addition to the text tables in the summary, four general tables are presented for the plate-mill department, as follows:

Table I.—Average full-time weekly earnings and average and classified rates of wages per hour in the United States, by years, 1910 to 1913.

Table II.—Average full-time weekly earnings and average and classified rates of wages per hour in each year, by districts, 1912 and 1913.

Table III.—Average and classified full-time hours per week in the United States, by years, 1910 to 1913.

Table IV.—Average and classified full-time hours per week in each year, by districts, 1912 and 1913.

In Tables I and III, in addition to actual data, percentages computed therefrom are given. The data from these two tables are summarized in the text table on pages 144 to 146.

The order in which the occupations are given in Tables I to IV, inclusive, and in the table of relative numbers follows that of the processes of manufacture.

“Identical plants,” as used in the tables of this report, are identical units of identical establishments, reporting the same occupations in each of two or more consecutive years. For a more extended explanation see page 17.

Figures for each geographical division for each preceding year, back to 1910, corresponding to those given for 1912 and 1913 in Tables II and IV, and descriptions of the occupations which appear in the tables of this report, were given in Bulletin No. 151 of this Bureau, but have been omitted from the present report.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—PLATE MILLS.

(The figures for each group of years are for identical plants.)

NUMBER.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Charging - crane and charging-machine operators:																
9 plants.....	1910	41	71.6	\$0.303	\$21.85					11	16	8	6			
	1911	39	69.4	.283	19.70				5	10	7	15	1	1		
	1912	38	69.1	.315	21.85				4	7	7	14	4	1	1	
10 plants.....	1912	42	69.6	.315	21.98				4	7	7	18	4	1	1	
	1913	44	70.3	.343	24.24				4	6	8	12	12			
Heaters:																
11 plants.....	1910	56	71.0	.508	36.35						4	8	12	20	8	4
	1911	55	69.1	.468	32.46						3	15	11	21	4	1
	1912	53	69.4	.513	35.78					3	9	9	6	24	9	2
11 plants.....	1912	55	69.9	.513	36.02						3	9	7	25	9	2
	1913	54	71.0	.557	39.93							6	17	11	8	12
Heaters' helpers:																
10 plants.....	1910	111	69.5	.243	16.98		10	19	14	22	28	6	12			
	1911	108	67.3	.227	15.31		11	17	16	33	19	5	7			
	1912	101	67.5	.247	16.71			14	16	38	19	7	7			
10 plants.....	1912	113	68.7	.243	16.74			11	27	42	19	7	7			
	1913	107	68.7	.252	17.50			20	14	35	13	14	11			
Roll engineers:																
11 plants.....	1910	36	71.5	.300	21.45			2	2	2	14	12	2	2		
	1911	35	70.8	.290	20.55			3		3	16	10	3			
	1912	35	71.5	.289	20.78			3		3	16	10	3			
11 plants.....	1912	37	72.5	.287	20.93			3		3	18	10	3			
	1913	36	72.8	.309	22.63			1	2	3	13	15	2			
Rollers, sheared-plate mills:																
9 plants.....	1910	28	68.4	.712	48.18					6		2	4	2	2	12
	1911	28	68.1	.607	41.46						6	2	4	3	6	7
	1912	25	68.5	.729	50.03						1	2	6	2	2	12
9 plants.....	1912	27	68.7	.711	48.93						1	2	8	2	2	12
	1913	26	68.5	.718	49.21						3	2	4	2	4	11
Screw men, sheared-plate mills:																
9 plants.....	1910	28	68.6	.421	28.75						4	10	6	4	4	
	1911	28	68.6	.393	26.95					1	6	10	4	5	2	
	1912	27	68.8	.446	30.67					1	4	9	3	4	5	1
9 plants.....	1912	29	69.0	.435	30.00					1	6	9	3	4	5	1
	1913	29	69.0	.482	33.36						2	13	2		8	4
Manipulators, sheared-plate mills:																
9 plants.....	1910	26	68.4	.318	21.64						6	4	8			
	1911	28	68.1	.300	20.44			1	2	9	4	7	5			
	1912	28	68.1	.341	23.24			1	3	4	8	2	8	2		
9 plants.....	1912	30	68.3	.334	22.85			1	3	6	8	2	8	2		
	1913	31	68.4	.361	24.74			2		8	5	1	11	4		
Table men, sheared-plate mills:																
9 plants.....	1910	73	68.2	.262	17.88	2	4		18	19	8	20	2			
	1911	72	68.1	.246	16.81		3		12	18	12	9	12	6		
	1912	69	68.3	.279	19.07			8	13	21	3	12	10	2		
9 plants.....	1912	72	68.5	.276	18.90			7	13	25	3	12	10	2		
	1913	75	68.6	.310	21.35			10	2	20	9	16	16	2		

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—PLATE MILLS—Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Number of em- ployees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earn- ings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Roll hands, other, sheared- plate mills:																	
6 plants.....	1910	14	68.0	\$0.263	\$17.71				4	2		2	6				
	1911	14	68.9	.242	16.64			2	2		5	3		2			
	1912	14	68.9	.279	19.16			2		2	2	3	3	2			
6 plants.....	1912	16	69.3	.269	18.54			2		3	3	3	3	2			
	1913	16	69.3	.280	19.31				2	2	4	1	5	2			
Rollers, univer- sal mills, 48- inch:																	
4 plants.....	1910	8	69.5	.636	44.22								2			2 4	
	1911	7	68.4	.584	40.31								2			3 2	
	1912	6	67.8	.581	39.78							2				1 3	
	1913	6	69.8	.672	47.81							2				2 2	
Screw men, main rolls, universal mills, 48-inch:																	
4 plants.....	1910	8	69.5	.470	32.75								2		2		
	1911	7	66.6	.421	28.23							1	1		4		
	1912	7	66.6	.407	27.38						2				4		
	1913	7	70.1	.460	32.66						2				3	1 1	
Screw men, side rolls, univer- sal mills, 48- inch:																	
4 plants.....	1910	10	69.2	.314	21.77						4		4	2			
	1911	9	66.3	.296	19.80						4		4	1			
	1912	9	66.3	.271	18.12								5				
	1913	8	68.6	.294	20.56						4			1	1		
Roll hands, other, univer- sal mills, 48- inch:																	
2 plants.....	1910	6	70.0	.299	20.93							2	4				
	1911	4	72.0	.299	21.55							2	2				
	1912	4	72.0	.288	20.74							2	2				
3 plants.....	1912	5	69.6	.277	19.41						1	2					
	1913	6	72.0	.288	20.74						3	1	2				
Shearmen:																	
11 plants.....	1910	70	67.5	.378	25.69					1	9	14	23	7	8	4 4	
	1911	66	68.0	.356	24.45					1	9	16	21	7	9		
	1912	68	68.2	.386	26.61						8	17	19	8	9		
11 plants.....	1912	69	68.3	.384	26.48						7	19	21	6	9	7	
	1913	69	68.8	.413	28.63					2	5	6	21	16	10	7 2	
Shearmen's help- ers:																	
11 plants.....	1910	460	68.4	.215	14.71	14	31	145	73	76	55	64	2				
	1911	429	68.4	.206	14.20	14	45	48	178	55	62	26	1				
	1912	432	68.6	.223	15.42	14	4	98	145	69	18	78	6				
11 plants.....	1912	392	68.3	.226	15.59	10	4	84	123	71	22	72	6				
	1913	393	68.4	.253	17.47	10	15	30	35	162	34	89	18				
Laborers:																	
11 plants.....	1910	355	66.8	.159	10.68	63	36	253	3								
	1911	274	66.2	.158	10.51	65	26	183									
	1912	287	68.3	.160	11.04	75	21	187	4								
11 plants.....	1912	339	68.9	.161	11.17	75	32	222	10								
	1913	349	69.3	.181	12.62		87	81	69	100	12						

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—PLATE MILLS—Continued.

PER CENT.

Occupation, and number of plants.	Year.	Number of employ- ees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Charging-crane and charging- machine opera- tors:																	
9 plants.....	1910	41	71.6	\$0.303	\$21.85	.....	.....	.....	26.8	39.0	19.5	14.6	.....	.....	.....	.....	
	1911	39	69.4	.283	19.70	.....	.....	.....	12.8	25.6	17.9	38.5	2.6	2.6	.....	.....	
	1912	38	69.1	.315	21.85	.....	.....	.....	10.5	18.4	18.4	36.8	10.5	2.6	2.6	.....	
10 plants....	1912	42	69.6	.315	21.98	.....	.....	.....	9.5	16.7	16.7	42.9	9.5	2.4	2.4	.....	
	1913	44	70.3	.343	24.24	.....	.....	.....	9.1	13.6	18.2	27.3	27.3	2.3	2.3	.....	
Heaters:																	
11 plants....	1910	56	71.0	.508	36.35	.....	.....	.....	7.1	14.3	21.4	35.7	14.3	7.1	7.1	.....	
	1911	55	69.1	.468	32.46	.....	.....	.....	5.5	27.3	20.0	38.2	7.3	1.8	1.8	.....	
	1912	53	69.4	.513	35.78	.....	.....	.....	5.7	17.0	11.3	45.3	17.0	3.8	3.8	.....	
11 plants....	1912	55	69.9	.513	36.02	.....	.....	.....	5.5	16.4	12.7	45.5	16.4	3.6	3.6	.....	
	1913	54	71.0	.557	39.93	.....	.....	.....	.....	11.1	31.5	20.4	14.8	22.2	22.2	.....	
Heaters' help- ers:																	
10 plants....	1910	111	69.5	.243	16.98	.....	9.0	17.1	12.6	19.8	25.2	5.4	10.8	.....	.....	.....	
	1911	108	67.3	.227	15.31	.....	10.2	15.7	14.8	30.6	17.6	4.6	6.5	.....	.....	.....	
	1912	101	67.5	.247	16.71	.....	.....	13.9	15.8	37.6	18.8	6.9	6.9	.....	.....	.....	
10 plants....	1912	113	68.7	.243	16.74	.....	.....	9.7	23.9	37.2	16.8	6.2	6.2	.....	.....	.....	
	1913	107	68.7	.252	17.50	.....	.....	18.7	13.1	32.7	12.1	13.1	10.3	.....	.....	.....	
Roll engineers:																	
11 plants....	1910	36	71.5	.300	21.45	.....	.....	5.6	5.6	5.6	38.9	33.3	5.6	5.6	.....	.....	
	1911	35	70.8	.290	20.55	.....	.....	8.6	.....	8.6	45.7	28.6	8.6	.....	.....	.....	
	1912	35	71.5	.289	20.78	.....	.....	8.6	.....	8.6	45.7	28.6	8.6	.....	.....	.....	
11 plants....	1912	37	72.5	.287	20.93	.....	.....	8.1	.....	8.1	48.6	27.0	8.1	.....	.....	.....	
	1913	36	72.8	.309	22.63	.....	.....	2.8	5.6	8.3	36.1	41.7	5.6	.....	.....	.....	
Rollers, sheared- plate mills:																	
9 plants.....	1910	28	68.4	.712	48.18	.....	.....	.....	.....	21.4	.....	7.1	14.3	7.1	7.1	42.9	
	1911	28	68.1	.607	41.46	.....	.....	.....	.....	21.4	7.1	14.3	10.7	21.4	25.0	.....	
	1912	25	68.5	.729	50.03	.....	.....	.....	.....	.....	4.0	8.0	24.0	8.0	8.0	48.0	
9 plants.....	1912	27	68.7	.711	48.93	.....	.....	.....	.....	.....	3.7	7.4	29.6	7.4	7.4	44.4	
	1913	26	68.5	.718	49.21	.....	.....	.....	.....	.....	11.5	7.7	15.4	7.7	15.4	42.3	
Screw men, sheared-plate mills:																	
9 plants.....	1910	28	68.6	.421	28.75	.....	.....	.....	.....	14.3	35.7	21.4	14.3	14.3	.....	.....	
	1911	28	68.6	.393	26.95	.....	.....	.....	3.6	21.4	35.7	14.3	17.9	7.1	.....	.....	
	1912	27	68.8	.446	30.67	.....	.....	.....	3.7	14.8	33.3	11.1	14.8	18.5	3.7	.....	
9 plants.....	1912	29	69.0	.435	30.00	.....	.....	.....	3.4	20.7	31.0	10.3	13.8	17.2	3.4	.....	
	1913	29	69.0	.482	33.36	.....	.....	.....	.....	6.9	44.8	6.9	.....	27.6	13.8	.....	
Manipulators, sheared-plate mills:																	
9 plants.....	1910	26	68.4	.318	21.64	.....	.....	.....	.....	30.8	23.1	15.4	30.8	.....	.....	.....	
	1911	28	68.1	.300	20.44	.....	.....	3.6	7.1	32.1	14.3	25.0	17.9	.....	.....	.....	
	1912	28	68.1	.341	23.24	.....	.....	3.6	10.7	14.3	28.6	7.1	28.6	7.1	.....	.....	
9 plants.....	1912	30	68.3	.334	22.85	.....	.....	3.3	10.0	20.0	26.7	6.7	26.7	6.7	.....	.....	
	1913	31	68.4	.361	24.74	.....	.....	6.5	.....	25.8	16.1	3.2	35.5	12.9	.....	.....	
Table men, sheared-plate mills:																	
9 plants.....	1910	73	68.3	.262	17.88	2.7	5.5	.....	24.7	26.0	11.0	27.4	2.7	.....	.....	.....	
	1911	72	68.1	.246	16.81	.....	4.2	16.7	25.0	16.7	12.5	16.7	8.3	.....	.....	.....	
	1912	69	68.3	.279	19.07	.....	.....	11.6	18.8	30.4	4.3	17.4	14.5	2.9	.....	.....	
9 plants.....	1912	72	68.5	.276	18.90	.....	.....	9.7	18.1	34.7	4.2	16.7	13.9	2.8	.....	.....	
	1913	75	68.6	.310	21.35	.....	.....	13.3	2.7	26.7	12.0	21.3	21.3	2.7	.....	.....	

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—PLATE MILLS—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Num- ber of employ- ees.	Aver- age full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Roll hands, other, sheared-plate mills:																	
6 plants.....	1910	14	68.0	\$0.263	\$17.71			28.6	14.3		14.3	42.9					
	1911	14	68.9	.242	16.64		14.3	14.3		35.7	21.4		14.3				
	1912	14	68.9	.279	19.16		14.3		14.3	14.3	21.4	21.4	14.3				
6 plants.....	1912	16	69.3	.269	18.54		12.5		18.8	18.8	18.8	18.8	12.5				
	1913	16	69.3	.280	19.31			12.5	12.5	25.0	6.3	31.3	12.5				
Rollers, universal mills, 48-inch:																	
4 plants.....	1910	8	69.5	.636	44.22							25.0			25.0	50.0	
	1911	7	68.4	.584	40.31							28.6			42.9	28.6	
	1912	6	67.8	.581	39.78						33.3				16.7	50.0	
	1913	6	69.8	.672	47.81						33.3				33.3	33.3	
Screw men, main rolls, universal mills, 48-inch:																	
4 plants.....	1910	8	69.5	.470	32.75							25.0	25.0	25.0	25.0		
	1911	7	66.6	.421	28.23						14.3	14.3			14.3		
	1912	7	66.6	.407	27.38					28.6			57.1		14.3		
	1913	7	70.1	.460	32.66					28.6			42.9		14.3	14.3	
Screw men, side rolls, universal mills, 48-inch:																	
4 plants.....	1910	10	69.2	.314	21.77				40.0			40.0	20.0				
	1911	9	66.3	.296	19.80				44.4			44.4	11.1				
	1912	9	66.3	.271	18.12				44.4			55.6					
	1913	8	68.6	.294	20.56				50.0			25.0	12.5	12.5			
Roll hands, other, universal mills, 48-inch:																	
2 plants.....	1910	6	70.0	.299	20.93						33.3	66.7					
	1911	4	72.0	.299	21.55						50.0	50.0					
	1912	4	72.0	.288	20.74						50.0	50.0					
3 plants.....	1912	5	69.6	.277	19.41					20.0	40.0	40.0					
	1913	6	72.0	.288	20.74					50.0	16.7	33.3					
Shearmen:																	
11 plants.....	1910	70	67.5	.378	25.69				1.4	12.9	20.0	32.9	10.0	11.4	5.7	5.7	
	1911	66	68.0	.356	24.45				1.5	13.6	24.2	31.8	10.6	13.6	4.5		
	1912	68	68.2	.386	26.61					11.8	25.0	27.9	11.8	13.2	10.3		
11 plants.....	1912	69	68.3	.384	26.48					10.1	27.5	30.4	8.7	13.0	10.1		
	1913	69	68.8	.413	28.63				2.9	7.2	8.7	30.4	23.2	14.5	10.1	2.9	
Shearmen's helpers:																	
11 plants.....	1910	460	68.4	.215	14.71	3.0	6.7	31.5	15.9	16.5	12.0	13.9	.4				
	1911	429	68.4	.206	14.20	3.3	10.5	11.2	41.5	12.8	14.5	6.1	.2				
	1912	432	68.6	.223	15.42	3.2	.9	22.7	33.6	16.0	4.2	18.1	1.4				
11 plants.....	1912	392	68.3	.226	15.59	2.6	1.0	21.4	31.4	18.1	5.6	18.4	1.5				
	1913	393	68.4	.253	17.47	2.5	3.8	7.6	8.9	41.2	8.7	22.6	4.6				
Laborers:																	
11 plants.....	1910	355	66.8	.159	10.68	17.7	10.1	71.3	.8								
	1911	274	66.2	.158	10.51	23.7	9.5	66.8									
	1912	287	68.3	.160	11.04	26.1	7.3	65.2	1.4								
11 plants.....	1912	339	68.9	.161	11.17	22.1	9.4	65.5	2.9								
	1913	349	69.3	.181	12.62		24.9	23.2	19.8	28.7	3.4						

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—PLATE MILLS.

[The abbreviation "G. L. and M. W." stands for "Great Lakes and Middle West."]

CHARGING-CRANE AND CHARGING-MACHINE OPERATORS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	2	8	66.2	\$0.240	\$15.85					6	2					
Pittsburgh.....	4	24	71.5	.313	22.53				4		4	12	4			
G. L. and M. W.....	4	10	67.9	.378	25.55					1	1	6		1	1	
Total.....	10	42	69.6	.315	21.98				4	7	7	18	4	1	1	
1913.																
Eastern.....	2	8	66.2	.246	16.30					6	2					
Pittsburgh.....	4	24	71.5	.361	26.00				4			12	8			
G. L. and M. W.....	4	12	70.5	.373	26.01						6			4	1	1
Total.....	10	44	70.3	.343	24.24				4	6	8	12	12	1	1	

HEATERS.

1912.																
Eastern.....	2	18	67.0	\$0.365	\$24.47						3	9	6			
Pittsburgh.....	5	26	71.8	.579	41.68								1	16	9	
G. L. and M. W.....	4	11	69.9	.599	41.54									9		2
Total.....	11	55	69.9	.513	36.02						3	9	7	25	9	2
1913.																
Eastern.....	2	18	67.0	.426	28.78							6	8	4		
Pittsburgh.....	5	25	73.2	.621	45.82								6	5	6	8
G. L. and M. W.....	4	11	72.6	.625	44.77								3	2	2	4
Total.....	11	54	71.0	.557	39.93							6	17	11	8	12

HEATERS' HELPERS.

1912.																
Eastern.....	2	50	65.6	\$0.211	\$13.84			8	12	24	6					
Pittsburgh.....	5	50	72.6	.238	17.51			3	15	16	9	7				
G. L. and M. W.....	3	13	65.9	.352	24.98					2	4		7			
Total.....	10	113	68.7	.243	16.74			11	27	42	19	7	7			
1913.																
Eastern.....	2	50	65.7	.203	13.35			16	6	24	4					
Pittsburgh.....	5	43	71.9	.270	19.75			4	8	11	4	12	4			
G. L. and M. W.....	3	14	69.3	.375	25.44						5	2	7			
Total.....	10	107	68.7	.252	17.50			20	14	35	13	14	11			

ROLL ENGINEERS.

1912.																
Eastern.....	2	10	65.6	\$0.230	\$15.11			3		3	4					
Pittsburgh.....	5	18	77.2	.310	23.77						8	8	2			
G. L. and M. W.....	4	9	70.7	.306	21.71						6	2	1			
Total.....	11	37	72.5	.287	20.93			3		3	18	10	3			
1913.																
Eastern.....	2	10	65.6	.257	16.85			1	2	3	2	2				
Pittsburgh.....	5	17	76.8	.335	25.64						7	8	2			
G. L. and M. W.....	4	9	73.3	.318	23.35						4	5				
Total.....	11	36	72.8	.309	22.63			1	2	3	13	15	2			

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—PLATE MILLS—Continued.**ROLLERS, SHEARED-PLATE MILLS.**

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	2	9	65.4	\$0.421	\$27.55						1	2	6			
Pittsburgh.....	5	14	71.1	.752	53.49								2	2	2	8
G. L. and M. W.	2	4	67.6	1.224	81.12											4
Total.....	9	27	68.7	.711	48.93						1	2	8	2	2	12
1913.																
Eastern.....	2	9	65.4	.428	28.07						3	2	2		2	
Pittsburgh.....	5	13	71.0	.709	50.45								2	2	2	7
G. L. and M. W.	2	4	67.6	1.398	92.78											4
Total.....	9	26	68.5	.718	49.21						3	2	4	2	4	11

SCREW MEN, SHEARED-PLATE MILLS.

1912.																
Eastern.....	2	9	65.6	\$0.349	\$22.88						2	6	1			
Pittsburgh.....	5	16	71.2	.428	30.50					1	4	3	2	2	4	
G. L. and M. W.	2	4	67.6	.656	44.00									2	1	1
Total.....	9	29	69.0	.435	30.00					1	6	9	3	4	5	1
1913.																
Eastern.....	2	9	65.6	.374	24.51							7	2			
Pittsburgh.....	5	14	71.1	.466	33.23						2	6			4	2
G. L. and M. W.	2	6	69.1	.682	46.93										4	2
Total.....	9	29	69.0	.482	33.36						2	13	2		8	4

MANIPULATORS, SHEARED-PLATE MILLS.

1912.																
Eastern.....	2	8	65.6	\$0.256	\$16.77				2		6					
Pittsburgh.....	5	16	70.4	.319	22.63			1	1	6	2		6			
G. L. and M. W.	2	6	66.2	.480	31.52							2	2	2		
Total.....	9	30	68.3	.334	22.85			1	3	6	8	2	8	2		
1913.																
Eastern.....	2	8	65.6	.281	18.44					4	2	1	1			
Pittsburgh.....	5	15	70.3	.335	23.82			2		4	3		4	2		
G. L. and M. W.	2	8	67.6	.488	32.79								6	2		
Total.....	9	31	68.4	.361	24.74			2		8	5	1	11	4		

TABLE MEN, SHEARED-PLATE MILLS.

1912.																
Eastern.....	2	26	65.7	\$0.210	\$13.77			2	8	13	3					
Pittsburgh.....	5	34	70.9	.272	19.33			5	5	12		6	6			
G. L. and M. W.	2	12	67.6	.430	28.79							6	4	2		
Total.....	9	72	68.5	.276	18.90			7	13	25	3	12	10	2		
1913.																
Eastern.....	2	26	65.7	.233	15.29			6	2	6	9	3				
Pittsburgh.....	5	30	70.7	.295	20.99			4		14		4	8			
G. L. and M. W.	2	19	69.2	.439	30.21							9	8	2		
Total.....	9	75	68.6	.310	21.35			10	2	20	9	16	16	2		

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—PLATE MILLS—Continued.

ROLL HANDS, OTHER, SHEARED-PLATE MILLS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	1	2	65.3	\$0.181	\$11.81				2							
Pittsburgh.....	4	12	70.9	.248	17.72		2		1	3	3	3				
G. L. and M.W.	1	2	63.3	.477	30.17									2		
Total.....	6	16	69.3	.269	18.54		2		3	3	3	3	2			
1913.																
Eastern.....	1	2	65.3	.180	11.75				2							
Pittsburgh.....	4	12	70.9	.261	18.63			2		4	1	5				
G. L. and M.W.	1	2	63.3	.490	30.96								2			
Total.....	6	16	69.3	.280	19.31			2	2	4	1	5	2			

ROLLERS, UNIVERSAL MILLS, 48-INCH.

1912.																
Eastern.....	1	2	65.3	\$0.290	\$18.92						2					
Pittsburgh.....	1	2	72.0	.744	53.53											2
G. L. and M.W.	2	2	66.0	.708	46.90										1	1
Total.....	4	6	67.8	.581	39.78						2				1	3
1913.																
Eastern.....	1	2	65.3	.261	17.03						2					
Pittsburgh.....	1	2	72.0	1.078	77.62											2
G. L. and M.W.	2	2	72.0	.678	48.78										2	
Total.....	4	6	69.8	.672	47.81						2				2	2

SCREW MEN, MAIN ROLLS, UNIVERSAL MILLS, 48-INCH.

1912.																
Eastern.....	1	2	65.3	\$0.242	\$15.79					2						
Pittsburgh.....	1	2	72.0	.488	35.14								2			
G. L. and M.W.	2	3	64.0	.463	29.94								2	1		
Total.....	4	7	66.6	.407	27.38					2			4	1		
1913.																
Eastern.....	1	2	65.3	.227	14.81					2						
Pittsburgh.....	1	2	72.0	.704	50.69										1	1
G. L. and M.W.	2	3	72.0	.452	32.54								3			
Total.....	4	7	70.1	.460	32.66					2			3		1	1

SCREW MEN, SIDE ROLLS, UNIVERSAL MILLS, 48-INCH.

1912.																
Eastern.....	1	4	65.3	\$0.194	\$12.66				4							
Pittsburgh.....	1	2	72.0	.345	24.84							2				
G. L. and M.W.	2	3	64.0	.324	20.91							3				
Total.....	4	9	66.3	.271	18.12				4			5				
1913.																
Eastern.....	1	4	65.3	.181	11.81				4							
Pittsburgh.....	1	2	72.0	.497	35.75								1	1		
G. L. and M.W.	2	2	72.0	.318	22.86							2				
Total.....	4	8	68.0	.294	20.56				4			2	1	1		

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—PLATE MILLS—Concluded.**ROLL HANDS, OTHER, UNIVERSAL MILLS, 48-INCH.**

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Pittsburgh.....	1	2	72.0	\$0.264	\$19.01						2					
G. L. and M. W.	2	3	68.0	.286	19.68					1		2				
Total.....	3	5	69.6	.277	19.41					1	2	2				
1913.																
Pittsburgh.....	1	2	72.0	.365	26.28							2				
G. L. and M. W.	2	4	72.0	.250	17.96					3	1					
Total.....	3	6	72.0	.288	20.74					3	1	2				

SHEARMEN.

1912.																
Eastern.....	2	16	65.9	\$0.273	\$17.94					4	10	2				
Pittsburgh.....	5	36	70.3	.466	32.78						3	11	6	9	7	
G. L. and M. W.	4	17	66.2	.315	21.19					3	6	8				
Total.....	11	69	68.3	.384	26.48					7	19	21	6	9	7	
1913.																
Eastern.....	2	16	65.9	.298	19.63				2	5	2	3	4			
Pittsburgh.....	5	36	70.9	.485	34.37						2	9	6	10	7	2
G. L. and M. W.	4	17	66.9	.368	24.94						2	9	6			
Total.....	11	69	68.8	.413	28.63				2	5	6	21	16	10	7	2

SHEARMEN'S HELPERS.

1912.																
Eastern.....	2	81	65.4	\$0.182	\$11.94	10	4	19	20	28						
Pittsburgh.....	5	223	70.8	.253	17.95			13	76	41	21	66	6			
G. L. and M. W.	4	88	64.8	.198	12.99			52	27	2	1	6				
Total.....	11	392	68.3	.226	15.59	10	4	84	123	71	22	72	6			
1913.																
Eastern.....	2	81	65.3	.200	13.09	10	15	21	1	12	18	4				
Pittsburgh.....	5	220	70.9	.275	19.62			9	34	65	15	85	12			
G. L. and M. W.	4	92	65.2	.248	16.20					85	1		6			
Total.....	11	393	68.4	.253	17.47	10	15	30	35	162	34	89	18			

LABORERS.

1912.																
Eastern.....	2	88	62.6	\$0.133	\$8.35	75	13									
Pittsburgh.....	5	219	70.9	.172	12.22		14	195	10							
G. L. and M. W.	4	32	72.4	.162	11.73		5	27								
Total.....	11	339	68.9	.161	11.17	75	32	222	10							
1913.																
Eastern.....	2	94	62.8	.151	9.48		84	10								
Pittsburgh.....	5	211	71.5	.193	13.82			68	35	96	12					
G. L. and M. W.	4	44	72.3	.188	13.54		3	3	34	4						
Total.....	11	349	69.3	.181	12.62		87	81	69	100	12					

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1913—PLATE MILLS.

[The figures for each group of years are for identical plants.]

NUMBER.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Charging-crane and charging-machine operators: 9 plants.....	1910	41	71.6	.....	.....	.....	.....	14	23	.....	4
	1911	39	69.4	.....	.....	1	2	13	22	.....	1
	1912	38	69.1	.....	.....	1	2	13	22	.....	.....
10 plants.....	1912	42	69.6	.....	.....	.....	2	14	14	12	.....
	1913	44	70.3	.....	.....	.....	.....	14	18	12	.....
Heaters: 11 plants.....	1910	56	71.0	.....	.....	.....	.....	22	30	.....	4
	1911	55	69.1	.....	.....	1	2	21	30	.....	1
	1912	53	69.4	.....	.....	1	2	19	28	3	.....
11 plants.....	1912	55	69.9	.....	.....	.....	2	20	18	15	.....
	1913	54	71.0	.....	.....	.....	.....	20	19	15	.....
Heaters' helpers: 10 plants.....	1910	111	69.5	.....	.....	.....	.....	74	31	.....	6
	1911	108	67.3	.....	.....	.....	4	71	32	.....	1
	1912	101	67.5	.....	.....	.....	3	65	30	3	.....
10 plants.....	1912	113	68.7	.....	.....	.....	3	69	28	9	4
	1913	107	68.7	.....	.....	.....	.....	69	25	13	.....
Roll engineers: 11 plants.....	1910	36	71.5	.....	.....	.....	.....	10	22	4	.....
	1911	35	70.8	.....	.....	.....	2	12	13	6	2
	1912	35	71.5	.....	.....	.....	2	12	12	6	3
11 plants.....	1912	37	72.5	.....	.....	.....	2	12	10	8	5
	1913	36	72.8	.....	.....	.....	.....	12	11	8	5
Rollers, sheared-plate mills: 9 plants.....	1910	28	68.4	.....	.....	.....	.....	20	8	.....	.....
	1911	28	68.1	.....	.....	1	.....	15	12	.....	.....
	1912	25	68.5	.....	.....	1	.....	12	12	.....	.....
9 plants.....	1912	27	68.7	.....	.....	.....	.....	13	14	.....	.....
	1913	26	68.5	.....	.....	.....	.....	13	13	.....	.....
Screw men, sheared-plate mills: 9 plants.....	1910	28	68.6	.....	.....	.....	.....	18	10	.....	.....
	1911	28	68.6	.....	.....	1	.....	13	14	.....	.....
	1912	27	68.8	.....	.....	1	.....	12	14	.....	.....
9 plants.....	1912	29	69.0	.....	.....	1	.....	12	16	.....	.....
	1913	29	69.0	.....	.....	.....	.....	13	16	.....	.....
Manipulators, sheared-plate mills: 9 plants.....	1910	26	68.4	.....	.....	.....	.....	18	8	.....	.....
	1911	28	68.1	.....	.....	.....	.....	16	12	.....	.....
	1912	28	68.1	.....	.....	.....	.....	16	12	.....	.....
9 plants.....	1912	30	68.3	.....	.....	.....	.....	16	14	.....	.....
	1913	31	68.4	.....	.....	.....	.....	16	15	.....	.....
Table men, sheared-plate mills: 9 plants.....	1910	73	68.3	.....	.....	.....	.....	50	23	.....	.....
	1911	72	68.1	.....	.....	.....	.....	42	30	.....	.....
	1912	69	68.3	.....	.....	.....	.....	39	30	.....	.....
9 plants.....	1912	72	68.5	.....	.....	.....	.....	38	34	.....	.....
	1913	78	68.6	.....	.....	.....	.....	38	37	.....	.....
Roll hands, other, sheared-plate mills: 6 plants.....	1910	14	68.0	.....	.....	.....	.....	10	4	.....	.....
	1911	14	68.9	.....	.....	.....	.....	6	8	.....	.....
	1912	14	68.9	.....	.....	.....	.....	6	8	.....	.....
6 plants.....	1912	16	69.3	.....	.....	.....	.....	6	10	.....	.....
	1913	16	69.3	.....	.....	.....	.....	6	10	.....	.....
Rollers, universal mills, 48-inch: 4 plants.....	1910	8	69.5	.....	.....	.....	.....	4	4	.....	.....
	1911	7	68.4	.....	.....	.....	1	2	4	.....	.....
	1912	6	67.8	.....	.....	.....	1	2	3	.....	.....
	1913	6	69.8	.....	.....	.....	.....	2	4	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1913—PLATE MILLS—Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Screw men, main rolls, universal mills, 48-inch: 4 plants.....	1910	8	69.5	.....	.....	.....	.....	4	4	.....	.....
	1911	7	66.6	.....	.....	.....	2	2	3	.....	.....
	1912	7	66.6	.....	.....	.....	2	2	3	.....	.....
	1913	7	70.1	.....	.....	.....	.....	2	5	.....	.....
Screw men, side rolls, universal mills, 48-inch: 4 plants.....	1910	10	69.2	.....	.....	.....	.....	6	4	.....	.....
	1911	9	66.3	.....	.....	.....	2	4	3	.....	.....
	1912	9	66.3	.....	.....	.....	2	4	3	.....	.....
	1913	8	68.6	.....	.....	.....	.....	4	4	.....	.....
Roll hands, other, universal mills, 48-inch: 2 plants.....	1910	6	70.0	.....	.....	.....	.....	2	4	.....	.....
	1911	4	72.0	.....	.....	.....	.....	.....	4	.....	.....
	1912	4	72.0	.....	.....	.....	.....	.....	4	.....	.....
3 plants.....	1912	5	69.6	.....	.....	.....	1	.....	4	.....	.....
	1913	6	72.0	.....	.....	.....	.....	.....	6	.....	.....
Shearmen: 11 plants.....	1910	70	67.5	.....	.....	.....	2	45	23	.....	.....
	1911	66	68.0	.....	.....	.....	4	28	34	.....	.....
	1912	68	68.2	.....	.....	.....	4	27	37	.....	.....
11 plants.....	1912	69	68.3	.....	.....	.....	5	26	38	.....	.....
	1913	69	68.8	.....	.....	1	1	26	41	.....	.....
Shearmen's helpers: 11 plants.....	1910	460	68.4	.....	.....	.....	7	261	192	.....	.....
	1911	429	68.4	.....	.....	.....	16	174	239	.....	.....
	1912	432	68.6	.....	.....	.....	11	170	251	.....	.....
11 plants.....	1912	392	68.3	.....	.....	.....	9	166	217	.....	.....
	1913	393	68.4	.....	.....	2	4	167	220	.....	.....
Laborers: 11 plants.....	1910	355	66.8	.....	.....	.....	89	206	35	2	23
	1911	274	66.2	.....	.....	.....	70	112	50	9	3
	1912	287	68.3	.....	.....	.....	73	129	48	20	1 17
11 plants.....	1912	339	68.9	.....	.....	.....	73	123	105	20	2 18
	1913	349	69.3	.....	.....	.....	78	121	113	11	2 23

PER CENT.

Charging-crane and charging-machine operators: 9 plants.....	1910	41	71.6	.....	.....	.....	.....	34.1	56.1	.....	9.8
	1911	39	69.4	.....	.....	2.6	5.1	33.3	56.4	.....	2.6
	1912	38	69.1	.....	.....	2.6	5.3	34.2	57.9	.....	.....
10 plants.....	1912	42	69.6	.....	.....	.....	4.8	33.3	33.3	28.6	.....
	1913	44	70.3	.....	.....	.....	.....	31.8	40.9	27.3	.....
Heaters: 11 plants.....	1910	56	71.0	.....	.....	.....	.....	39.3	53.6	.....	7.1
	1911	55	69.1	.....	.....	1.8	3.6	38.2	54.5	.....	1.8
	1912	53	69.4	.....	.....	1.9	3.8	35.8	52.8	5.7	.....
11 plants.....	1912	55	69.9	.....	.....	.....	3.6	36.4	32.7	27.3	.....
	1913	54	71.0	.....	.....	.....	.....	37.0	35.2	27.8	.....
Heaters' helpers: 10 plants.....	1910	111	69.5	.....	.....	.....	.....	66.7	27.9	.....	5.4
	1911	108	67.3	.....	.....	.....	3.7	65.7	29.6	.....	.9
	1912	101	67.5	.....	.....	.....	3.0	64.4	29.7	3.0	.....
10 plants.....	1912	113	68.7	.....	.....	.....	2.7	61.1	24.8	8.0	3.5
	1913	107	68.7	.....	.....	.....	.....	64.5	23.4	12.1	.....

¹ Including 15 employees whose full-time hours per week were 91.² Including 9 employees whose full-time hours per week were 91.³ Including 10 employees whose full-time hours per week were 91.

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK
IN THE UNITED STATES, BY YEARS, 1910 TO 1913—PLATE MILLS—
Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Roll engineers:											
11 plants.....	1910	36	71.5	.....	.....	.....	.....	27.8	61.1	11.1	.....
	1911	35	70.8	.....	.....	.....	5.7	34.3	37.1	17.1	5.7
	1912	35	71.5	.....	.....	.....	5.7	34.3	34.3	17.1	8.6
11 plants.....	1912	37	72.5	.....	.....	.....	5.4	32.4	27.0	21.6	13.5
	1913	36	72.8	.....	.....	.....	.....	33.3	30.6	22.2	13.9
Rollers, sheared-plate mills:											
9 plants.....	1910	28	68.4	.....	.....	.....	.....	71.4	28.6	.....	.....
	1911	28	68.1	.....	.....	3.6	.....	53.6	42.9	.....	.....
	1912	25	68.5	.....	.....	4.0	.....	48.0	48.0	.....	.....
9 plants.....	1912	27	68.7	.....	.....	.....	.....	48.1	51.9	.....	.....
	1913	26	68.5	.....	.....	.....	.....	50.0	50.0	.....	.....
Screw men, sheared-plate mills:											
9 plants.....	1910	28	68.6	.....	.....	.....	.....	64.3	35.7	.....	.....
	1911	28	68.6	.....	.....	3.6	.....	46.4	50.0	.....	.....
	1912	27	68.8	.....	.....	3.7	.....	44.4	51.9	.....	.....
9 plants.....	1912	29	69.0	.....	.....	3.4	.....	41.4	55.2	.....	.....
	1913	29	69.0	.....	.....	.....	.....	44.8	55.2	.....	.....
Manipulators, sheared-plate mills:											
9 plants.....	1910	26	68.4	.....	.....	.....	.....	69.2	30.8	.....	.....
	1911	28	68.1	.....	.....	.....	.....	57.1	42.9	.....	.....
	1912	28	68.1	.....	.....	.....	.....	57.1	42.9	.....	.....
9 plants.....	1912	30	68.3	.....	.....	.....	.....	53.3	46.7	.....	.....
	1913	31	68.4	.....	.....	.....	.....	51.6	48.4	.....	.....
Tablemen, sheared-plate mills:											
9 plants.....	1910	73	68.3	.....	.....	.....	.....	68.5	31.5	.....	.....
	1911	72	68.1	.....	.....	.....	.....	58.3	41.7	.....	.....
	1912	69	68.3	.....	.....	.....	.....	56.5	43.5	.....	.....
9 plants.....	1912	72	68.5	.....	.....	.....	.....	52.8	47.2	.....	.....
	1913	75	68.6	.....	.....	.....	.....	50.7	49.3	.....	.....
Roll hands, other, sheared-plate mills:											
6 plants.....	1910	14	68.0	.....	.....	.....	.....	71.4	28.6	.....	.....
	1911	14	68.9	.....	.....	.....	.....	42.9	57.1	.....	.....
	1912	14	68.9	.....	.....	.....	.....	42.9	57.1	.....	.....
6 plants.....	1912	16	69.3	.....	.....	.....	.....	37.5	62.5	.....	.....
	1913	16	69.3	.....	.....	.....	.....	37.5	62.5	.....	.....
Rollers, universal mills, 48-inch:											
4 plants.....	1910	8	69.5	.....	.....	.....	.....	50.0	50.0	.....	.....
	1911	7	68.4	.....	.....	.....	14.3	28.6	57.1	.....	.....
	1912	6	67.8	.....	.....	.....	16.7	33.3	50.0	.....	.....
	1913	6	69.8	.....	.....	.....	.....	33.3	66.7	.....	.....
Screw men, main rolls, universal mills, 48-inch:											
4 plants.....	1910	8	69.5	.....	.....	.....	.....	50.0	50.0	.....	.....
	1911	7	66.6	.....	.....	.....	28.6	28.6	42.9	.....	.....
	1912	7	66.6	.....	.....	.....	28.6	28.6	42.9	.....	.....
	1913	7	70.1	.....	.....	.....	.....	28.6	71.4	.....	.....
Screw men, side rolls, universal mills, 48-inch:											
4 plants.....	1910	10	69.2	.....	.....	.....	.....	60.0	40.0	.....	.....
	1911	9	66.3	.....	.....	.....	22.2	44.4	33.3	.....	.....
	1912	9	66.3	.....	.....	.....	22.2	44.4	33.3	.....	.....
	1913	8	68.6	.....	.....	.....	.....	50.0	50.0	.....	.....
Roll hands, other, universal mills, 48-inch:											
2 plants.....	1910	6	70.0	.....	.....	.....	.....	33.3	66.7	.....	.....
	1911	4	72.0	.....	.....	.....	.....	.....	100.0	.....	.....
	1912	4	72.0	.....	.....	.....	.....	.....	100.0	.....	.....
3 plants.....	1912	5	69.6	.....	.....	.....	20.0	.....	80.0	.....	.....
	1913	6	72.0	.....	.....	.....	.....	.....	100.0	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1913—PLATE MILLS—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84
Shearmen:										
11 plants.....	1910	70	67.5	.....	.....	.....	2.9	64.3	32.9	.....
	1911	66	68.0	.....	.....	.....	6.1	42.4	51.5	.....
	1912	68	68.2	.....	.....	.....	5.9	39.7	54.4	.....
11 plants.....	1912	69	68.3	.....	.....	.....	7.2	37.7	55.1	.....
	1913	69	68.8	.....	1.4	.....	1.4	37.7	59.4	.....
Shearmen's helpers:										
11 plants.....	1910	460	68.4	.....	.....	.....	1.5	56.7	41.7	.....
	1911	429	68.4	.....	.....	.....	3.7	40.6	55.7	.....
	1912	432	68.6	.....	.....	.....	2.5	39.4	58.1	.....
11 plants.....	1912	392	68.3	.....	.....	.....	2.3	42.3	55.4	.....
	1913	393	68.4	.....	.....	.5	1.0	42.5	56.0	.....
Laborers:										
11 plants.....	1910	355	66.8	.....	.....	.....	25.1	58.0	9.9	0.6
	1911	274	66.2	.....	.....	.....	25.5	51.8	18.2	3.3
	1912	287	68.3	.....	.....	.....	25.4	44.9	16.7	7.0
11 plants.....	1912	339	68.9	.....	.....	.....	21.5	36.3	31.0	5.9
	1913	349	69.3	.....	.....	.....	22.3	35.5	32.4	3.2

¹ Including 5.2 per cent whose full-time hours per week were 91.

² Including 2.7 per cent whose full-time hours per week were 91.

³ Including 2.9 per cent whose full-time hours per week were 91.

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—PLATE MILLS.

CHARGING-CRANE AND CHARGING-MACHINE OPERATORS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern	2	8	66.2					8			
Pittsburgh	4	24	71.5					4	8	12	
Great Lakes and Middle West	4	10	67.9				2	2	6		
Total	10	42	69.6				2	14	14	12	
1913.											
Eastern	2	8	66.2					8			
Pittsburgh	4	24	71.5					4	8	12	
Great Lakes and Middle West	4	12	70.5					2	10		
Total	10	44	70.3					14	18	12	

HEATERS.

1912.											
Eastern.....	2	18	67.0					14	4		
Pittsburgh.....	5	26	71.8					4	10	12	
Great Lakes and Middle West...	4	11	69.9				2	2	4	3	
Total.....	11	55	69.9				2	20	18	15	
1913.											
Eastern.....	2	18	67.0					14	4		
Pittsburgh.....	5	25	73.2					4	9	12	
Great Lakes and Middle West...	4	11	72.6					2	6	3	
Total.....	11	54	71.0					20	19	15	

HEATERS' HELPERS.

1912.											
Eastern.....	2	50	65.6					50			
Pittsburgh.....	5	50	72.6					12	28	6	4
Great Lakes and Middle West...	3	13	65.9				3	7		3	
Total.....	10	113	68.7				3	69	28	9	4
1913.											
Eastern.....	2	50	65.7					50			
Pittsburgh.....	5	43	71.9					12	21	10	
Great Lakes and Middle West...	3	14	69.3					7	4	3	
Total.....	10	107	68.7					69	25	13	

ROLL ENGINEERS.

1912.											
Eastern.....	2	10	65.6					10			
Pittsburgh.....	5	18	77.2					2	4	8	4
Great Lakes and Middle West...	4	9	70.7				2		6		1
Total.....	11	37	72.5				2	12	10	8	5
1913.											
Eastern.....	2	10	65.6					10			
Pittsburgh.....	5	17	76.8					2	3	8	1
Great Lakes and Middle West...	4	9	73.3						8		4
Total.....	11	36	72.8					12	11	8	5

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—PLATE MILLS—Continued.

ROLLERS, SHEARED-PLATE MILLS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							84
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	
1912.											
Eastern.....	2	9	65.4					9			
Pittsburgh.....	5	14	71.1					2	12		
Great Lakes and Middle West.....	2	4	67.6					2	2		
Total.....	9	27	68.7					13	14		
1913.											
Eastern.....	2	9	65.4					9			
Pittsburgh.....	5	13	71.0					2	11		
Great Lakes and Middle West.....	2	4	67.6					2	2		
Total.....	9	26	68.5					13	13		

SCREW MEN, SHEARED-PLATE MILLS.

1912.									
Eastern.....	2	9	65.6					9	
Pittsburgh.....	5	16	71.2					2	14
Great Lakes and Middle West....	2	4	67.6			1		1	
Total.....	9	29	69.0			1		12	16
1913.									
Eastern.....	2	9	65.6					9	
Pittsburgh.....	5	14	71.1					2	12
Great Lakes and Middle West....	2	6	69.1					2	4
Total.....	9	29	69.0					13	16

MANIPULATORS, SHEARED-PLATE MILLS.

1912.									
Eastern.....	2	8	65.6					8	
Pittsburgh.....	5	16	70.4					4	12
Great Lakes and Middle West....	2	6	66.2					4	2
Total.....	9	30	68.3					16	14
1913.									
Eastern.....	2	8	65.6					8	
Pittsburgh.....	5	15	70.3					4	11
Great Lakes and Middle West....	2	8	67.6					4	4
Total.....	9	31	68.4					16	15

TABLE MEN, SHEARED-PLATE MILLS.

1912.									
Eastern.....	2	26	65.7					26	
Pittsburgh.....	5	34	70.9					6	28
Great Lakes and Middle West....	2	12	67.6					6	6
Total.....	9	72	68.5					38	34
1913.									
Eastern.....	2	26	65.7					26	
Pittsburgh.....	5	30	70.7					6	24
Great Lakes and Middle West....	2	19	69.2					6	13
Total.....	9	75	68.6					38	37

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—PLATE MILLS—Continued.

ROLL HANDS, OTHER, SHEARED-PLATE MILLS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern	1	2	65.3					2			
Pittsburgh	4	12	70.9					2	10		
Great Lakes and Middle West	1	2	63.3					2			
Total	6	16	69.3					6	10		
1913.											
Eastern	1	2	65.3					2			
Pittsburgh	4	12	70.9					2	10		
Great Lakes and Middle West	1	2	63.3					2			
Total	6	16	69.3					6	10		

ROLLERS, UNIVERSAL MILLS, 48-INCH.

1912.										
Eastern.....	1	2	65.3					2		
Pittsburgh.....	1	2	72.0						2	
Great Lakes and Middle West.....	2	2	66.0				1		1	
Total.....	4	6	67.8				1	2	3	
1913.										
Eastern.....	1	2	65.3					2		
Pittsburgh.....	1	2	72.0						2	
Great Lakes and Middle West.....	2	2	72.0						2	
Total.....	4	6	69.8					2	4	

SCREW MEN, MAIN ROLLS, UNIVERSAL MILLS, 48-INCH.

1912.										
Eastern.....	1	2	65.3					2		
Pittsburgh.....	1	2	72.0						2	
Great Lakes and Middle West.....	2	3	64.0				2		1	
Total.....	4	7	66.6				2	2	3	
1913.										
Eastern.....	1	2	65.3					2		
Pittsburgh.....	1	2	72.0						2	
Great Lakes and Middle West.....	2	3	72.0						3	
Total.....	4	7	70.1					2	5	

SCREW MEN, SIDE ROLLS, UNIVERSAL MILLS, 48-INCH.

1912.										
Eastern.....	1	4	65.3					4		
Pittsburgh.....	1	2	72.0						2	
Great Lakes and Middle West.....	2	3	64.0				2		1	
Total.....	4	9	66.3				2	4	3	
1913.										
Eastern.....	1	4	65.3					4		
Pittsburgh.....	1	2	72.0						2	
Great Lakes and Middle West.....	2	2	72.0						2	
Total.....	4	8	68.6					4	4	

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—PLATE MILLS—Concluded.

ROLL HANDS, OTHER, UNIVERSAL MILLS, 48-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Pittsburgh.....	1	2	72.0						2		
Great Lakes and Middle West.....	2	3	68.0				1		2		
Total.....	3	5	69.6				1		4		
1913.											
Pittsburgh.....	1	2	72.0						2		
Great Lakes and Middle West.....	2	4	72.0						4		
Total.....	3	6	72.0						6		

SHEARMEN.

1912.											
Eastern.....	2	16	65.9				1	14	1		
Pittsburgh.....	5	36	70.3				3	4	29		
Great Lakes and Middle West.....	4	17	66.2				1	8	8		
Total.....	11	69	68.3				5	26	38		
1913.											
Eastern.....	2	16	65.9				1	14	1		
Pittsburgh.....	5	36	70.9			1		4	31		
Great Lakes and Middle West.....	4	17	66.9					8	9		
Total.....	11	69	68.8			1	1	26	41		

SHEARMEN'S HELPERS.

1912.											
Eastern.....	2	81	65.4				4	76			
Pittsburgh.....	5	223	70.8				4	32	187		
Great Lakes and Middle West.....	4	88	64.8				1	58	29		
Total.....	11	392	68.3				9	166	217		
1913.											
Eastern.....	2	81	65.3				4	77			
Pittsburgh.....	5	220	70.9			2		32	186		
Great Lakes and Middle West.....	4	92	65.2					58	34		
Total.....	11	393	68.4			2	4	167	220		

LABORERS.

1912.											
Eastern.....	2	88	62.6				70	9	4		5
Pittsburgh.....	5	219	70.9				1	112	78	18	110
Great Lakes and Middle West.....	4	32	72.4				2	2	23	2	3
Total.....	11	339	68.9				73	123	105	20	118
1913.											
Eastern.....	2	94	62.8				75	8	4		7
Pittsburgh.....	5	211	71.5				2	102	85	9	113
Great Lakes and Middle West.....	4	44	72.3				1	14	24	2	3
Total.....	11	349	69.3				78	124	113	11	123

¹ Including 9 employees whose full-time hours per week were 91.² Including 10 employees whose full-time hours per week were 91.

STANDARD RAIL MILLS.

SUMMARY.

Summary figures relating to the standard-rail-mill department of the iron and steel industry are given, with figures for other departments, in the introductory summary on pages 5 to 15. An explanation of the scope of the investigation and of the methods employed is given on pages 15 to 23.

Briefly stated, in 1913 the average rate of wages or earnings per hour of employees in the principal productive occupations in standard rail mills was approximately 12 per cent higher than in any of the three years preceding. The average full-time hours per week in 1913 were 4.1 per cent lower than in 1910 and slightly higher than in 1911 and 1912. The average full-time weekly earnings in 1913 were 9.5 per cent higher than in 1910, 12.9 per cent higher than in 1911, and 11.9 per cent higher than in 1912.

The most significant facts concerning the several standard-rail-mill occupations which are covered in this section of the report are summarized in the table following. Data are presented for the years 1910, 1911, 1912, and 1913, figures for identical plants being grouped together. The data for 1913 represents 1,427 standard-rail-mill employees in the 21 occupations covered and were obtained from 7 plants.

Referring to the first occupation, cold-saw men's helpers, direct comparison can be made for 3 identical plants in 1910 and 1911, for 4 identical plants in 1911 and 1912, and for 7 identical plants in 1912 and 1913. The first line of the table is read as follows: In 1910 the 3 standard rail mills from which reports were obtained employed 30 cold-saw men's helpers, whose average full-time hours of work were 76 per week. For 66.7 per cent of these 30 cold-saw men's helpers the full-time hours per week were 72 and for the remaining one-third the working hours were 84 per week. The average rate of wages or earnings per hour of cold-saw men's helpers in the year considered (1910) was \$0.171. All of these 30 employees received 16 and under 18 cents per hour. The average full-time weekly earnings were \$12.98. The other lines of the table may be read in the same manner.

Referring to the last column of the table, it is seen that in 3 plants the average full-time weekly earnings of cold-saw men's helpers were \$12.98 in 1910, and in 1911 in the same 3 plants the average dropped to \$12.40; in 4 plants in 1911 the average was \$12.38, while in 1912

there was an increase to \$12.45; and in 7 plants the average full-time weekly earnings were \$13.56 in 1912 and \$15.10 in 1913. Comparing the average full-time weekly earnings for 1913 in the several occupations, it is seen that the lowest average was that of laborers, which was \$13.61. Several other occupations received but little more. The highest earnings in any occupation of this department are found in the occupation of rollers, the average full-time weekly earnings in this occupation in 1913 being \$50.18.

In this table occupations are grouped according to the wages paid, beginning with the lowest-paid group, and the occupations in each group are presented in alphabetical order.

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—STANDARD RAIL MILLS.

[The figures for each group of years are for identical plants.]

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—				Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				Under 60	60 and under 72	72	Over 72 and under 84		Under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.	
Cold-saw men's helpers:														
3 plants.....	1910	30	76.0			66.7	33.3	\$0.171		100.0				\$12.98
	1911	31	72.0			100.0		.172		100.0				12.40
4 plants.....	1911	36	72.0			100.0		.172		100.0				12.38
	1912	29	72.0			100.0		.173		100.0				12.45
7 plants.....	1912	54	73.3	3.7	81.5		14.8	.183	85.2		7.4	7.4		13.56
	1913	48	73.5	4.2	79.2		16.7	.204	25.0	20.8	37.5	16.7		15.10
Hotbed lever men:														
6 plants.....	1910	34	74.1			82.4		.209	11.8	41.2	29.4	17.6		15.61
	1911	27	72.1			70.4	29.6	.197	22.2	33.3	44.4			14.24
7 plants.....	1911	31	72.1			74.2	25.8	.195	25.8	35.5	38.7			14.06
	1912	35	72.1			77.1	22.9	.201	25.7	34.3	34.3	5.7		14.61
7 plants.....	1912	35	72.1			77.1	22.9	.195	31.4	34.3	34.3			14.07
	1913	36	72.1			77.8	22.2	.213		27.8	72.2			15.36
Hotbed men:														
6 plants.....	1910	44	73.6			86.4	13.6	.176	13.6	36.4	18.2	31.8		12.95
	1911	43	72.0			100.0		.175	23.3	41.9	4.7	30.2		12.60
7 plants.....	1911	47	72.0			100.0		.176	21.3	42.6	8.5	27.7		12.65
	1912	48	72.2			95.8	4.2	.180	16.7	52.1	6.3	16.7	8.3	12.98
7 plants.....	1912	46	72.0			100.0		.181	15.2	52.2	6.5	17.4	8.7	13.01
	1913	48	72.0			100.0		.209	12.5		37.5	37.5	12.5	15.01
Hot-saw men's helpers:														
6 plants.....	1910	64	72.4			96.9	3.1	.165	28.1	62.5	9.4			11.92
	1911	59	72.1			86.4	13.6	.168	15.3	74.6	10.2			12.14
7 plants.....	1911	66	72.1			87.9	12.1	.168	19.7	71.2	9.1			12.10
	1912	73	72.1			89.0	11.0	.169	4.1	82.2	13.7			12.20
7 plants.....	1912	55	72.1			85.5	14.5	.170	5.5	76.4	18.2			12.24
	1913	59	72.1			86.4	13.6	.201			54.2	45.8		14.52
Laborers:														
6 plants.....	1910	501	76.0	13.4	41.7		44.9	.163	23.4	76.6				12.31
	1911	370	71.9	20.5	58.9	11.9	8.6	.169	10.0	90.0				12.12
7 plants.....	1911	382	71.9	19.9	60.2	11.5	8.4	.169	9.7	90.3				12.12
	1912	417	71.9	20.1	57.1	16.3	6.5	.168	5.0	95.0				12.07
7 plants.....	1912	327	70.2	20.5	78.6		.9	.169	5.2	94.8				11.88
	1913	377	70.5	17.2	82.0		.8	.193	13.8	49.1	37.1			13.61

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 to 1913—STANDARD RAIL MILLS—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—				Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				Under 60	60 and under 72	72	Over 72 and under 84		14 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 cts. and over.	
Charging-machine operators:														
3 plants.....	1910	22	72.0			100.0		\$0.234	36.4	27.3		36.4		\$16.87
	1911	22	72.0			100.0		.232	36.4	27.3	36.4			16.72
	1912	22	72.0			100.0		.244	36.4		45.5	18.2		17.55
2 plants.....	1912	14	72.0			100.0		.284			71.4	28.6		20.43
	1913	14	72.0			100.0		.321				100.0		23.12
Chippers:														
5 plants.....	1910	114	72.1	24.5	53.5		21.9	.231	28.9	21.1	50.0			16.78
	1911	82	70.0	21.9	78.0			.240	40.2	12.2	32.9	14.6		16.88
6 plants.....	1911	91	70.2	19.8	80.2			.233	46.2	11.0	29.7	13.2		16.44
	1912	99	70.3	18.2	81.8			.221	39.4	48.5		12.1		15.60
7 plants.....	1912	113	70.2	19.5	80.5			.224	39.9	42.5	7.1	10.6		15.79
	1913	103	70.0	17.5	82.5			.267	2.9	29.1	48.5	19.4		18.76
Cold-saw men:														
5 plants.....	1910	18	74.7	33.3	11.1		55.6	.191	8.9	11.1				14.21
	1911	18	69.1	44.4	33.3	22.2		.194	54.5		5.6			13.43
6 plants.....	1911	19	69.3	42.1	36.8	21.1		.194	0.8		5.3			13.43
	1912	19	69.3	42.1	36.8	21.1		.196	54.7			5.3		13.60
6 plants.....	1912	22	71.8	36.4	27.3	18.2	18.2	.213	77.3		9.1	13.6		15.50
	1913	23	72.3	34.8	26.1	17.4	21.7	.233			78.3	17.4	4.3	17.04
Drillers and punchers:														
5 plants.....	1910	152	76.7	13.2	34.2		52.6	.220	18.4	47.4	34.2			16.78
	1911	123	70.5	17.1	82.9			.221	48.8	26.8	24.4			15.59
6 plants.....	1911	133	70.6	15.8	84.2			.218	52.6	24.8	22.6			15.35
	1912	145	70.5	16.6	83.4			.206	61.4	37.2		1.4		14.51
7 plants.....	1912	203	70.5	16.7	83.3			.214	56.7	34.5	7.9	1.0		15.05
	1913	179	70.5	12.8	87.2			.249	1.1	55.9	36.3	6.7		17.45
Hot-saw men:														
6 plants.....	1910	19	72.0		100.0			.289		36.8	10.5	52.6		20.79
	1911	14	72.0		100.0			.258		50.0	35.7	14.3		18.56
7 plants.....	1911	16	72.0		100.0			.251		56.3	31.3	12.5		18.10
	1912	18	72.0		100.0			.257	16.7	27.8	44.4	11.1		18.52
7 plants.....	1912	20	72.0		100.0			.260	15.0	25.0	40.0	20.0		18.69
	1913	20	72.0		100.0			.283		30.0	25.0	45.0		20.36
Inspectors:														
5 plants.....	1910	68	75.5	13.2	44.1		42.6	.225	44.1	44.1	2.9	7.4	1.5	16.77
	1911	48	70.4	18.8	81.3			.233	29.1	56.3	4.2	8.3	2.1	16.29
7 plants.....	1911	68	70.9	13.2	86.8			.230	20.6	60.3	11.8	5.9	1.5	16.25
	1912	76	71.0	11.8	88.2			.228	27.6	56.6	9.2	2.6	3.9	16.12
7 plants.....	1912	74	70.9	12.2	87.8			.229	28.4	55.4	9.5	2.7	4.1	16.17
	1913	73	70.5	16.4	83.6			.258		47.9	39.7	8.2	4.1	18.11
Reheaters' helpers:														
3 plants.....	1910	24	71.3	50.0	50.0			.280	4.2	45.8		50.0		19.95
	1911	24	72.0		100.0			.264	4.2	25.0	70.8			18.98
	1912	24	72.0		100.0			.304	4.2	4.2	45.8	45.8		21.87
	1913	23	72.0		100.0			.345		4.5		95.7		24.87
Roll engineers:														
6 plants.....	1910	42	77.4		47.6	14.3	38.1	.310		38.1	23.8	14.3	23.8	24.30
	1911	37	76.2		48.6	32.4	18.9	.282		43.2	27.0	24.3	5.4	21.67
7 plants.....	1911	43	75.8		41.9	41.9	16.3	.277		46.5	27.9	20.9	4.7	21.14
	1912	48	74.1		58.3	37.5	4.2	.304		27.1	39.6	25.0	8.3	22.44
7 plants.....	1912	32	75.2		43.8	43.8	12.5	.307		37.5	25.0	25.0	12.5	22.95
	1913	32	74.9		62.5	25.0	12.5	.323			50.0	37.5	12.5	24.16

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—STANDARD RAIL MILLS—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—				Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				Under 60	60 and under 72	72	Over 72 and under 84		14 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 cts. and over.	
Straighteners' helpers: 5 plants.	1910	139	72.1	16.5	66.2	17.3	\$0.205	52.5	30.2	0.7	16.5		\$14.55	
	1911	116	69.8	18.1	81.9		.205	69.8	12.1		18.1		14.04	
6 plants.	1911	120	69.9	17.5	82.5		.205	67.5	15.0		17.5		14.06	
	1912	134	70.0	16.4	83.6		.212	67.2	13.4	3.0	11.9	4.5	14.51	
7 plants.	1912	146	70.2	15.1	84.9		.211	61.6	20.5	2.7	11.0	4.1	14.54	
	1913	131	70.0	16.8	83.2		.253	26.0	54.2	3.1		16.8	17.28	
Table men: 4 plants.	1910	26	72.0		100.0		.279	23.1		38.5	38.5		20.06	
	1911	26	72.0		100.0		.264	23.1	7.7	46.2	23.1		19.00	
5 plants.	1911	27	72.4		96.3	3.7	.262	22.2	11.1	44.4	22.2		18.97	
	1912	25	72.5		96.0	4.0	.287	16.0	12.0	20.0	52.0		20.77	
5 plants.	1912	30	72.0		100.0		.324	13.3	6.7	16.7	43.3	20.0	23.32	
	1913	30	72.0		100.0		.354		16.7		70.0	13.3	25.47	
Guide setters: 5 plants.	1910	20	66.8	15.0	15.0	70.0	.440	10.0	25.0	20.0	45.0		29.26	
	1911	17	65.8	17.6	17.6	64.7	.373	17.7	41.2	35.3	5.9		24.31	
7 plants.	1911	27	66.8	11.1	25.9	40.7	.336	37.0	37.0	22.2	3.7		22.20	
	1912	30	67.3	10.0	23.3	46.7	.346	40.0	30.0	26.7	3.3		23.14	
4 plants.	1912	17	68.3	17.6		47.1	.340	41.2	41.2	11.8	5.9		22.61	
	1913	17	69.2	17.6		47.1	.384	11.8	47.1	41.2			26.20	
Reheaters: 4 plants.	1910	23	72.2		91.3	8.7	.429	4.3		95.7			31.00	
	1911	23	72.0		100.0		.421	4.3	43.5	52.2			30.28	
3 plants.	1912	23	72.0		100.0		.410	47.8	4.3	4.3	43.5		29.50	
	1913	13	72.0		100.0		.531	7.7	7.7	7.7	76.9		38.23	
Rollers: 5 plants.	1910	12	72.3		83.3	16.7	.624				33.3	66.7	45.09	
	1911	12	72.3		83.3	16.7	.614			8.3	25.0	66.6	44.40	
6 plants.	1911	14	72.2		85.7	14.3	.591			21.4	21.4	57.1	42.67	
	1912	14	72.2		85.7	14.3	.646			7.1	7.1	85.7	46.65	
Rollers' helpers: 1 plant.	1913	14	72.6		78.6	21.4	.690					100.0	50.18	
	1910	3	72.0		100.0		.561				100.0		40.39	
2 plants.	1911	1	72.0		100.0		.458						32.98	
	1911	3	72.7		33.3	66.7	.284	66.7		33.3			20.56	
Straighteners, gag press: 5 plants.	1912	6	72.6		33.3	66.7	.304	66.7		33.3			21.98	
	1913	6	73.3		50.0	50.0	.323	66.7	33.3				23.61	
6 plants.	1910	106	59.0	62.3	5.7	11.3	.564			49.1	11.3	39.7	32.41	
	1911	90	56.3	62.2	6.7	31.1	.534		15.6	30.0		54.4	30.12	
7 plants.	1911	94	56.9	59.6	6.4	34.0	.526		19.1	28.7		52.1	29.91	
	1912	98	57.6	57.1	6.1	36.7	.530		24.5	18.4		57.1	30.79	
Table lever men: 6 plants.	1912	110	59.1	50.9	5.5	43.6	.514		32.7	16.4		51.0	30.45	
	1913	101	59.2	50.5	5.9	43.6	.576			35.6	17.8	46.5	34.06	
6 plants.	1910	74	65.5	32.4		59.5	.454	5.4	43.2	27.0		24.3	28.25	
	1911	69	64.0	34.8		65.2	.422	21.7	30.4	18.8	23.2	5.8	26.08	
6 plants.	1912	74	64.5	32.4		67.6	.427	25.7	17.6	16.2	37.8	2.7	26.82	
	1912	80	67.1	22.5		75.0	.392	28.8	16.3	15.0	27.5	2.5	25.62	
6 plants.	1913	80	67.1	22.5		75.0	.410	28.8	26.3	12.5	17.5	15.0	27.51	

Owing to changes in the number of plants reported from year to year, and the consequent differences in the averages for the overlapping year in two groups of plants, it is difficult to make a comparison of the actual data for the various years which will give an accurate measure of the changes throughout the period.

To aid in making such a comparison, relative or index numbers have been computed from the averages of the preceding table for full-time hours per week, rates of wages per hour, and full-time weekly earnings, for each occupation from 1910 to 1913, inclusive. Such figures appear in the table following. These relative or index numbers are simply percentages for which the data for 1913 are taken as the base, or 100 per cent. The relative for each year is the per cent which the average for that year is of the average for 1913. For example, the relative full-time weekly earnings of charging-machine operators in 1910 were 84.8 as compared with 100 in 1913; that is, the full-time weekly earnings of charging-machine operators in 1910 were 84.8 per cent of the full-time weekly earnings in this occupation in 1913. The method of computing relative numbers is explained on pages 21 to 23.

The table also shows for each occupation the per cent of increase or decrease in full-time hours per week, rates of wages per hour, and full-time weekly earnings in 1913 as compared with each specified year preceding. Thus the full-time weekly earnings of charging-machine operators in 1913 were 17.9 per cent higher than in 1910, 19 per cent higher than in 1911, and 13.1 per cent higher than in 1912.

In other columns of this table is shown the per cent of change in each year as compared with the year immediately preceding. Thus the full-time weekly earnings of charging-machine operators in 1911 were 0.9 per cent lower than in 1910, 5.2 per cent higher in 1912 than in 1911, and 13.1 per cent higher in 1913 than in 1912. The other occupations and items of the table may be studied in like manner. The percentages of increase and decrease are computed from the relative numbers.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—STANDARD RAIL MILLS.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Charging-machine operators:									
1910.....	100.0	(1)	.....	84.8	+17.9	.....	84.8	+17.9	.....
1911.....	100.0	(1)	(1)	84.1	+18.9	— 0.8	84.0	+19.0	— 0.9
1912.....	100.0	(1)	(1)	88.5	+13.0	+ 5.2	88.4	+13.1	+ 5.2
1913.....	100.0	(1)	(1)	100.0	.....	+13.0	100.0	.....	+13.1
Reheaters:									
1910.....	100.3	— 0.3	.....	94.8	+ 5.5	.....	95.1	+ 5.2	.....
1911.....	100.0	(1)	— 0.3	93.0	+ 7.5	— 1.9	92.9	+ 7.6	— 2.3
1912.....	100.0	(1)	(1)	90.6	+10.4	— 2.6	90.5	+10.5	— 2.6
1913.....	100.0	(1)	(1)	100.0	.....	+10.4	100.0	.....	+10.5
Reheaters' helpers:									
1910.....	99.0	+ 1.0	.....	81.2	+23.2	.....	80.2	+24.7	.....
1911.....	100.0	(1)	+ 1.0	78.5	+30.7	— 5.8	76.3	+31.1	— 4.9
1912.....	100.0	(1)	(1)	88.1	+13.5	+15.2	87.9	+13.8	+15.2
1913.....	100.0	(1)	(1)	100.0	.....	+13.5	100.0	.....	+13.8
Roll engineers:									
1910.....	104.3	— 4.1	.....	95.2	+ 5.0	.....	100.3	— 3	.....
1911.....	102.7	— 2.6	— 1.5	88.6	+15.5	— 9.0	89.5	+11.7	—10.8
1912.....	100.4	— 2.4	— 2.2	95.0	+ 5.3	+ 9.7	95.0	+ 5.3	+ 6.1
1913.....	100.0	— .4	— .4	100.0	.....	+ 5.3	100.0	.....	+ 5.3
Rollers:									
1910.....	99.4	+ .6	.....	87.0	+14.9	.....	86.4	+15.7	.....
1911.....	99.4	+ .6	(1)	85.7	+16.7	— 1.5	85.0	+17.6	— 1.6
1912.....	99.4	+ .6	(1)	93.6	+ 6.8	+ 9.2	93.0	+ 7.5	+ 9.4
1913.....	100.0	.....	+ .6	100.0	.....	+ 6.8	100.0	.....	+ 7.5
Rollers' helpers:									
1910.....	99.2	+ .8	.....	107.7	— 7.1	.....	106.6	— 6.2	.....
1911.....	99.2	+ .8	(1)	87.9	+13.8	—18.4	87.1	+14.8	—18.3
1912.....	99.0	+ 1.0	— .2	94.1	+ 6.3	+ 7.1	93.1	+ 7.4	+ 6.9
1913.....	100.0	.....	+ 1.0	100.0	.....	+ 6.3	100.0	.....	+ 7.4
Table lever men:									
1910.....	101.6	— 1.6	.....	100.2	— .2	.....	98.1	+ 1.9	.....
1911.....	99.2	+ .8	— 2.4	93.1	+ 7.4	— 7.1	90.6	+10.4	— 7.6
1912.....	100.0	(1)	+ .8	94.2	+ 6.2	+ 1.2	93.1	+ 7.4	+ 2.8
1913.....	100.0	(1)	(1)	100.0	.....	+ 6.2	100.0	.....	+ 7.4
Table men:									
1910.....	99.9	+ .1	.....	88.3	+13.3	.....	88.3	+13.3	.....
1911.....	99.9	+ .1	(1)	83.6	+19.6	— 5.3	83.6	+19.6	— 5.3
1912.....	100.0	(1)	+ .1	91.5	+ 9.3	+ 9.4	91.6	+ 9.2	+ 9.6
1913.....	100.0	.....	(1)	100.0	.....	+ 9.3	100.0	.....	+ 9.2
Guide setters:									
1910.....	99.5	+ .5	.....	101.4	— 1.4	.....	99.6	+ .4	.....
1911.....	98.0	+ 2.0	— 1.5	86.0	+16.3	—15.2	82.8	+20.8	—16.9
1912.....	98.7	+ 1.3	+ .7	88.5	+13.0	+ 2.9	86.3	+15.9	+ 4.2
1913.....	100.0	.....	+ 1.3	100.0	.....	+13.0	100.0	.....	+15.9
Hot-saw men:									
1910.....	100.0	(1)	.....	100.5	— .5	.....	100.5	— .5	.....
1911.....	100.0	(1)	(1)	89.7	+11.5	—10.7	89.7	+11.5	—10.7
1912.....	100.0	(1)	(1)	91.9	+ 8.8	+ 2.5	91.8	+ 8.9	+ 2.3
1913.....	100.0	(1)	(1)	100.0	.....	+ 8.8	100.0	.....	+ 8.9
Hot-saw men's helpers:									
1910.....	100.4	— .4	.....	82.6	+21.1	.....	82.1	+21.8	.....
1911.....	100.0	(1)	— .4	84.1	+18.9	+ 1.8	83.6	+19.6	+ 1.8
1912.....	100.0	(1)	(1)	84.6	+18.2	+ .6	84.3	+18.6	+ .8
1913.....	100.0	(1)	(1)	100.0	.....	+18.2	100.0	.....	+18.6

1 No change.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—STANDARD RAIL MILLS—Concluded.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (−) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (−) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (−) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Hotbed lever men:									
1910.....	102.8	−2.7	.....	94.2	+ 6.2	.....	97.7	+ 2.4	.....
1911.....	100.0	(¹)	−2.7	88.8	+12.6	− 5.7	88.8	+12.6	− 9.1
1912.....	100.0	(¹)	(¹)	91.5	+ 9.3	+ 3.0	91.6	+ 9.2	+ 3.2
1913.....	100.0	.....	(¹)	100.0	.....	+ 9.3	100.0	.....	+ 9.2
Hotbed men:									
1910.....	101.9	−1.9	.....	85.2	+17.4	.....	86.8	+15.2	.....
1911.....	99.7	+ .3	−2.2	84.7	+18.1	− .6	84.5	+18.3	− 2.6
1912.....	100.0	(¹)	+ .3	86.6	+15.5	+ 2.2	86.7	+15.3	+ 2.6
1913.....	100.0	.....	(¹)	100.0	.....	+15.5	100.0	.....	+15.3
Straighteners, gag press:									
1910.....	103.3	−3.2	.....	93.5	+ 7.0	.....	93.4	+ 7.1	.....
1911.....	98.6	+1.4	−4.5	88.6	+12.9	− 5.2	86.8	+15.2	− 7.1
1912.....	99.8	+ .2	+1.2	89.2	+12.1	+ .7	89.4	+11.9	+ 3.0
1913.....	100.0	.....	+ .2	100.0	.....	+12.1	100.0	.....	+11.9
Straighteners' helpers:									
1910.....	103.4	−3.3	.....	80.6	+24.1	.....	84.4	+18.5	.....
1911.....	100.1	− 1	−3.2	80.6	+24.1	(¹)	81.5	+22.7	− 3.4
1912.....	100.3	− 3	+ .2	83.4	+19.9	+ 3.5	84.1	+18.9	+ 3.2
1913.....	100.0	.....	− 3	100.0	.....	+19.9	100.0	.....	+18.9
Chippers:									
1910.....	103.1	−3.0	.....	85.1	+17.5	.....	88.2	+13.4	.....
1911.....	100.1	− .1	−2.9	88.5	+13.0	+ 4.0	88.7	+12.7	+ .6
1912.....	100.3	− .3	+ .2	83.9	+19.2	− 5.2	84.2	+18.8	− 5.1
1913.....	100.0	.....	− .3	100.0	.....	+19.2	100.0	.....	+18.8
Drillers and punchers:									
1910.....	108.9	−8.2	.....	90.5	+10.5	.....	98.2	+ 1.8	.....
1911.....	100.1	− .1	−8.1	90.9	+10.0	+ .4	91.2	+ 9.6	− 7.1
1912.....	100.0	(¹)	− .1	85.9	+16.4	− 5.5	86.2	+16.0	− 5.5
1913.....	100.0	.....	(¹)	100.0	.....	+16.4	100.0	.....	+16.0
Cold-saw men:									
1910.....	107.4	−6.9	.....	89.1	+12.2	.....	95.0	+ 5.3	.....
1911.....	99.3	+ .7	−7.5	90.5	+10.5	+ 1.6	89.8	+11.4	− 5.5
1912.....	99.3	+ .7	(¹)	91.4	+ 9.4	+ 1.0	91.0	+ 9.9	+ 1.3
1913.....	100.0	.....	+ .7	100.0	.....	+ 9.4	100.0	.....	+ 9.9
Cold-saw men's helpers:									
1910.....	105.3	−5.0	.....	88.7	+12.7	.....	93.5	+ 7.0	.....
1911.....	99.7	+ .3	−5.3	89.2	+12.1	+ .6	89.3	+12.0	− 4.5
1912.....	99.7	+ .3	(¹)	89.7	+11.5	+ .6	89.8	+11.4	+ .6
1913.....	100.0	.....	+ .3	100.0	.....	+11.5	100.0	.....	+11.4
Inspectors:									
1910.....	107.7	−7.1	.....	86.5	+15.6	.....	92.7	+ 7.9	.....
1911.....	100.4	− .4	−6.8	89.5	+11.7	+ 3.5	90.0	+11.1	− 2.9
1912.....	100.6	− .6	+ .2	88.8	+12.6	− .8	89.3	+12.0	− .8
1913.....	100.0	.....	− .6	100.0	.....	+12.6	100.0	.....	+12.0
Laborers:									
1910.....	105.3	−5.0	.....	85.0	+17.6	.....	89.0	+12.4	.....
1911.....	99.6	+ .4	−5.4	88.1	+13.5	+ 3.6	87.6	+14.2	− 1.6
1912.....	99.6	+ .4	(¹)	87.6	+14.2	− .6	87.3	+14.5	− .3
1913.....	100.0	.....	+ .4	100.0	.....	+14.2	100.0	.....	+14.5

¹ No change.

A similar table of relative numbers and percentages is next shown for the standard-rail-mill department as a whole, as determined by a combination of the data for the several principal productive occupa-

tions which are covered in this section of this report. The method of computing the figures is explained on page 23.

From the table following, under the heading "weekly earnings," it is seen that the relative full-time weekly earnings of the department as a whole in 1910 were 91.3, as compared with 100 in 1913. In other words, the full-time weekly earnings in 1910 were 91.3 per cent of such earnings in 1913. The relative decreased to 88.6 in 1911, advanced in 1912 to 89.4, and in 1913, the base year, the relative was 100.

The next column shows that the full-time weekly earnings in 1913 were 9.5 per cent higher than in 1910, 12.9 per cent higher than in 1911, and 11.9 per cent higher than in 1912. The third column, under "weekly earnings," shows the per cent of increase or decrease in full-time weekly earnings each year as compared with the year immediately preceding. Thus, the full-time weekly earnings in 1911 were 3 per cent lower than in 1910, 0.9 per cent higher in 1912 than in 1911, and 11.9 per cent higher in 1913 than in 1912.

The relative numbers and percentages for full-time hours per week and rates of wages per hour can be read in like manner.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, ALL OCCUPATIONS—STANDARD RAIL MILLS.

Year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
1910.....	104.3	-4.1	.....	88.9	+12.5	.....	91.3	+9.5	.....
1911.....	89.7	+ .3	-4.4	89.2	+12.1	+ 0.3	88.6	+12.9	- 3.0
1912.....	89.9	+ .1	+ .2	89.6	+11.6	+ .4	89.4	+11.9	+ .9
1913.....	100.0	.....	+ .1	100.0	.....	+11.6	100.0	.....	+11.9

In considering weekly earnings it should be remembered that a reduction of hours tends to reduce earnings, just as an increase in wages per hour, of course, tends to increase them. Between 1910 and 1913 it will be observed that hours per week were reduced 4.1 per cent and wages per hour were increased 12.5 per cent, each tending to offset the other in weekly earnings.

Still another influence on average weekly earnings for the department must be considered; that is, the change in the relative number of

employees in the several occupations from year to year. It is obvious that an increase in the relative number of employees in the lower-paid occupations or a decrease in the relative number of those in the higher-paid ones would tend to lower the average rate and earnings for all occupations, just as an increase in the relative number of employees in the higher-paid occupations or a decrease in the relative number in the lower-paid ones would tend to increase the average.

FULL-TIME WORKING DAYS PER WEEK.

The number and per cent of employees in the principal productive occupations in standard rail mills, whose customary working time per week was 6 days or turns, or 7 days, or variations thereof, are shown in the following table. The heading "6 days and 7 days alternately" indicates that the plants were not in operation half a day in each week; the employees reported working 6 turns one week and 7 turns the next week. The figures are presented for each of the two districts for which standard-rail-mill data were obtained, and for the two districts combined.

NUMBER AND PER CENT OF EMPLOYEES IN EACH DISTRICT WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1910 TO 1913—STANDARD RAIL MILLS.

[The figures for each group of years are for identical plants.]

District, and number of plants.	Year.	Number of employees.	Number of employees whose customary working time per week was—				Per cent of employees whose customary working time per week was—			
			6 days.	6 days and 7 days alternately.	6 days, 6 days, and 7 days in rotation.	7 days.	6 days.	6 days and 7 days alternately.	6 days, 6 days, and 7 days in rotation.	7 days.
Pittsburgh:										
2 plants.....	1910	374	312	.....	.....	62	83.4	.....	.....	16.6
	1911	348	332	10	.....	6	95.4	2.9	.....	1.7
3 plants.....	1911	447	430	10	.....	7	96.2	2.2	.....	1.6
	1912	431	412	12	.....	7	95.6	2.8	.....	1.6
3 plants.....	1912	495	467	8	.....	20	94.3	1.6	.....	4.0
	1913	507	473	13	.....	21	93.3	2.6	.....	4.1
Great Lakes and Middle West:										
4 plants.....	1910	1,161	727	8	27	399	62.6	.7	2.3	34.4
	1911	904	792	52	27	33	87.6	5.8	3.0	3.7
4 plants.....	1911	908	796	52	27	33	87.7	5.7	3.0	3.6
	1912	1,026	900	76	27	23	87.7	7.4	2.6	2.2
4 plants.....	1912	940	926	6	.....	8	98.5	.6	.....	.9
	1913	920	904	6	3	7	98.3	.7	.3	.8
Total:										
6 plants.....	1910	1,535	1,039	8	27	461	67.7	.5	1.8	30.0
	1911	1,252	1,124	62	27	39	89.8	5.0	2.2	3.1
7 plants.....	1911	1,355	1,226	62	27	40	90.5	4.6	2.0	3.0
	1912	1,457	1,312	88	27	30	90.0	6.0	1.9	2.1
7 plants.....	1912	1,435	1,393	14	.....	28	97.1	1.0	.....	2.0
	1913	1,427	1,377	19	3	28	96.5	1.3	.2	2.0

In addition to the text tables in the summary, four general tables are presented for the standard-rail-mill department, as follows:

Table I.—Average full-time weekly earnings and average and classified rates of wages per hour in the United States, by years, 1910 to 1913.

Table II.—Average full-time weekly earnings and average and classified rates of wages per hour in each year, by districts, 1912 and 1913.

Table III.—Average and classified full-time hours per week in the United States, by years, 1910 to 1913.

Table IV.—Average and classified full-time hours per week in each year, by districts, 1912 and 1913.

In Tables I and III, in addition to actual data, percentages computed therefrom are given. The data from these two tables are summarized in the text table on pages 170 to 172.

The order in which the occupations are given in Tables I to IV, inclusive, and in the table of relative numbers, follows that of the processes of manufacture.

“Identical plants,” as used in the tables of this report, are identical units of identical establishments, reporting the same occupations in each of two or more consecutive years. For a more extended explanation see page 17.

Figures for each geographical division for each preceding year, back to 1910, corresponding to those given for 1912 and 1913 in Tables II and IV, and descriptions of the occupations which appear in the tables of this report, were given in Bulletin No. 151 of this Bureau, but have been omitted from the present report.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—STANDARD RAIL MILLS.

[The figures for each group of years are for identical plants.]

NUMBER.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time week- ly earnings.	Employees earning each classified rate of wages per hour.											
						Under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Charging-machine operators:																	
3 plants.....	1910	22	72.0	\$0.234	\$16.85					6		8					
	1911	22	72.0	.232	16.72			8		6	8						
	1912	22	72.0	.244	17.58			8			10	4					
2 plants.....	1912	14	72.0	.284	20.43						10	4					
	1913	14	72.0	.321	23.12							14					
Reheaters:																	
4 plants.....	1910	23	72.2	.429	31.00					1			22				
	1911	23	72.0	.421	30.28					1		10	12				
	1912	23	72.0	.410	29.50						11	1	1	10			
3 plants.....	1912	13	72.0	.531	38.23						1	1	1	10			
	1913	13	72.0	.586	42.23							1	2		10		
Reheaters' helpers:																	
3 plants.....	1910	24	71.3	.280	19.95				1	11		12					
	1911	24	72.0	.264	18.98				1	6	17						
	1912	24	72.0	.304	21.87				1	1	11	11					
	1913	23	72.0	.345	24.87						1		22				
Roll engineers:																	
6 plants.....	1910	42	77.4	.310	24.30					16	10	6	10				
	1911	37	76.2	.282	21.67					16	10	9	2				
7 plants.....	1911	43	75.8	.277	21.14						20	12	9	2			
	1912	48	74.1	.304	22.44						13	19	12	4			
7 plants.....	1912	32	75.2	.307	22.95						12	8	8	4			
	1913	32	74.9	.323	24.16							16	12		4		
Rollers:																	
5 plants.....	1910	12	72.3	.624	45.09										4	8	
	1911	12	72.3	.614	44.40										3	7	1
6 plants.....	1911	14	72.2	.591	42.67									3	3	7	1
	1912	14	72.2	.646	46.65									1	1	9	3
	1913	14	72.6	.690	50.18											10	4
Rollers' helpers:																	
1 plant.....	1910	3	72.0	.561	40.39										3		
	1911	1	72.0	.458	32.98									1			
2 plants.....	1911	3	72.7	.284	20.56					2							
	1912	6	72.6	.304	21.98						4			2			
	1913	6	73.3	.323	23.61							4	2				
Table lever men:																	
6 plants.....	1910	74	65.5	.454	28.25						2	2	32	20		12	6
	1911	69	64.0	.422	26.08						5	10	21	13	16	4	
	1912	74	64.5	.427	26.82						6	13	13	12	28	2	
6 plants.....	1912	80	67.1	.392	26.52						11	20	13	12	22	2	
	1913	80	67.1	.416	27.51						12	11	21	10	14	12	
Table men:																	
4 plants.....	1910	26	72.0	.279	20.06					6		10	10				
	1911	26	72.0	.264	19.00					6	2	12	6				
5 plants.....	1911	27	72.4	.262	18.97					6	3	12	6				
	1912	25	72.5	.287	20.77					4	3	5	13				
5 plants.....	1912	30	72.0	.324	23.32					4	2	5	13	6			
	1913	30	72.0	.354	25.47							5		21	4		
Guide setters:																	
5 plants.....	1910	20	66.8	.440	29.26					1	1		5	4	9		
	1911	17	65.8	.373	24.31					1	1	1	7	6	1		
7 plants.....	1911	27	66.8	.336	22.20						1	5	4	10	6	1	
	1912	30	67.3	.346	23.14						1	5	6	9	8	1	
4 plants.....	1912	17	68.3	.340	22.61							2	5	7	2	1	
	1913	17	69.2	.384	26.20								2	8	7		

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—STANDARD RAIL MILLS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.											
						Under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Hot-saw men: 6 plants.....	1910	19	72.0	\$0.289	\$20.79					7	2	10					
	1911	14	72.0	.258	18.56					7	5	2					
7 plants.....	1911	16	72.0	.251	18.16					9	5	2					
	1912	18	72.0	.257	18.52			2	1	5	8	2					
7 plants.....	1912	26	72.0	.260	18.69			2	1	5	8	4					
	1913	20	72.0	.283	20.36					6	5	9					
Hot-saw men's helpers: 6 plants.....	1910	64	72.4	.165	11.92		18	40	6								
	1911	59	72.1	.168	12.14		9	44	6								
7 plants.....	1911	66	72.1	.168	12.10		13	47	6								
	1912	73	72.1	.169	12.20	3		60	10								
7 plants.....	1912	55	72.1	.170	12.24	3		42	10								
	1913	59	72.1	.201	14.52				32	27							
Hotbed lever men: 6 plants.....	1910	34	74.1	.209	15.64			4	14	10	6						
	1911	27	72.1	.197	14.21			6	9	12							
7 plants.....	1911	31	72.1	.195	14.06			8	11	12							
	1912	35	72.1	.201	14.51			9	12	12	2						
7 plants.....	1912	35	72.1	.195	14.07			11	12	12							
	1913	36	72.1	.213	15.36				10	26							
Hotbed men: 6 plants.....	1910	44	73.6	.176	12.95	6		16	8	14							
	1911	43	72.0	.175	12.60	6	4	18	2	13							
7 plants.....	1911	47	72.0	.176	12.65	6	4	20	4	13							
	1912	48	72.2	.180	12.98	6	2	25	3	8	4						
7 plants.....	1912	46	72.0	.181	13.01	6	1	24	3	8	4						
	1913	48	72.0	.209	15.01	6			18	18	2	4					
Straighteners, gag press: 5 plants.....	1910	106	59.0	.564	32.41								52	12	36	6	
	1911	90	56.3	.534	30.12							14	27		49		
6 plants.....	1911	94	56.9	.526	29.91							18	27		49		
	1912	98	57.6	.530	30.79							24	18		50	6	
7 plants.....	1912	110	59.1	.514	30.45							36	18		50	6	
	1913	101	59.2	.576	34.06							36	18	41		6	
Straighteners' helpers: 5 plants.....	1910	139	72.1	.205	14.55		1	72		42	1	23					
	1911	116	69.8	.205	14.04			63	18	14		21					
6 plants.....	1911	120	69.9	.205	14.05			63	18	18		21					
	1912	134	70.0	.212	14.51			90		18	4	16	6				
7 plants.....	1912	146	70.2	.211	14.54			90		30	4	16	6				
	1913	131	70.0	.253	17.28				34	71	4		22				
Clippers: 5 plants.....	1910	114	72.1	.231	16.78			21	12	24	57						
	1911	82	70.0	.240	16.88			1	32	10	27	12					
6 plants.....	1911	91	70.2	.233	16.44			10	32	10	27	12					
	1912	99	70.3	.221	15.60			3	36	48		12					
7 plants.....	1912	113	70.2	.224	15.79			9	36	48	8	12					
	1913	103	70.0	.267	18.76				3	30	50	20					

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—STANDARD RAIL MILLS—Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Number of employ- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.											
						Under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Drillers a n d punchers: 5 plants.....	1910 1911	152 123	76.7 70.5	\$0.220 .221	\$16.78 15.59			28 4	72 56	52 33							
6 plants.....	1911 1912	133 145	70.6 70.5	.219 .206	15.35 14.51			14 2	56 87	33 54	30 2						
7 plants.....	1912 1913	203 179	70.5 70.5	.214 .249	15.05 17.45			2 2	113 100	70 65	16 12	2 2					
Cold-saw men: 5 plants.....	1910 1911	18 18	74.7 69.1	.191 .194	14.21 13.43			1 1	15 16	2 1							
6 plants.....	1911 1912	19 19	69.3 69.3	.194 .196	13.43 13.60		1		17 18		1 1						
6 plants.....	1912 1913	22 23	71.8 72.3	.213 .233	15.50 17.04				17 18		2 4	3 1					
Cold-saw men's helpers: 3 plants.....	1910 1911	30 31	76.0 72.0	.171 .172	12.98 12.40			30 31									
4 plants.....	1911 1912	36 29	72.0 72.0	.172 .173	12.38 12.45			36 29									
7 plants.....	1912 1913	54 48	73.3 73.5	.183 .204	13.56 15.10			46 12	4 10	4 18							
Inspectors: 5 plants.....	1910 1911	68 48	75.5 70.4	.225 .233	16.77 16.29			4 4	26 10	30 27	2 2	5 4	1 1				
7 plants.....	1911 1912	68 76	70.9 71.0	.230 .228	16.25 16.12			4 2	10 19	41 43	8 7	4 2	1 3				
7 plants.....	1912 1913	74 73	70.9 70.5	.229 .258	16.17 18.11		2		19 35	41 29	7 7	2 6	3 2		1		
Laborers: 6 plants.....	1910 1911	501 370	76.0 71.9	.163 .169	12.31 12.12		117 37	384 333									
7 plants.....	1911 1912	382 417	71.9 71.9	.169 .168	12.12 12.07		37 21	345 396									
7 plants.....	1912 1913	327 377	70.2 70.5	.169 .193	11.88 13.61		17	310 52									

PER CENT.

Charging-machine operators:																
3 plants.....	1910	22	72.0	\$0.234	\$16.87			36.4	27.3		36.4					
	1911	22	72.0	.232	16.72			36.4	27.3	36.4						
	1912	22	72.0	.244	17.58			36.4		45.5	18.2					
2 plants.....	1912	14	72.0	.284	20.43					71.4	28.6					
	1913	14	72.0	.321	23.12						100.0					
Reheaters:																
4 plants.....	1910	23	72.2	.429	31.00					4.3		95.7				
	1911	23	72.0	.421	30.28					4.3	43.5	52.2				
	1912	23	72.0	.410	29.50					47.8	4.3	4.3	43.5			
3 plants.....	1912	13	72.0	.531	38.23					7.7	7.7	7.7	76.9			
	1913	13	72.0	.586	42.23						7.7	15.4		76.9		

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—STANDARD RAIL MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earn- ings.	Employees earning each classified rate of wages per hour.										
						Under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Reheaters' help- ers:																
3 plants.....	1910	24	71.3	\$0.230	\$19.95				4.2	45.8		50.0				
	1911	24	72.0	.264	18.98				4.2	25.0	70.8					
	1912	24	72.0	.304	21.87				4.2	4.2	45.8	45.8				
	1913	23	72.0	.345	24.87					4.3		95.7				
Roll engineers:																
6 plants.....	1910	42	77.4	.310	24.30				38.1	23.8	14.3	23.8				
	1911	37	76.2	.282	21.67				43.2	27.0	24.3	5.4				
7 plants.....	1911	43	75.8	.277	21.14				46.5	27.9	20.9	4.7				
	1912	48	74.1	.304	22.44				27.1	39.6	25.0	8.3				
7 plants.....	1912	32	75.2	.307	22.95				37.5	25.0	25.0	12.5				
	1913	32	74.9	.323	24.16					50.0	37.5		12.5			
Rollers:																
5 plants.....	1910	12	72.3	.624	45.09									33.3	66.7	
	1911	12	72.3	.614	44.40								8.3	25.0	58.3	8.3
6 plants.....	1911	14	72.2	.591	42.67									21.4	21.4	50.0
	1912	14	72.2	.646	46.65								7.1	7.1	64.3	21.4
	1913	14	72.6	.630	50.18										71.4	28.6
Rollers' helpers:																
1 plant.....	1910	3	72.0	.561	40.39									100.0		
	1911	1	72.0	.458	32.98								100.0			
2 plants.....	1911	3	72.7	.284	20.56				66.7				33.3			
	1912	6	72.6	.304	21.98				66.7				33.3			
	1913	6	73.3	.323	23.61					66.7		33.3				
Table lever men:																
6 plants.....	1910	74	65.5	.454	28.25				2.7	2.7	43.2	27.0			16.2	8.1
	1911	69	64.0	.422	26.08				7.2	14.5	30.4	18.8	23.2	5.8		
	1912	74	64.5	.427	26.82				8.1	17.6	17.6	16.2	37.8	2.7		
6 plants.....	1912	80	67.1	.392	25.62				13.8	25.0	16.3	15.0	27.5	2.5		
	1913	80	67.1	.416	27.51				15.0	13.8	26.3	12.5	17.5	15.0		
Table men:																
4 plants.....	1910	26	72.0	.279	20.06				23.1		38.5	38.5				
	1911	26	72.0	.264	19.00				23.1	7.7	46.2	23.1				
5 plants.....	1911	27	72.4	.262	19.97				22.2	11.1	44.4	22.2				
	1912	25	72.5	.287	20.77				16.0	12.0	20.0	52.0				
5 plants.....	1912	30	72.0	.324	23.32				13.3	6.7	16.7	43.3	20.0			
	1913	30	72.0	.354	25.47					16.7		70.0	13.3			
Guide setters:																
5 plants.....	1910	20	66.8	.440	29.26				5.0	5.0		25.0	20.0	45.0		
	1911	17	65.8	.373	24.31				5.9	5.9	5.9	41.2	35.3	5.9		
7 plants.....	1911	27	66.8	.336	22.20				3.7	18.5	14.8	37.0	22.2	3.7		
	1912	30	67.3	.346	23.14				3.3	16.7	20.0	30.0	26.7	3.3		
4 plants.....	1912	17	68.3	.340	22.61					11.8	29.4	41.2	11.8	5.9		
	1913	17	69.2	.384	26.20						11.8	47.1	41.2			
Hot-saw men:																
6 plants.....	1910	19	72.0	.289	20.79					36.8	10.5	52.6				
	1911	14	72.0	.258	18.56					50.0	35.7	14.3				
7 plants.....	1911	16	72.0	.251	18.10						56.3	31.3	12.5			
	1912	18	72.0	.257	18.52				11.1	5.6	27.8	44.4	11.1			
7 plants.....	1912	20	72.0	.260	18.60				10.0	5.0	25.0	40.0	20.0			
	1913	20	72.0	.283	20.36					30.0	25.0	45.0				
Hot-saw men's helpers:																
6 plants.....	1910	64	72.4	.165	11.92		28.1	62.5	9.4							
	1911	59	72.1	.168	12.14		15.3	74.6	10.2							
7 plants.....	1911	66	72.1	.168	12.10		19.7	71.2	9.1							
	1912	73	72.1	.169	12.20	4.1		88.2	13.7							

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—STANDARD RAIL MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employ- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earn- ings.	Employees earning each classified rate of wages per hour.												
						Under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.		
Hot-saw men's helpers—Con.	1912	55	72.1	\$0.170	\$12.24	5.5	76.4	18.2	54.2	45.8								
7 plants.....	1913	59	72.1	.201	14.52													
Hotbed lever men:																		
6 plants.....	1910	34	74.1	.209	15.64			11.8	41.2	29.4	17.6							
	1911	27	72.1	.197	14.21			22.2	33.3	44.4								
7 plants.....	1911	31	72.1	.195	14.06			25.8	35.5	38.7								
	1912	35	72.1	.201	14.51			25.7	34.3	34.3	5.7							
7 plants.....	1912	35	72.1	.195	14.07			31.4	34.3	34.3								
	1913	36	72.1	.213	15.36			27.8	72.2									
Hotbed men:																		
6 plants.....	1910	44	73.6	.176	12.95	13.6	36.4	18.2	31.8									
	1911	43	72.0	.175	12.60	14.0	9.3	41.9	4.7	30.2								
7 plants.....	1911	47	72.0	.176	12.65	12.8	8.5	42.6	8.5	27.7								
	1912	48	72.2	.180	12.98	12.5	4.2	52.1	6.3	16.7	8.3							
7 plants.....	1912	46	72.0	.181	13.01	13.0	2.2	52.2	6.5	17.4	8.7							
	1913	48	72.0	.209	15.01	12.5			37.5	37.5	4.2	8.3						
Straighteners, gag press:																		
5 plants.....	1910	106	59.0	.564	32.41								49.1	11.3	34.0	5.7		
	1911	90	56.3	.534	30.12							15.6	30.0		54.4			
6 plants.....	1911	94	56.9	.526	29.91							19.1	28.7		52.1			
	1912	98	57.6	.530	30.79							24.5	18.4		51.0	6.1		
7 plants.....	1912	110	59.1	.514	30.45							32.7	16.4		45.5	5.5		
	1913	101	59.2	.576	34.06							35.6	17.8		40.6	5.9		
Straighteners' helpers:																		
5 plants.....	1910	139	72.1	.205	14.55		7	51.8		30.2	7	16.5						
	1911	116	69.8	.205	14.04			54.3	15.6	12.1		18.1						
6 plants.....	1911	120	69.9	.205	14.05			52.5	15.6	15.0		17.5						
	1912	134	70.0	.212	14.51			67.2		13.4	3.0	11.9	4.5					
7 plants.....	1912	146	70.2	.211	14.54			61.6		20.5	2.7	11.0	4.1					
	1913	131	70.0	.253	17.28				26.0	54.2	3.1		16.8					
Chippers:																		
5 plants.....	1910	114	72.1	.231	16.78			18.4	10.5	21.1	50.0							
	1911	82	70.0	.240	16.88			1.2	39.0	12.2	32.9	14.6						
6 plants.....	1911	91	70.2	.233	16.44			11.0	35.2	11.0	29.7	13.2						
	1912	99	70.3	.221	15.60			3.0	36.4	48.5		12.1						
7 plants.....	1912	113	70.2	.224	15.79			8.0	31.9	42.5	7.1	10.6						
	1913	103	70.0	.267	18.76				2.9	29.1	48.5	19.4						
Drillers and punchers:																		
5 plants.....	1910	152	76.7	.220	16.78			18.4		47.4	34.2							
	1911	123	70.5	.221	15.59			3.3	45.5	26.8	24.4							
6 plants.....	1911	133	70.6	.218	15.35			10.5	42.1	24.8	22.6							
	1912	145	70.5	.206	14.51			1.4	60.0	37.2		1.4						
7 plants.....	1912	203	70.5	.214	15.05			1.0	55.7	34.5	7.9	1.0						
	1913	179	70.5	.249	17.45			1.1		55.9	36.3	6.7						
Cold-saw men:																		
5 plants.....	1910	18	74.7	.191	14.21			5.6	83.3	11.1								
	1911	18	69.1	.194	13.43				88.9		5.6							
6 plants.....	1911	19	69.3	.194	13.43			5.3		89.5		5.3						
	1912	19	69.3	.190	13.60					94.7		5.3						
6 plants.....	1912	22	71.8	.213	15.50					77.3		9.1	13.6					
	1913	23	72.3	.233	17.04					78.3		17.4	4.3					

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1910 TO 1913—STANDARD RAIL MILLS—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Num- ber of em- ploy- ees.	Aver- age full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.										
						Un- der 14 cts.	14 and un- der 16 cts.	16 and un- der 18 cts.	18 and un- der 20 cts.	20 and un- der 25 cts.	25 and un- der 30 cts.	30 and un- der 40 cts.	40 and un- der 50 cts.	50 and un- der 60 cts.	60 and un- der 70 cts.	70 cts. and over.
Cold-saw men's helpers:																
3 plants.....	1910	30	76.0	\$0.171	\$12.98					100.0						
	1911	31	72.0	.172	12.40					100.0						
4 plants.....	1911	36	72.0	.172	12.38					100.0						
	1912	29	72.0	.173	12.45					100.0						
7 plants.....	1912	54	73.3	.183	13.56				85.2		7.4	7.4				
	1913	48	73.5	.204	15.10				25.0	20.8	37.5	16.7				
Inspectors:																
5 plants.....	1910	68	75.5	.225	16.77				5.9	38.2	44.1	2.9	7.4	1.5		
	1911	48	70.4	.233	16.29				8.3	20.8	56.3	4.2	8.3	2.1		
7 plants.....	1911	68	70.9	.230	16.25				5.9	14.7	60.3	11.8	5.9	1.5		
	1912	76	71.0	.228	16.12	2.6			25.0	56.6	9.2	2.6	3.9			
7 plants.....	1912	74	70.9	.229	16.17	2.7			25.7	55.4	9.5	2.7	4.1			
	1913	73	70.5	.258	18.11					47.9	39.7	8.2	2.7	1.4		
Laborers:																
6 plants.....	1910	501	76.0	.163	12.31	23.4	76.6									
	1911	370	71.9	.169	12.12	10.0	90.0									
7 plants.....	1911	382	71.9	.169	12.12	9.7	90.3									
	1912	417	71.9	.168	12.07	5.0	95.0									
7 plants.....	1912	327	70.2	.169	11.88	5.2	94.8									
	1913	377	70.5	.193	13.61		13.8	49.1	37.1							

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—STANDARD RAIL MILLS.

[The abbreviation "G. L. and M. W." stands for "Great Lakes and Middle West."]

CHARGING-MACHINE OPERATORS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Pittsburgh.....	1	8	72.0	\$0.290	\$20.88						4	4				
G. L. and M. W.	1	6	72.0	.276	19.84						6					
Total.....	2	14	72.0	.284	23.43						10	4				
1913.																
Pittsburgh.....	1	8	72.0	.329	23.69							8				
G. L. and M. W.	1	6	72.0	.311	22.36							6				
Total.....	2	14	72.0	.321	23.12							14				

REHEATERS.

1912.																
Pittsburgh.....	1	2	72.0	\$0.399	\$28.73							1	1			
G. L. and M. W.	2	11	72.0	.555	39.96						1			10		
Total.....	3	13	72.0	.531	38.23						1	1	1	10		
1913.																
Pittsburgh.....	1	2	72.0	.482	34.70								2			
G. L. and M. W.	2	11	72.0	.605	43.59							1			10	
Total.....	3	13	72.0	.586	42.23							1	2		10	

REHEATERS' HELPERS.

1912.																
Pittsburgh.....	1	12	72.0	\$0.328	\$23.62						6	6				
G. L. and M. W.	2	12	72.0	.280	21.13				1	1	5	5				
Total.....	3	24	72.0	.304	21.87				1	1	11	11				
1913.																
Pittsburgh.....	1	12	72.0	.354	25.49							12				
G. L. and M. W.	2	11	72.0	.336	24.19					1		10				
Total.....	3	23	72.0	.345	24.87					1		22				

ROLL ENGINEERS.

1912.																
Pittsburgh.....	1	14	77.6	\$0.253	\$19.65					8	6					
G. L. and M. W.	4	18	73.3	.349	25.53					4	2	8	4			
Total.....	7	32	75.2	.307	22.95					12	8	8	4			
1913.																
Pittsburgh.....	3	14	77.0	.276	21.35						12	2				
G. L. and M. W.	4	18	73.3	.360	26.34						4	10		4		
Total.....	7	32	74.9	.323	24.16						16	12		4		

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—STANDARD RAIL MILLS—Continued.

ROLLERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Pittsburgh.....	3	8	72.0	\$0.609	\$43.86								1	1	5	1
G. L. and M. W.	3	6	72.5	.695	50.37										4	2
Total.....	6	14	72.2	.646	46.65								1	1	9	3
1913.																
Pittsburgh.....	3	8	72.8	.688	50.18										6	2
G. L. and M. W.	3	6	72.5	.693	50.19										4	2
Total.....	6	14	72.6	.690	50.18										10	4

ROLLERS' HELPERS.

1912.																
Pittsburgh.....	1	4	72.9	\$0.224	\$16.34					4						
G. L. and M. W.	1	2	72.0	.462	33.26								2			
Total.....	2	6	72.6	.304	21.98					4			2			
1913.																
Pittsburgh.....	1	4	74.0	.286	21.16						4					
G. L. and M. W.	1	2	72.0	.396	23.51							2				
Total.....	2	6	73.3	.323	23.61						4	2				

TABLE LEVER MEN.

1912.																
Pittsburgh.....	2	16	73.5	\$0.277	\$20.26					4	7	5				
G. L. and M. W.	4	64	65.5	.421	26.96					7	13	8	12	22	2	
Total.....	6	80	67.1	.392	25.62					11	20	13	12	22	2	
1913.																
Pittsburgh.....	2	16	73.5	.343	25.07					2	3	9	2			
G. L. and M. W.	4	64	65.5	.434	28.12					10	8	12	8	14	12	
Total.....	6	80	67.1	.416	27.51					12	11	21	10	14	12	

TABLE MEN.

1912.																
Pittsburgh.....	2	12	72.0	\$0.291	\$20.92					2	5	5				
G. L. and M. W.	3	18	72.0	.346	24.92				4			8	6			
Total.....	5	30	72.0	.324	23.32				4	2	5	13	6			
1913.																
Pittsburgh.....	2	12	72.0	.354	25.52					1		11				
G. L. and M. W.	3	18	72.0	.353	25.44					4		10	4			
Total.....	5	30	72.0	.354	25.47					5		21	4			

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—STANDARD RAIL MILLS—Continued.**GUIDE SETTERS.**

Year and district.	Number of plants.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Pittsburgh.....	2	12	72.5	\$0.332	\$21.89					2	5	5				
G. L. and M. W.	2	5	53.2	.432	24.35							2	2	1		
Total.....	4	17	68.3	.340	22.61					2	5	7	2	1		
1913.																
Pittsburgh.....	2	12	73.8	.368	27.14						2	6	4			
G. L. and M. W.	2	5	53.2	.421	23.95							2	3			
Total.....	4	17	69.2	.384	26.20						2	8	7			

HOT-SAW MEN.

1912.																
Pittsburgh.....	3	6	72.0	\$0.211	\$15.16			2	1	3						
G. L. and M. W.	4	14	72.0	.281	21.20					2	8	4				
Total.....	7	20	72.0	.260	18.69			2	1	5	8	4				
1913.																
Pittsburgh.....	3	6	72.0	.268	19.26					2	3	1				
G. L. and M. W.	4	14	72.0	.289	21.83					4	2	8				
Total.....	7	20	72.0	.283	20.36					6	5	9				

HOT-SAW MEN'S HELPERS.

1912.																
Pittsburgh.....	3	20	72.2	\$0.109	\$12.21		3		13	4						
G. L. and M. W.	4	35	72.0	.170	12.26				29	6						
Total.....	7	55	72.1	.170	12.24		3		42	10						
1913.																
Pittsburgh.....	3	22	72.2	.214	15.44				4	18						
G. L. and M. W.	4	37	72.0	.194	13.97				28	9						
Total.....	7	59	72.1	.201	14.52				32	27						

HOTBED LEVER MEN.

1912.																
Pittsburgh.....	3	16	72.3	\$0.191	\$13.82			7	3	6						
G. L. and M. W.	4	19	72.0	.198	14.28				4	9	6					
Total.....	7	35	72.1	.195	14.07			11	12	12						
1913.																
Pittsburgh.....	3	16	72.3	.218	15.74				6	10						
G. L. and M. W.	4	20	72.0	.209	15.05				4	16						
Total.....	7	36	72.1	.213	15.36				10	26						

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—STANDARD RAIL MILLS—Continued.

HOTBED MEN.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Pittsburgh.....	3	16	72.0	\$0.185	\$13.30		1	10	1	4						
G. L. and M. W.	4	30	72.0	.178	12.85	16		14	2	4	4					
Total.....	7	46	72.0	.181	13.01	16	1	24	3	8	4					
1913.																
Pittsburgh.....	3	18	72.0	.218	15.67				2	14	2					
G. L. and M. W.	4	30	72.0	.203	14.62	6			16	4		4				
Total.....	7	48	72.0	.209	15.01	6			18	18	2	4				

STRAIGHTENERS, GAG PRESS.

1912.																
Pittsburgh.....	3	40	57.6	\$0.388	\$22.86							36			4	
G. L. and M. W.	4	70	60.0	.586	34.79								18		46	6
Total.....	7	110	59.1	.514	30.45							36	18		50	6
1913.																
Pittsburgh.....	3	40	57.6	.464	26.70							36		4		
G. L. and M. W.	4	61	60.2	.650	38.88									14	41	6
Total.....	7	101	59.2	.576	34.06							36		18	41	6

STRAIGHTENERS' HELPERS.

1912.																
Pittsburgh.....	3	41	72.0	\$0.195	\$14.05			25		12	4					
G. L. and M. W.	4	105	69.5	.218	14.73			65		18		16	6			
Total.....	7	146	70.2	.211	14.54			90		30	4	16	6			
1913.																
Pittsburgh.....	3	36	72.0	.221	15.91					32	4					
G. L. and M. W.	4	95	69.2	.265	17.79				34	39			22			
Total.....	7	131	70.0	.253	17.28				34	71	4		22			

CHIPPERS.

1912.																
Pittsburgh.....	3	35	72.0	\$0.218	\$15.67			1	18	8	8					
G. L. and M. W.	4	78	69.4	.227	15.84			8	18	40		12				
Total.....	7	113	70.2	.224	15.79			9	36	48	8	12				
1913.																
Pittsburgh.....	3	35	72.0	.271	19.51				1	8	18	8				
G. L. and M. W.	4	68	69.0	.265	18.38				2	22	32	12				
Total.....	7	103	70.0	.267	18.76				3	30	50	20				

¹ Earning 19 and under 12 cents per hour.

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—STANDARD RAIL MILLS—Continued.

DRILLERS AND PUNCHERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Pittsburgh.....	3	78	72.0	\$0.222	\$16.00				36	26	16					
G. L. and M. W.	4	125	69.5	.208	14.46			2	77	44		2				
Total.....	7	203	70.5	.214	15.05			2	113	70	16	2				
1913.																
Pittsburgh.....	3	78	72.0	.250	18.02					42	36					
G. L. and M. W.	4	101	69.4	.247	17.01			2		58	29	12				
Total.....	7	179	70.5	.249	17.45			2		100	65	12				

COLD-SAW MEN.

1912.																
Pittsburgh.....	3	9	79.6	\$0.232	\$18.68				5		2	2				
G. L. and M. W.	3	13	66.5	.199	13.30				12			1				
Total.....	6	22	71.8	.213	15.50				17		2	3				
1913.																
Pittsburgh.....	3	10	80.0	.244	19.68					6	4					
G. L. and M. W.	3	13	66.5	.225	15.01					12		1				
Total.....	6	23	72.3	.233	17.04					18	4	1				

COLD-SAW MEN'S HELPERS.

1912.																
Pittsburgh.....	3	29	75.3	\$0.199	\$15.22			21		4	4					
G. L. and M. W.	4	25	71.0	.164	11.63			25								
Total.....	7	54	73.3	.183	13.56			46		4	4					
1913.																
Pittsburgh.....	3	26	75.7	.220	16.84				2	16	8					
G. L. and M. W.	4	22	70.9	.184	13.03			12	8	2						
Total.....	7	48	73.5	.204	15.10			12	10	18	8					

INSPECTORS.

1912.																
Pittsburgh.....	3	22	72.0	\$0.214	\$15.39		2		2	13	5					
G. L. and M. W.	4	52	70.5	.235	16.50				17	28	2	2	3			
Total.....	7	74	70.9	.229	16.17		2		19	41	7	2	3			
1913.																
Pittsburgh.....	3	19	72.0	.247	17.75					12	4	3				
G. L. and M. W.	4	54	70.0	.262	18.24					23	25	3	2	1		
Total.....	7	73	70.5	.258	18.11					35	29	6	2	1		

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—STANDARD RAIL MILLS—Concluded.

LABORERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Pittsburgh.....	3	95	70.9	\$0.168	\$11.91	.....	17	78	.....	.....	.....	.....	.....	.....	.....	.....
G. L. and M. W.	4	232	70.0	.169	11.87	.....	.....	232	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	7	327	70.2	.169	11.88	.....	17	310	.....	.....	.....	.....	.....	.....	.....	.....
1913.																
Pittsburgh.....	3	113	71.3	.191	13.64	.....	.....	30	18	65	.....	.....	.....	.....	.....	.....
G. L. and M. W.	4	264	70.2	.194	13.60	.....	.....	22	167	75	.....	.....	.....	.....	.....	.....
Total.....	7	377	70.5	.193	13.61	.....	.....	52	185	140	.....	.....	.....	.....	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1913—STANDARD RAIL MILLS.

[The figures for each group of years are for identical plants.]

NUMBER.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Charging-machine operators:											
3 plants.....	1910	22	72.0	.....	.....	.....	.....	.....	22	.....	.....
	1911	22	72.0	.....	.....	.....	.....	.....	22	.....	.....
	1912	22	72.0	.....	.....	.....	.....	.....	22	.....	.....
2 plants.....	1912	14	72.0	.....	.....	.....	.....	.....	14	.....	.....
	1913	14	72.0	.....	.....	.....	.....	.....	14	.....	.....
Reheaters:											
4 plants.....	1910	23	72.2	.....	.....	.....	.....	.....	21	2	.....
	1911	23	72.0	.....	.....	.....	.....	.....	23	.....	.....
	1912	23	72.0	.....	.....	.....	.....	.....	23	.....	.....
3 plants.....	1912	13	72.0	.....	.....	.....	.....	.....	13	.....	.....
	1913	13	72.0	.....	.....	.....	.....	.....	13	.....	.....
Reheaters' helpers:											
3 plants.....	1910	24	71.3	.....	.....	.....	.....	12	12	.....	.....
	1911	24	72.0	.....	.....	.....	.....	.....	24	.....	.....
	1912	24	72.0	.....	.....	.....	.....	.....	24	.....	.....
	1913	23	72.0	.....	.....	.....	.....	.....	23	.....	.....
Roll engineers:											
6 plants.....	1910	42	77.4	.....	.....	.....	.....	.....	20	6	16
	1911	37	76.2	.....	.....	.....	.....	.....	18	12	7
7 plants.....	1911	43	75.8	.....	.....	.....	.....	.....	18	18	7
	1912	48	74.1	.....	.....	.....	.....	.....	28	18	2
7 plants.....	1912	32	75.2	.....	.....	.....	.....	.....	14	14	4
	1913	32	74.9	.....	.....	.....	.....	.....	20	8	4
Rollers:											
5 plants.....	1910	12	72.3	.....	.....	.....	.....	.....	10	2	.....
	1911	12	72.3	.....	.....	.....	.....	.....	10	2	.....
6 plants.....	1911	14	72.2	.....	.....	.....	.....	.....	12	2	.....
	1912	14	72.2	.....	.....	.....	.....	.....	12	2	.....
	1913	14	72.6	.....	.....	.....	.....	.....	11	3	.....
Rollers' helpers:											
1 plant.....	1910	3	72.0	.....	.....	.....	.....	.....	3	.....	.....
	1911	1	72.0	.....	.....	.....	.....	.....	1	.....	.....
2 plants.....	1911	3	72.7	.....	.....	.....	.....	.....	1	2	.....
	1912	6	72.6	.....	.....	.....	.....	.....	2	4	.....
	1913	6	73.3	.....	.....	.....	.....	.....	3	3	.....
Table lever men:											
6 plants.....	1910	74	65.5	.....	24	.....	.....	.....	44	.....	6
	1911	69	64.0	.....	24	.....	.....	.....	45	.....	.....
	1912	74	64.5	.....	24	.....	.....	.....	50	.....	.....
6 plants.....	1912	80	67.1	.....	18	.....	.....	.....	60	.....	2
	1913	80	67.1	.....	18	.....	.....	.....	60	.....	2
Table men.											
4 plants.....	1910	26	72.0	.....	.....	.....	.....	.....	26	.....	.....
	1911	26	72.0	.....	.....	.....	.....	.....	26	.....	.....
5 plants.....	1911	27	72.4	.....	.....	.....	.....	.....	26	1	.....
	1912	25	72.5	.....	.....	.....	.....	.....	24	.....	1
5 plants.....	1912	30	72.0	.....	.....	.....	.....	.....	30	.....	.....
	1913	30	72.0	.....	.....	.....	.....	.....	30	.....	.....
Guide setters:											
5 plants.....	1910	20	66.8	.....	3	.....	3	.....	14	.....	.....
	1911	17	65.8	.....	3	.....	3	.....	11	.....	.....
7 plants.....	1911	27	66.8	.....	3	.....	6	1	11	6	.....
	1912	30	67.3	.....	3	.....	6	1	14	6	.....
4 plants.....	1912	17	68.3	.....	3	.....	.....	.....	8	6	.....
	1913	17	69.2	.....	3	.....	.....	.....	8	6	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1913—STANDARD RAIL MILLS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Hot-saw men:											
6 plants.....	1910	19	72.0						19		
	1911	14	72.0						14		
7 plants.....	1911	16	72.0						16		
	1912	18	72.0						18		
7 plants.....	1912	20	72.0						20		
	1913	20	72.0						20		
Hot-saw men's helpers:											
6 plants.....	1910	64	72.4						62		2
	1911	59	72.1						51	8	
7 plants.....	1911	66	72.1						58	8	
	1912	73	72.1						65	8	
7 plants.....	1912	55	72.1						47	8	
	1913	59	72.1						51	8	
Hotbed lever men:											
6 plants.....	1910	34	74.1						28		6
	1911	27	72.1						19	8	
7 plants.....	1911	31	72.1						23	8	
	1912	35	72.1						27	8	
7 plants.....	1912	35	72.1						27	8	
	1913	36	72.1						28	8	
Hotbed men:											
6 plants.....	1910	44	73.6						38		6
	1911	43	72.0						43		
7 plants.....	1911	47	72.0						47		
	1912	48	72.2						46	2	
7 plants.....	1912	46	72.0						46		
	1913	48	72.0						48		
Straighteners, gag press:											
5 plants.....	1910	106	59.0	66				6	12		22
	1911	90	56.3	56			6		28		
6 plants.....	1911	94	56.9	56		6			32		
	1912	98	57.6	56		6			36		
7 plants.....	1912	110	59.1	56		6			48		
	1913	101	59.2	51		6			44		
Straighteners' helpers:											
5 plants.....	1910	139	72.1				23		92		24
	1911	116	69.8				21		95		
6 plants.....	1911	120	69.9				21		99		
	1912	134	70.0				22		112		
7 plants.....	1912	146	70.2				22		124		
	1913	131	70.0				22		109		
Chippers:											
5 plants.....	1910	114	72.1				12	16	61		25
	1911	82	70.0				2	16	64		
6 plants.....	1911	91	70.2				2	16	73		
	1912	99	70.3				2	16	81		
7 plants.....	1912	113	70.2				2	20	91		
	1913	103	70.0				14	4	85		
Drillers and punchers:											
5 plants.....	1910	152	76.7				20		52		80
	1911	123	70.5					21	102		
6 plants.....	1911	133	70.6					21	112		
	1912	145	70.5					24	121		
7 plants.....	1912	208	70.5					34	169		
	1913	179	70.5				19	4	156		

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1913—STANDARD RAIL MILLS—Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Cold-saw men:											
5 plants.....	1910	18	74.7				6		2		10
	1911	18	69.1					8	6	4	
6 plants.....	1911	19	69.3					8	7	4	
	1912	19	69.3					8	7	4	
6 plants.....	1912	22	71.8					8	6	4	4
	1913	23	72.3					8	6	4	5
Cold-saw men's helpers:											
3 plants.....	1910	30	76.0						20		10
	1911	31	72.0						31		
4 plants.....	1911	36	72.0						36		
	1912	29	72.0						29		
7 plants.....	1912	54	73.3				2		44		8
	1913	48	73.5				2		38		8
Inspectors:											
5 plants.....	1910	68	75.5				9		30		29
	1911	48	70.4				3	6	39		
7 plants.....	1911	68	70.9				3	6	59		
	1912	76	71.0				3	6	67		
7 plants.....	1912	74	70.9				3	6	65		
	1913	73	70.5				5	7	61		
Laborers:											
6 plants.....	1910	501	76.0				45	22	209		225
	1911	370	71.9				20	56	218	44	32
7 plants.....	1911	382	71.9				20	56	230	44	32
	1912	417	71.9				30	54	238	68	27
7 plants.....	1912	327	70.2				21	46	257		3
	1913	377	70.5				28	37	309		3

PER CENT.

Charging-machine operators:											
3 plants.....	1910	22	72.0						100.0		
	1911	22	72.0						100.0		
	1912	22	72.0						100.0		
2 plants.....	1912	14	72.0						100.0		
	1913	14	72.0						100.0		
Reheaters:											
4 plants.....	1910	23	72.2						91.3	8.7	
	1911	23	72.0						100.0		
	1912	23	72.0						100.0		
3 plants.....	1912	13	72.0						100.0		
	1913	13	72.0						100.0		
Reheaters' helpers:											
3 plants.....	1910	24	71.3					50.0	50.0		
	1911	24	72.0						100.0		
	1912	24	72.0						100.0		
	1913	23	72.0						100.0		
Roll engineers:											
6 plants.....	1910	42	77.4						47.6	14.3	38.1
	1911	37	76.2						48.6	32.4	18.9
7 plants.....	1911	43	75.8						41.9	41.9	16.3
	1912	48	74.1						58.3	37.5	4.2
7 plants.....	1912	32	75.2						43.8	43.8	12.5
	1913	32	74.9						62.5	25.0	12.5

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1913—STANDARD RAIL MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Rollers:											
5 plants.....	1910	12	72.3	.....	.....	.....	.....	.....	83.3	16.7	.....
	1911	12	72.3	.....	.....	.....	.....	.....	83.3	16.7	.....
6 plants.....	1911	14	72.2	.....	.....	.....	.....	.....	85.7	14.3	.....
	1912	14	72.2	.....	.....	.....	.....	.....	85.7	14.3	.....
	1913	14	72.6	.....	.....	.....	.....	.....	78.6	21.4	.....
Rollers' helpers:											
1 plant.....	1910	3	72.0	.....	.....	.....	.....	100.0	.....	.....	.....
	1911	1	72.0	.....	.....	.....	.....	100.0	.....	.....	.....
2 plants.....	1911	3	72.7	.....	.....	.....	.....	33.3	66.7	.....	.....
	1912	6	72.6	.....	.....	.....	.....	33.3	66.7	.....	.....
	1913	6	73.3	.....	.....	.....	.....	50.0	50.0	.....	.....
Table lever men:											
6 plants.....	1910	74	65.5	.....	32.4	.....	.....	59.5	.....	8.1	.....
	1911	69	64.0	.....	34.8	.....	.....	65.2	.....	.....	.....
	1912	74	64.5	.....	32.4	.....	.....	67.6	.....	.....	.....
6 plants.....	1912	80	67.1	.....	22.5	.....	.....	75.0	.....	2.5	.....
	1913	80	67.1	.....	22.5	.....	.....	75.0	.....	2.5	.....
Table men:											
4 plants.....	1910	26	72.0	.....	.....	.....	.....	100.0	.....	.....	.....
	1911	26	72.0	.....	.....	.....	.....	100.0	.....	.....	.....
5 plants.....	1911	27	72.4	.....	.....	.....	.....	96.3	3.7	.....	.....
	1912	25	72.5	.....	.....	.....	.....	96.0	.....	4.0	.....
5 plants.....	1912	30	72.0	.....	.....	.....	.....	100.0	.....	.....	.....
	1913	30	72.0	.....	.....	.....	.....	100.0	.....	.....	.....
Guide setters:											
5 plants.....	1910	20	66.8	.....	15.0	15.0	.....	70.0	.....	.....	.....
	1911	17	65.8	.....	17.6	17.6	.....	64.7	.....	.....	.....
7 plants.....	1911	27	66.8	.....	11.1	22.2	3.7	40.7	22.2	.....	.....
	1912	30	67.3	.....	10.0	20.0	3.3	46.7	20.0	.....	.....
4 plants.....	1912	17	68.3	.....	17.6	.....	.....	47.1	35.3	.....	.....
	1913	17	69.2	.....	17.6	.....	.....	47.1	35.3	.....	.....
Hot-saw men:											
6 plants.....	1910	19	72.0	.....	.....	.....	.....	100.0	.....	.....	.....
	1911	14	72.0	.....	.....	.....	.....	100.0	.....	.....	.....
7 plants.....	1911	16	72.0	.....	.....	.....	.....	100.0	.....	.....	.....
	1912	18	72.0	.....	.....	.....	.....	100.0	.....	.....	.....
7 plants.....	1912	20	72.0	.....	.....	.....	.....	100.0	.....	.....	.....
	1913	20	72.0	.....	.....	.....	.....	100.0	.....	.....	.....
Hot-saw men's helpers:											
6 plants.....	1910	64	72.4	.....	.....	.....	.....	96.9	.....	3.1	.....
	1911	59	72.1	.....	.....	.....	.....	86.4	13.6	.....	.....
7 plants.....	1911	66	72.1	.....	.....	.....	.....	87.9	12.1	.....	.....
	1912	73	72.1	.....	.....	.....	.....	89.0	11.0	.....	.....
7 plants.....	1912	55	72.1	.....	.....	.....	.....	85.5	14.5	.....	.....
	1913	59	72.1	.....	.....	.....	.....	86.4	13.6	.....	.....
Hotbed lever men:											
6 plants.....	1910	34	74.1	.....	.....	.....	.....	82.4	.....	17.6	.....
	1911	27	72.1	.....	.....	.....	.....	70.4	29.6	.....	.....
7 plants.....	1911	31	72.1	.....	.....	.....	.....	74.2	25.8	.....	.....
	1912	35	72.1	.....	.....	.....	.....	77.1	22.9	.....	.....
7 plants.....	1912	35	72.1	.....	.....	.....	.....	77.1	22.9	.....	.....
	1913	36	72.1	.....	.....	.....	.....	77.8	22.2	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1913—STANDARD RAIL MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Hotbed men:											
6 plants.....	1910	44	73.6	.....	.....	.....	.....	.....	86.4	.....	13.6
	1911	43	72.0	.....	.....	.....	.....	.....	100.0	.....	.....
7 plants.....	1911	47	72.0	.....	.....	.....	.....	.....	100.0	.....	.....
	1912	48	72.2	.....	.....	.....	.....	.....	95.8	4.2	.....
7 plants.....	1912	46	72.0	.....	.....	.....	.....	.....	100.0	.....	.....
	1913	48	72.0	.....	.....	.....	.....	.....	100.0	.....	.....
Straighteners, gag press:											
5 plants.....	1910	106	59.0	62.3	.....	.....	.....	5.7	11.3	.....	20.8
	1911	90	56.3	62.2	.....	.....	6.7	.....	31.1	.....	.....
6 plants.....	1911	94	56.9	59.6	.....	.....	6.4	.....	34.0	.....	.....
	1912	98	57.6	57.1	.....	.....	6.1	.....	36.7	.....	.....
7 plants.....	1912	110	59.1	50.9	.....	.....	5.5	.....	43.6	.....	.....
	1913	101	59.2	50.5	.....	.....	5.9	.....	43.6	.....	.....
Straighteners' helpers:											
5 plants.....	1910	139	72.1	.....	.....	.....	16.5	.....	66.2	.....	17.3
	1911	116	69.8	.....	.....	.....	18.1	.....	81.9	.....	.....
6 plants.....	1911	120	69.9	.....	.....	.....	17.5	.....	82.5	.....	.....
	1912	134	70.0	.....	.....	.....	16.4	.....	83.6	.....	.....
7 plants.....	1912	146	70.2	.....	.....	.....	15.1	.....	84.9	.....	.....
	1913	131	70.0	.....	.....	.....	16.8	.....	83.2	.....	.....
Chippers:											
5 plants.....	1910	114	72.1	.....	.....	.....	10.5	14.0	53.5	.....	21.9
	1911	82	70.0	.....	.....	.....	2.4	19.5	78.0	.....	.....
6 plants.....	1911	91	70.2	.....	.....	.....	2.2	17.6	80.2	.....	.....
	1912	99	70.3	.....	.....	.....	2.0	16.2	81.8	.....	.....
7 plants.....	1912	113	70.2	.....	.....	.....	1.8	17.7	80.5	.....	.....
	1913	103	70.0	.....	.....	.....	13.6	3.9	82.5	.....	.....
Drillers and punchers:											
5 plants.....	1910	152	76.7	.....	.....	.....	13.2	.....	34.2	.....	52.6
	1911	123	70.5	.....	.....	.....	.....	17.1	82.9	.....	.....
6 plants.....	1911	133	70.6	.....	.....	.....	.....	15.8	84.2	.....	.....
	1912	145	70.5	.....	.....	.....	.....	16.6	83.4	.....	.....
7 plants.....	1912	203	70.5	.....	.....	.....	.....	16.7	83.3	.....	.....
	1913	179	70.5	.....	.....	.....	10.6	2.2	87.2	.....	.....
Cold-saw men:											
5 plants.....	1910	18	74.7	.....	.....	.....	33.3	.....	11.1	.....	55.6
	1911	18	69.1	.....	.....	.....	.....	44.4	33.3	22.2	.....
6 plants.....	1911	19	69.3	.....	.....	.....	.....	42.1	36.8	21.1	.....
	1912	19	69.3	.....	.....	.....	.....	42.1	36.8	21.1	.....
6 plants.....	1912	22	71.8	.....	.....	.....	.....	36.4	27.3	18.2	18.2
	1913	23	72.3	.....	.....	.....	.....	34.8	26.1	17.4	21.7
Cold-saw men's helpers:											
3 plants.....	1910	30	76.0	.....	.....	.....	.....	.....	66.7	.....	33.3
	1911	31	72.0	.....	.....	.....	.....	.....	100.0	.....	.....
4 plants.....	1911	36	72.0	.....	.....	.....	.....	.....	100.0	.....	.....
	1912	29	72.0	.....	.....	.....	.....	.....	100.0	.....	.....
7 plants.....	1912	54	73.3	.....	.....	.....	3.7	.....	81.5	.....	14.8
	1913	48	73.5	.....	.....	.....	4.2	.....	79.2	.....	16.7
Inspectors:											
5 plants.....	1910	68	75.5	.....	.....	.....	13.2	.....	44.1	.....	42.6
	1911	48	70.4	.....	.....	.....	6.3	12.5	81.3	.....	.....
7 plants.....	1911	68	70.9	.....	.....	.....	4.4	8.8	86.8	.....	.....
	1912	76	71.0	.....	.....	.....	3.9	7.9	88.2	.....	.....
7 plants.....	1912	74	70.9	.....	.....	.....	4.1	8.1	87.8	.....	.....
	1913	73	70.5	.....	.....	.....	6.8	9.6	83.6	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1910 TO 1913—STANDARD RAIL MILLS—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84
Laborers:										
6 plants	1910	501	76.0	.....	.....	.....	9.0	4.4	41.7	.....
	1911	370	71.9	.....	.....	.....	5.4	15.1	58.9	11.9
										44.9
										8.6
7 plants	1911	382	71.9	.....	.....	.....	5.2	14.7	60.2	11.5
	1912	417	71.9	.....	.....	.....	7.2	12.9	57.1	16.3
										8.4
										6.5
7 plants	1912	327	70.2	.....	.....	.....	6.4	14.1	78.6	.....
	1913	377	70.5	.....	.....	.....	7.4	9.8	82.0	.....
										.9
										.8

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—STANDARD RAIL MILLS.

CHARGING-MACHINE OPERATORS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Pittsburgh.....	1	8	72.0	.....	.....	.....	.....	.....	8	.....	.....
Great Lakes and Middle West...	1	6	72.0	.....	.....	.....	.....	.....	6	.....	.....
Total.....	2	14	72.0	.....	.....	.....	.....	.....	14	.....	.....
1913.											
Pittsburgh.....	1	8	72.0	.....	.....	.....	.....	.....	8	.....	.....
Great Lakes and Middle West...	1	6	72.0	.....	.....	.....	.....	.....	6	.....	.....
Total.....	2	14	72.0	.....	.....	.....	.....	.....	14	.....	.....

REHEATERS.

1912.											
Pittsburgh.....	1	2	72.0	.....	.....	.....	.....	.....	2	.....	.....
Great Lakes and Middle West...	2	11	72.0	.....	.....	.....	.....	.....	11	.....	.....
Total.....	3	13	72.0	.....	.....	.....	.....	.....	13	.....	.....
1913.											
Pittsburgh.....	1	2	72.0	.....	.....	.....	.....	.....	2	.....	.....
Great Lakes and Middle West...	2	11	72.0	.....	.....	.....	.....	.....	11	.....	.....
Total.....	3	13	72.0	.....	.....	.....	.....	.....	13	.....	.....

REHEATERS' HELPERS.

1912.											
Pittsburgh.....	1	12	72.0	.....	.....	.....	.....	.....	12	.....	.....
Great Lakes and Middle West...	2	12	72.0	.....	.....	.....	.....	.....	12	.....	.....
Total.....	3	24	72.0	.....	.....	.....	.....	.....	24	.....	.....
1913.											
Pittsburgh.....	1	12	72.0	.....	.....	.....	.....	.....	12	.....	.....
Great Lakes and Middle West...	2	11	72.0	.....	.....	.....	.....	.....	11	.....	.....
Total.....	3	23	72.0	.....	.....	.....	.....	.....	23	.....	.....

ROLL ENGINEERS.

1912.											
Pittsburgh.....	3	14	77.6	.....	.....	.....	.....	.....	10	4	.....
Great Lakes and Middle West...	4	18	73.3	.....	.....	.....	.....	.....	14	4	.....
Total.....	7	32	75.2	.....	.....	.....	.....	.....	14	14	4
1913.											
Pittsburgh.....	3	14	77.0	.....	.....	.....	.....	.....	6	4	4
Great Lakes and Middle West...	4	18	73.3	.....	.....	.....	.....	.....	14	4	.....
Total.....	7	32	74.9	.....	.....	.....	.....	.....	20	8	4

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—STANDARD RAIL MILLS—Continued.

ROLLERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Pittsburgh.....	3	8	72.0						8		
Great Lakes and Middle West...	3	6	72.5						4	2	
Total.....	6	14	72.2						12	2	
1913.											
Pittsburgh.....	3	8	72.8						7	1	
Great Lakes and Middle West...	3	6	72.5						4	2	
Total.....	6	14	72.6						11	3	

ROLLERS' HELPERS.

1912.											
Pittsburgh.....	1	4	72.9							4	
Great Lakes and Middle West...	1	2	72.0						2		
Total.....	2	6	72.6						2	4	
1913.											
Pittsburgh.....	1	4	74.0						1	3	
Great Lakes and Middle West...	1	2	72.0						2		
Total.....	2	6	73.3						3	3	

TABLE LEVER MEN.

1912.											
Pittsburgh.....	2	16	73.5						14		2
Great Lakes and Middle West...	4	64	65.5		18				46		
Total.....	6	80	67.1		18				60		2
1913.											
Pittsburgh.....	2	16	73.5						14		2
Great Lakes and Middle West...	4	64	65.5		18				46		
Total.....	6	80	67.1		18				60		2

TABLE MEN.

1912.											
Pittsburgh.....	2	12	72.0						12		
Great Lakes and Middle West...	3	18	72.0						18		
Total.....	5	30	72.0						30		
1913.											
Pittsburgh.....	2	12	72.0						12		
Great Lakes and Middle West...	3	18	72.0						18		
Total.....	5	30	72.0						30		

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—STANDARD RAIL MILLS—Continued.

GUIDE SETTERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—						
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84
1912.										
Pittsburgh.....	2	12	72.5						6	6
Great Lakes and Middle West.....	2	5	58.2		3				2	
Total.....	4	17	68.3		3				8	6
1913.										
Pittsburgh.....	2	12	73.8						6	6
Great Lakes and Middle West.....	2	5	58.2		3				2	
Total.....	4	17	69.2		3				8	6

HOT-SAW MEN.

1912.										
Pittsburgh.....	3	6	72.0						6	
Great Lakes and Middle West.....	4	14	72.0						14	
Total.....	7	20	72.0						20	
1913.										
Pittsburgh.....	3	6	72.0						6	
Great Lakes and Middle West.....	4	14	72.0						14	
Total.....	7	20	72.0						20	

HOT-SAW MEN'S HELPERS.

1912.										
Pittsburgh.....	3	20	72.2						12	8
Great Lakes and Middle West.....	4	35	72.0						35	
Total.....	7	55	72.1						47	8
1913.										
Pittsburgh.....	3	22	72.2						14	8
Great Lakes and Middle West.....	4	37	72.0						37	
Total.....	7	59	72.1						51	8

HOTBED LEVER MEN.

1912.										
Pittsburgh.....	3	16	72.3						8	8
Great Lakes and Middle West.....	4	19	72.0						19	
Total.....	7	35	72.1						27	8
1913.										
Pittsburgh.....	3	16	72.3						8	8
Great Lakes and Middle West.....	4	20	72.0						20	
Total.....	7	36	72.1						28	8

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—STANDARD RAIL MILLS—
Continued.

HOTBED MEN.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—						
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84
1912.										
Pittsburgh.....	3	16	72.0	.....	.....	.....	.....	.....	16	.....
Great Lakes and Middle West...	4	30	72.0	.....	.....	.....	.....	.....	30	.....
Total.....	7	46	72.0	.....	.....	.....	.....	.....	46	.....
1913.										
Pittsburgh.....	3	18	72.0	.....	.....	.....	.....	.....	18	.....
Great Lakes and Middle West...	4	30	72.0	.....	.....	.....	.....	.....	30	.....
Total.....	7	48	72.0	.....	.....	.....	.....	.....	48	.....

STRAIGHTENERS, GAG PRESS.

1912.										
Pittsburgh.....	3	40	57.6	24	.....	.....	.....	.....	16	.....
Great Lakes and Middle West...	4	70	60.0	32	.....	.....	6	.....	32	.....
Total.....	7	110	59.1	56	.....	.....	6	.....	48	.....
1913.										
Pittsburgh.....	3	40	57.6	24	.....	.....	.....	.....	16	.....
Great Lakes and Middle West...	4	61	60.2	27	.....	.....	6	.....	28	.....
Total.....	7	101	59.2	51	.....	.....	6	.....	44	.....

STRAIGHTENERS' HELPERS.

1912.										
Pittsburgh.....	3	41	72.0	.....	.....	.....	.....	.....	41	.....
Great Lakes and Middle West...	4	105	69.5	.....	.....	.....	22	.....	83	.....
Total.....	7	146	70.2	.....	.....	.....	22	.....	124	.....
1913.										
Pittsburgh.....	3	36	72.0	.....	.....	.....	.....	.....	36	.....
Great Lakes and Middle West...	4	95	69.2	.....	.....	.....	22	.....	73	.....
Total.....	7	131	70.0	.....	.....	.....	22	.....	109	.....

CHIPPERS.

1912.										
Pittsburgh.....	3	35	72.0	.....	.....	.....	.....	.....	35	.....
Great Lakes and Middle West...	4	78	69.4	.....	.....	.....	2	20	56	.....
Total.....	7	113	70.2	.....	.....	.....	2	20	91	.....
1913.										
Pittsburgh.....	3	35	72.0	.....	.....	.....	.....	.....	35	.....
Great Lakes and Middle West...	4	68	69.0	.....	.....	.....	14	4	50	.....
Total.....	7	103	70.0	.....	.....	.....	14	4	85	.....

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—STANDARD RAIL MILLS—Continued.

DRILLERS AND PUNCHERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Pittsburgh.....	3	78	72.0						78		
Great Lakes and Middle West...	4	125	69.5					34	91		
Total.....	7	203	70.5					34	169		
1913.											
Pittsburgh.....	3	78	72.0						78		
Great Lakes and Middle West...	4	101	69.4				19	4	78		
Total.....	7	179	70.5				19	4	156		

COLD-SAW MEN.

1912.											
Pittsburgh.....	3	9	79.6						1	4	4
Great Lakes and Middle West...	3	13	66.5					8	5		
Total.....	6	22	71.8					8	6	4	4
1913.											
Pittsburgh.....	3	10	80.0						1	4	5
Great Lakes and Middle West...	3	13	65.5					8	5		
Total.....	6	23	72.3					8	6	4	5

COLD-SAW MEN'S HELPERS.

1912.											
Pittsburgh.....	3	29	75.3						21		8
Great Lakes and Middle West...	4	25	71.0				2		23		
Total.....	7	54	73.3				2		44		8
1913.											
Pittsburgh.....	3	26	75.7						18		8
Great Lakes and Middle West...	4	22	70.9				2		20		
Total.....	7	48	73.5				2		38		8

INSPECTORS.

1912.											
Pittsburgh.....	3	22	72.0						22		
Great Lakes and Middle West...	4	52	70.5				3	6	43		
Total.....	7	74	70.9				3	6	65		
1913.											
Pittsburgh.....	3	19	72.0						19		
Great Lakes and Middle West...	4	54	70.0				5	7	42		
Total.....	7	73	70.5				5	7	61		

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—STANDARD RAIL MILLS—
Concluded.

LABORERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Pittsburgh.....	3	95	70.9	.....	.....	.....	11	.....	82	.....	2
Great Lakes and Middle West...	4	232	70.0	.....	.....	.....	10	46	175	.....	1
Total.....	7	327	70.2	.....	.....	.....	21	46	257	.....	3
1913.											
Pittsburgh.....	3	113	71.3	.....	.....	.....	9	.....	102	.....	2
Great Lakes and Middle West...	4	264	70.2	.....	.....	.....	19	37	207	.....	1
Total.....	7	377	70.5	.....	.....	.....	28	37	309	.....	3

BAR MILLS.

SUMMARY.

Summary figures relating to the bar-mill department are given with figures for other departments of the iron and steel industry in the introductory summary on pages 5 to 15. An explanation of the scope of the investigation and of the methods employed is given on pages 15 to 23.

Briefly stated, in 1913 the average rate of wages or earnings per hour of employees in the principal productive occupations in bar mills was from 7.8 per cent to 21.7 per cent higher than in any one of the six years preceding and, despite the fact that the average full-time hours were 1.6 per cent lower than at the beginning of the seven-year period, this very marked increase in rates of wages was so reflected in full-time earnings per week that the average earnings in 1913 were from 6.6 per cent to 20.5 per cent higher than in any one of the six years preceding.

The most significant facts concerning the several bar-mill occupations which are covered in this section of the report are summarized in the table following. Data are presented for each year from 1907 to 1913, inclusive, the figures for identical plants being grouped together. The data for 1913 represents 4,320 bar-mill employees in the 18 occupations covered, and were obtained from 26 plants, for 64 separate mills of various sizes from 8 to 18 inches, inclusive.

The bar mills considered in this report are with few exceptions hand-operated mills—the exceptions being certain mills using a combination of continuous rolls and rolls in which the material is handled by men.

Referring to the first occupation, laborers, direct comparison can be made of data for 10 identical plants from 1907 to 1910, 15 for 1910 and 1911, 17 for 1911 and 1912, and 21 for 1912 and 1913. The first line of the table shows that in 1907 the 10 bar mills for which reports were obtained employed 296 laborers whose average full-time hours of work were 68.3 per week. For 17.5 per cent of the 296 laborers the full-time hours per week were over 48 and not more than 60; for 47.3 per cent, over 60 and under 72; for 25 per cent, 72 hours; and for 10.1 per cent, over 72 hours. The average rate of wages or earnings per hour of laborers in the year considered (1907) was \$0.153. Of the total number, 9.1 per cent received under 14 cents per hour; 58.4 per cent, 14 and under 16 cents; and 32.4 per cent, 16 and under 18 cents per hour. The average full-time weekly

earnings were \$10.44. The other lines of the table may be read in the same manner.

Referring to the last column of the table, it is seen that in 10 identical plants the average full-time weekly earnings of laborers were \$10.44 in 1907, \$9.93 in 1908, \$10.17 in 1909, and \$10.81 in 1910. While the average full-time weekly earnings in 1910 in 10 plants were \$10.81, in 15 plants in the same year the average was \$10.86. In the 15 plants there was a decrease from \$10.86 in 1910 to \$10.59 in 1911. The difference between \$10.86 and \$10.59 measures the change from 1910 to 1911. It would not be a proper comparison, however, to state that earnings decreased from \$10.81 in 1910 to \$10.59 in 1911 because of the change in the number of plants and the difference known to exist in the averages for 1910 for the two groups of plants. In 17 plants there was an increase from \$10.40 in 1911 to \$10.52 in 1912, and in 21 plants an increase from \$10.38 in 1912 to \$11.51 in 1913. The other items of the table should be studied with like care.

Comparing the average full-time weekly earnings for 1913 of the several occupations, it is seen that the lowest average was that of laborers, which was \$11.51. The averages for 4 other occupations were only slightly higher, but the averages for the remaining 13 occupations were from 30 per cent to over 400 per cent higher, the highest being that of rollers, which was \$60.71.

In this table occupations are grouped according to the wages paid, beginning with the lowest-paid group, and the occupations in each group are presented in alphabetical order.

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1907 TO 1913—BAR MILLS.

[The figures for each group of years are for identical plants.]

Occupation, and num- ber of plants.	Year.	Number of em- ploy- ees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employ- ees whose earnings per hour were—					Average full-time weekly earnings.
				48 and under.	Over 48 and in- clud- ing 60	Over 60 and under 72	72	Over 72		Under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	
Laborers:															
10 plants.....	1907	296	68.3	.....	17.5	47.3	25.0	10.1	\$0.153	9.1	58.4	32.4	.....	.....	\$10.44
	1908	227	64.8	.....	42.3	47.6	7.9	2.2	.153	17.2	39.6	43.2	.....	.....	9.93
	1909	324	67.8	.....	24.1	42.3	27.2	6.5	.150	15.4	56.2	28.4	.....	.....	10.17
	1910	424	67.2	.....	30.2	26.7	41.5	1.7	.161	9.4	7.3	83.3	.....	.....	10.81
15 plants.....	1910	511	67.8	.....	31.0	25.0	35.8	8.2	.160	10.0	13.7	76.3	.....	.....	10.86
	1911	355	66.0	.....	29.2	49.3	19.7	1.7	.160	12.4	7.3	80.3	.....	.....	10.59
17 plants.....	1911	390	65.5	.....	35.4	44.9	18.2	1.5	.159	11.3	15.6	73.1	.....	.....	10.40
	1912	424	65.9	.....	30.2	48.1	19.8	1.9	.159	10.4	12.7	76.9	.....	.....	10.52
21 plants.....	1912	536	65.0	.....	37.4	42.7	18.3	1.5	.160	14.4	11.2	71.8	2.6	.....	10.38
	1913	705	64.3	.....	45.7	44.0	3.5	6.8	.178	1.1	7.4	48.7	33.6	9.2	11.51

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1907 TO 1913—BAR MILLS—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				48 and under.	Over 48 and including 60	Over 60 and under 72	72	Over 72		Under 16 cts.	16 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 cts. and over.	
Bundlers:															
5 plants.....	1907	41	66.9			75.6	24.4		\$0.202		56.1	39.0	2.4	2.4	\$13.53
	1908	41	66.9			75.6	24.4		.174	34.2	56.1	7.3	2.4		11.68
	1909	41	66.8			100.0			.186	9.8	75.6	14.6			12.42
	1910	41	67.1			100.0			.213	4.9	26.9	63.4	4.9		14.23
6 plants.....	1910	77	66.1			100.0			.207	2.6	42.9	51.9	2.6		13.69
	1911	81	63.5		44.4	55.6			.193	1.2	59.3	37.0	2.5		12.28
7 plants.....	1911	131	62.0		65.6	34.4			.197	8.3	36.6	61.1	1.5		12.20
	1912	132	62.0		65.2	34.8			.193		80.3	18.2	1.5		11.94
7 plants.....	1912	129	61.6		70.6	29.5			.194		79.9	18.6	1.6		11.96
	1913	136	61.4		72.0	27.9			.228		1.5	88.2	8.8	1.5	14.05
Chargers and helpers:															
12 plants.....	1907	104	65.5		14.4	68.3	15.4	1.9	.173	48.1	36.5	9.6	4.8	1.0	11.34
	1908	102	65.6		14.7	65.7	19.6		.161	59.8	35.3	4.9			10.56
	1909	107	65.9		13.0	74.8	7.5	4.7	.161	62.7	29.9	7.5			10.60
	1910	110	66.3		12.7	78.2	9.1		.181	21.8	61.9	9.1	7.3		11.87
18 plants.....	1910	179	65.3	6.7	14.5	59.2	19.6		.192	13.4	59.2	14.0	13.4		12.40
	1911	177	65.1	6.8	14.6	59.9	18.6		.185	21.5	52.6	21.0	3.4	1.1	12.02
19 plants.....	1911	185	64.8	6.5	16.2	59.5	17.8		.184	22.7	52.5	20.5	3.2	1.1	11.90
	1912	182	65.0	4.9	15.9	61.0	18.1		.192	12.6	57.7	15.4	13.2	1.1	12.45
19 plants.....	1912	181	64.3	6.6	24.9	48.6	19.9		.199	12.2	49.7	22.1	14.9	1.1	12.72
	1913	185	63.7		32.0	59.5	8.6		.224	5.4	42.7	35.1	12.4	9.1	14.17
Hotbed men:															
15 plants.....	1907	302	63.3	4.0	34.4	43.0	18.5		.189	41.8	26.2	19.9	5.6	6.6	11.98
	1908	299	63.2	4.0	40.5	34.8	20.7		.174	47.8	33.8	11.7	4.3	2.3	10.93
	1909	286	63.3	4.2	37.1	53.8	4.9		.180	42.7	30.0	18.9	3.1	5.2	11.00
	1910	302	63.3	5.0	34.5	54.0	6.6		.208	19.9	40.7	19.2	11.9	8.3	13.02
25 plants.....	1910	500	62.9	11.4	30.2	43.2	11.8	3.4	.200	26.0	39.6	16.6	11.4	6.4	12.46
	1911	434	62.0	12.4	30.2	47.7	9.7		.189	29.5	42.4	15.0	6.2	6.9	11.69
26 plants.....	1911	450	61.9	12.0	30.4	48.2	9.3		.188	31.1	41.8	14.4	6.0	6.6	11.61
	1912	461	61.7	11.7	31.6	45.3	11.3		.192	21.5	43.2	21.9	8.2	5.2	11.80
26 plants.....	1912	455	61.5	11.9	35.4	42.6	10.1		.192	19.5	46.3	21.8	7.5	4.8	11.73
	1913	467	60.9	2.6	42.5	49.9	5.1		.221	8.9	34.1	36.0	13.1	7.9	13.43
Roll engineers:															
13 plants.....	1907	58	72.3			53.4	8.6	37.9	.226		15.5	56.9	27.6		16.29
	1908	56	71.4			50.0	17.9	32.2	.221		17.8	62.5	19.6		15.76
	1909	56	71.5			53.6	10.7	35.7	.217	7.1	21.4	53.6	17.9		15.52
	1910	58	71.7			55.2	6.9	38.0	.230		13.8	62.1	24.1		16.53
22 plants.....	1910	99	72.0		3.0	40.4	26.3	30.3	.229		14.1	59.6	26.3		16.46
	1911	95	70.4		3.2	56.8	13.7	26.3	.228		14.7	62.1	23.2		16.07
	1912	97	70.0		5.1	52.6	12.4	29.9	.229		13.4	64.9	21.6		16.05
20 plants.....	1912	93	70.1		5.4	52.7	12.9	29.1	.228		14.0	65.6	20.4		16.02
	1913	97	70.5		8.3	40.2	9.3	42.3	.249		4.1	30.9	58.8	6.2	17.56
Shearmen's helpers:															
15 plants.....	1907	201	65.9		16.4	62.2	20.4	1.0	.174	48.7	30.4	13.9	6.0	1.0	11.46
	1908	172	66.2		19.8	58.7	16.9	4.7	.168	54.0	30.8	12.2	1.7	1.2	11.07
	1909	185	67.3		20.6	59.5	4.3	15.7	.169	55.2	26.5	14.6	2.7	1.1	11.32
	1910	215	65.3		23.2	65.1	11.6		.184	31.2	38.1	22.3	7.4	.9	12.00
23 plants.....	1910	355	64.7	12.7	15.2	44.5	21.7	5.9	.187	27.0	38.9	24.5	5.6	3.9	12.02
	1911	359	63.8	13.4	18.1	50.4	18.1		.178	28.4	49.6	15.9	5.0	1.2	11.28
	1912	358	63.9	13.4	18.8	46.4	18.2	3.4	.184	17.9	47.5	26.3	7.3	1.1	11.74
22 plants.....	1912	337	63.4	15.1	20.2	46.9	14.2	3.6	.183	18.4	49.2	23.7	8.0	.6	11.52
	1913	316	62.8		34.2	61.4	1.3	3.2	.214	11.4	34.4	35.8	7.0	11.4	13.30

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES
PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE
PRINCIPAL OCCUPATIONS, 1907 TO 1913—BAR MILLS—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				48 and under.	Over 48 and including 60.	Over 60 and under 72.	72	Over 72.		Under 16 cts.	16 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 cts. and over.	
Stockers:															
8 plants.....	1907	93	64.4	.....	17.2	69.9	8.6	4.3	\$0.178	8.7	67.7	23.7	.....	.....	\$11.43
	1908	90	64.1	.....	20.0	65.6	14.4	.....	.167	28.9	62.2	8.9	.....	.....	10.72
	1909	88	64.2	.....	18.2	78.4	3.4	.....	.168	39.8	46.6	11.4	2.3	.....	10.79
	1910	87	64.3	.....	17.2	79.3	3.4	.....	.190	8.0	59.8	32.2	.....	.....	12.17
13 plants.....	1910	170	59.0	15.9	28.8	50.6	4.7	.....	.250	4.1	30.6	30.0	13.5	21.8	14.24
	1911	164	59.6	16.5	37.2	42.7	3.7	.....	.230	3.6	36.6	26.8	11.6	21.3	13.41
15 plants.....	1911	211	60.9	12.8	40.4	34.1	12.8	.....	.217	2.8	48.8	22.7	9.0	16.6	12.94
	1912	217	60.9	12.4	43.7	30.9	12.9	.....	.231	3.2	36.4	26.3	17.1	17.1	13.79
17 plants.....	1912	215	60.9	12.6	40.4	34.0	13.0	.....	.232	3.2	34.8	26.5	18.1	17.2	13.88
	1913	226	60.6	.....	51.8	45.1	3.1	.....	.253	1.3	26.5	26.5	21.2	24.3	15.12
										Un-der 20 cts.	20 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 cts. and over.	
Drag downs:															
11 plants.....	1907	86	64.4	.....	18.6	60.5	18.6	2.3	.271	26.8	38.4	23.3	7.0	4.7	17.31
	1908	82	63.9	.....	24.4	52.4	23.2	.....	.246	40.3	34.2	18.3	.....	7.3	15.58
	1909	83	64.0	.....	24.1	69.9	3.6	2.4	.250	32.5	41.0	21.7	4.8	.....	15.93
	1910	89	64.0	.....	22.5	69.7	3.4	4.5	.286	29.1	34.8	27.0	4.5	4.5	18.19
19 plants.....	1910	132	65.1	.....	21.2	56.8	18.9	3.0	.269	25.8	46.3	22.0	3.0	3.0	17.44
	1911	123	64.9	.....	22.8	55.3	20.3	1.6	.262	18.8	62.6	12.2	3.3	3.3	16.88
20 plants.....	1911	127	64.7	.....	23.6	55.1	19.7	1.6	.262	18.0	63.7	11.8	3.1	3.1	16.78
	1912	130	64.3	.....	25.4	53.8	19.2	1.5	.253	27.7	44.6	21.5	6.2	.....	16.12
20 plants.....	1912	121	63.8	.....	36.3	44.6	17.4	1.7	.251	24.9	52.0	19.8	3.3	.....	15.81
	1913	124	63.1	.....	36.3	54.8	7.3	1.6	.281	11.3	51.6	28.2	8.9	.....	17.57
Finishers:															
10 plants.....	1907	65	65.9	.....	26.1	47.7	26.2	.....	.309	9.2	47.7	18.5	20.0	4.6	20.45
	1908	63	66.4	.....	23.8	49.2	27.0	.....	.279	11.2	60.3	19.0	9.5	.....	18.53
	1909	63	66.2	.....	22.2	68.3	9.5	.....	.300	8.0	49.2	27.0	15.9	.....	19.85
	1910	64	66.1	.....	20.3	75.0	4.7	.....	.329	4.7	34.4	39.1	15.6	6.3	21.80
17 plants.....	1910	111	64.0	13.5	16.2	55.0	15.3	.....	.323	4.5	42.3	32.4	14.4	6.3	20.48
	1911	110	63.4	13.6	22.8	45.5	18.2	.....	.309	6.3	41.8	36.4	12.7	2.7	19.50
19 plants.....	1911	121	62.8	12.4	26.4	44.6	16.5	.....	.313	7.4	38.8	34.7	16.5	2.5	19.60
	1912	126	62.5	11.9	28.6	43.7	15.9	.....	.319	7.2	46.8	27.0	11.9	7.2	19.92
21 plants.....	1912	137	62.0	10.9	37.9	38.0	13.1	.....	.328	6.5	41.6	31.4	10.9	9.5	20.29
	1913	134	61.8	.....	50.1	42.5	7.5	.....	.363	5.2	27.6	36.6	14.2	16.4	22.36
Heaters' helpers:															
14 plants.....	1907	167	65.3	1.8	14.4	64.7	15.6	3.6	.246	44.4	34.8	13.8	4.8	2.4	15.77
	1908	153	65.1	2.0	18.3	56.2	20.9	2.6	.227	54.3	28.8	12.4	3.3	1.3	14.50
	1909	151	65.0	2.0	18.5	74.2	1.3	4.0	.234	46.4	39.1	10.6	2.6	1.3	14.87
	1910	166	65.2	1.8	16.8	74.7	1.8	4.8	.262	24.7	51.8	10.8	6.6	6.0	16.70
24 plants.....	1910	295	62.6	16.3	18.3	52.2	10.5	2.8	.273	20.0	46.8	25.1	3.7	4.4	16.77
	1911	281	62.5	17.1	16.1	53.4	10.7	2.8	.262	22.0	50.5	20.3	3.6	3.6	16.05
25 plants.....	1911	293	62.7	16.4	15.4	55.3	10.2	2.7	.259	23.2	50.1	19.8	3.4	3.4	15.94
	1912	319	62.2	14.1	24.8	50.5	9.4	1.3	.200	23.2	49.9	20.1	5.0	1.9	16.01
24 plants.....	1912	318	61.9	14.2	31.1	47.2	6.3	1.3	.251	25.8	50.9	20.8	2.5	.....	15.41
	1913	324	62.0	.9	44.4	50.3	3.1	1.2	.273	16.7	53.1	23.8	5.9	.6	16.77

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1907 TO 1913—BAR MILLS—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—						Average rate of wages per hour.	Per cent of employees whose earnings per hour were—						Average full-time weekly earnings.
				48 and under.	Over 48 and including 60.	Over 60 and under 72.	72.	Over 72.	Under 20 cts.		20 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 cts. and over.			
Hook ups: 12 plants.....	1907	92	63.9	9.8	12.0	52.2	26.1	.....	\$0.268	18.4	59.8	19.6	2.2	.....	\$17.30		
	1908	84	65.3	3.6	21.5	41.7	33.3	.....	.225	39.4	41.6	19.0	.....	.....	14.70		
	1909	82	65.7	3.7	14.6	57.3	24.4	.....	.241	21.9	61.0	17.1	.....	.....	15.82		
	1910	93	65.6	.....	17.3	63.4	19.4	.....	.303	14.0	28.0	38.7	17.2	2.2	20.06		
20 plants.....	1910	174	63.2	15.5	17.2	42.5	24.7	.....	.272	26.4	37.4	25.9	9.2	1.1	17.13		
	1911	144	63.4	14.6	16.8	43.8	25.0	.....	.251	37.5	28.5	31.2	1.4	1.4	15.81		
21 plants.....	1911	154	63.0	13.6	19.4	43.5	23.4	.....	.250	37.0	31.1	29.2	1.3	1.3	15.66		
	1912	167	62.2	12.6	25.8	40.7	21.0	.....	.249	34.2	44.3	16.8	4.8	.....	15.56		
22 plants.....	1912	177	61.9	11.9	32.2	36.2	19.8	.....	.254	32.2	42.9	20.3	4.5	.....	15.74		
	1913	175	61.4	1.7	42.2	42.9	13.1	.....	.300	5.2	40.6	40.0	14.3	.....	18.27		
Roll hands, other: 9 plants.....	1907	97	66.8	6.2	8.3	40.2	45.4	.....	.278	37.1	20.6	33.0	4.1	5.2	18.53		
	1908	94	67.0	6.4	8.5	40.4	44.7	.....	.255	36.2	39.3	11.7	8.5	4.3	16.97		
	1909	94	66.8	6.4	8.5	70.2	14.9	.....	.266	37.2	23.7	214.9	5.3	5.4	17.65		
	1910	95	66.7	6.3	8.5	70.5	14.7	.....	.315	21.0	25.2	35.8	7.4	10.5	21.06		
18 plants.....	1910	180	62.8	21.7	13.9	44.4	20.0	.....	.295	28.3	25.5	28.3	12.2	5.5	18.35		
	1911	177	62.5	22.0	15.2	42.4	20.3	.....	.273	28.7	41.2	18.6	8.5	2.8	16.97		
	1912	176	62.7	20.5	15.4	43.8	20.5	.....	.287	23.9	41.4	23.3	6.2	5.1	17.97		
18 plants.....	1912	170	62.2	21.2	17.1	42.9	18.8	.....	.284	23.7	42.9	24.1	4.1	5.3	17.56		
	1913	168	61.8	3.6	38.2	47.6	10.7	.....	.320	20.3	20.8	40.5	8.9	9.5	19.71		
Shearmen: 15 plants.....	1907	94	64.8	.....	30.9	51.1	18.1	.....	.249	40.5	34.1	21.3	.....	4.2	16.20		
	1908	92	65.1	.....	33.7	45.7	20.7	.....	.216	52.2	24.0	2.6	6.5	1.1	14.10		
	1909	93	65.3	.....	33.4	59.1	3.2	4.3	.225	49.5	38.7	9.7	1.1	1.1	14.72		
	1910	97	65.0	.....	32.0	61.9	6.2	.....	.247	42.2	33.0	20.6	3.1	1.0	16.11		
25 plants.....	1910	156	63.3	9.6	30.1	46.2	10.3	3.8	.264	35.9	35.9	19.9	5.8	2.5	16.40		
	1911	151	62.5	9.9	34.4	45.0	10.6	.....	.234	45.1	31.8	13.2	6.6	3.3	15.55		
	1912	154	62.4	9.7	36.3	40.9	11.7	1.3	.254	40.2	36.3	16.2	3.9	3.2	15.59		
24 plants.....	1912	156	62.4	9.6	34.7	42.9	11.5	1.3	.251	40.4	37.8	14.7	3.8	3.2	15.40		
	1913	159	62.0	.....	44.1	52.2	2.5	1.3	.287	14.5	55.4	13.2	11.9	5.0	17.54		
Stranders: 13 plants.....	1907	175	59.5	22.3	28.5	34.3	14.9	.....	.334	6.8	37.1	34.3	8.0	13.7	19.45		
	1908	174	59.7	22.4	28.7	31.6	17.2	.....	.277	12.0	48.3	39.7	.....	.....	16.25		
	1909	174	59.7	22.4	28.7	42.0	6.9	.....	.297	5.2	51.7	36.2	6.9	.....	17.34		
	1910	180	59.7	21.7	29.9	41.7	6.7	.....	.344	7.7	36.1	35.6	8.9	11.7	20.06		
21 plants.....	1910	272	60.6	17.6	30.2	39.7	12.5	.....	.301	13.6	46.7	26.1	5.9	7.7	17.85		
	1911	254	59.9	18.9	32.3	35.4	13.4	.....	.268	25.6	43.7	20.1	10.6	.....	15.83		
22 plants.....	1911	262	59.8	18.3	34.3	34.4	13.0	.....	.272	24.8	42.4	19.5	13.4	.....	16.03		
	1912	266	59.6	18.0	36.5	32.7	12.8	.....	.283	22.7	44.7	18.0	6.4	8.3	16.62		
20 plants.....	1912	252	59.2	19.0	42.8	27.0	11.1	.....	.284	22.2	46.4	15.9	6.7	8.7	16.56		
	1913	246	58.7	15.9	45.1	34.1	4.9	.....	.328	9.3	39.8	27.2	10.6	13.0	19.07		
											Under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 cts. and over.		
Catchers: 11 plants.....	1907	69	62.5	.....	43.4	36.2	20.3	.....	.442	8.7	40.6	18.8	26.1	5.8	27.68		
	1908	70	62.0	.....	45.7	34.3	20.0	.....	.381	21.5	44.3	15.7	14.3	4.3	23.57		
	1909	70	61.9	.....	45.7	54.3	.....	.....	.400	12.8	52.9	14.3	14.3	5.7	24.93		
	1910	73	62.0	.....	42.4	57.5	.....	.....	.452	6.9	27.4	38.4	21.9	5.5	28.17		

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES
PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE
PRINCIPAL OCCUPATIONS, 1907 TO 1913—BAR MILLS—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				48 and under.	Over 48 and including 60.	Over 60 and under 72.	72.	Over 72.		Under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 cts. and over.	
Catchers—Concluded. 20 plants.....	1910 1911 1912	115 111 110	60.2 59.9 59.7	13.0 13.5 13.6	40.0 38.7 39.1	40.0 40.5 40.0	7.0 7.2 7.3	..... ..... .....	\$0.419 .392 .399	17.4 18.0 22.8	27.8 49.5 33.6	33.0 18.0 29.1	18.3 10.8 5.5	3.5 3.6 9.1	\$25.45 23.70 23.92
20 plants.....	1912 1913	108 110	59.4 59.4	13.9	44.5 58.2	36.1 40.0	5.6 1.8	..... .....	.415 .462	15.8 12.7	34.3 19.1	33.5 32.7	5.6 25.5	9.3 10.0	24.81 27.67
Roughers: 15 plants.....	1907 1908 1909 1910	252 242 243 257	61.5 62.5 62.4 62.3	13.5 9.9 9.9 9.7	25.0 27.7 27.6 27.7	44.0 40.1 56.8 56.4	17.5 22.3 5.8 6.2	..... ..... ..... .....	.434 .343 .368 .407	17.4 34.3 23.1 21.7	36.5 31.4 45.7 28.0	22.2 31.0 21.8 27.6	15.1 3.3 9.5 20.2	8.7 21.35 22.72 2.3	26.28 21.35 22.72 25.21
25 plants.....	1910 1911	425 395	61.0 60.6	17.2 18.2	27.1 26.5	46.4 45.6	9.4 9.6	..... .....	.402 .376	21.4 22.2	29.9 44.1	30.1 20.5	17.2 12.2	1.4 1.0	24.51 22.65
26 plants.....	1911 1912	403 408	60.5 60.2	17.9 17.6	27.1 28.4	45.7 44.9	9.4 9.1	..... .....	.377 .389	21.9 23.5	43.7 29.9	21.6 28.9	11.9 14.7	1.0 2.9	22.68 23.36
26 plants.....	1912 1913	405 407	59.9 59.8	17.8 6.1	34.9 47.7	39.3 42.5	7.7 3.7	..... .....	.393 .436	24.2 13.0	28.1 23.8	27.9 35.6	16.8 22.4	3.0 5.2	23.42 26.00

EARNINGS OF ROLLING CREWS, BY SIZE OF MILLS.

In order to compare the earnings of the various members of the rolling crews in the mills of different sizes, the following table, showing simply the average earnings per hour in 1913, has been prepared.

Although the exertion increases with the size of the mill, skill and experience are such large factors that the increase in wages in any one of the occupations is by no means proportionate to the increase in the size of the mill and the weight of the product. In the case of rollers, it will be noticed that there is no connection between the size of the mill and the average earnings per hour. Whatever difference does exist is due entirely to the skill and experience of the particular roller and to the custom of the individual establishment in which he is employed.

AVERAGE EARNINGS PER HOUR OF MEMBERS OF ROLLING CREWS, 1913—BAR MILLS.

Occupation.	Size of mills.							Total, all sizes.
	8-inch.	9-inch.	10-inch.	12-inch.	13, 14, and 15 inch.	16-inch.	18-inch.	
Rollers.....	\$1.070	\$0.932	\$1.132	\$0.961	\$0.676	\$0.998	\$0.975	\$0.989
Roughers.....	.391	.484	.413	.447	.386	.435	.500	.436
Catchers.....	.400	.619	.484	.416	.461	.499	.463	.462
Stranders.....	.302	.293	.392	.319	.255	.523	.....	.328
Finishers.....	.354	.293	.427	.363	.345	.410	.414	.363
Hook ups.....	.....	.....	.....	.323	.263	.329	.281	.300
Roll hands, other....	.284	.275	.387	.304	.335	.408	.344	.320

Owing to changes in the number of plants reported from year to year, and the consequent differences in the averages for the overlapping year in two groups of plants, it is difficult to make a comparison of the actual data over a period of several years which will give an accurate measure of the changes throughout the period.

To aid in making such a comparison relative or index numbers have been computed from the averages of the preceding table for full-time hours per week, rates of wages per hour, and full-time weekly earnings, for each occupation from 1907 to 1913, inclusive, and are presented in the following table.

These relative or index numbers are simply percentages for which the data for 1913 are taken as the base, or 100 per cent. The relative for each year is the per cent that the average for that year is of the average for 1913. For example, the relative full-time weekly earnings of stockers in 1907 were 85.9 as compared with 100 in 1913; that is, the full-time weekly earnings of stockers in 1907 were 85.9 per cent of the full-time weekly earnings of this occupation in 1913. The method of computing relative numbers is explained on pages 21 to 23.

The table also shows for each occupation the per cent of increase or decrease in full-time hours per week, rates of wages per hour, and full-time weekly earnings in 1913 as compared with each specified

year preceding. Thus, the full-time weekly earnings of stockers in 1913 were 16.4 per cent higher than in 1907, 24.1 per cent higher than in 1908, 23.3 per cent higher than in 1909, 9.3 per cent higher than in 1910, 16.1 per cent higher than in 1911, and 8.9 per cent higher than in 1912.

In other columns of the table is shown the per cent of change in each year as compared with the year immediately preceding. Thus, the full-time weekly earnings of stockers were 6.2 per cent lower in 1908 than in 1907, 0.6 per cent higher in 1909 than in 1908, 12.8 per cent higher in 1910 than in 1909, 5.9 per cent lower in 1911 than in 1910, 6.6 per cent higher in 1912 than in 1911, and 8.9 per cent higher in 1913 than in 1912. The other occupations and items of the table can be studied in like manner. The percentages of increase and decrease are computed from the relative numbers.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—BAR MILLS.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (-) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (-) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (-) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Stockers:									
1907.....	99.6	+0.4	-----	87.7	+14.0	-----	85.9	+16.4	-----
1908.....	99.2	+ .8	-0.4	82.3	+21.5	- 6.2	80.6	+24.1	- 6.2
1909.....	99.3	+ .7	+ .1	82.8	+20.8	+ .6	81.1	+23.3	+ .6
1910.....	99.5	+ .5	+ .2	93.6	+ 6.8	+13.0	91.5	+ 9.3	+12.8
1911.....	100.5	- .5	+1.0	86.1	+16.1	- 8.0	86.1	+16.1	- 5.9
1912.....	100.5	- .5	(1)	91.7	+ 9.1	+ 6.5	91.8	+ 8.9	+ 6.6
1913.....	100.0	-----	- .5	100.0	-----	+ 9.1	100.0	-----	+ 8.9
Heaters:									
1907.....	100.7	- .7	-----	94.5	+ 5.8	-----	96.1	+ 4.1	-----
1908.....	100.7	- .7	(1)	86.9	+15.1	- 8.0	88.1	+13.5	- 8.3
1909.....	100.8	- .8	+ .1	90.8	+10.1	+ 4.5	92.3	+ 8.3	+ 4.8
1910.....	101.1	-1.1	+ .3	93.4	+ 7.1	+ 2.9	94.7	+ 5.6	+ 2.6
1911.....	100.6	- .6	- .5	94.3	+ 6.0	+ 1.0	95.4	+ 4.8	+ .7
1912.....	100.2	- .2	- .4	89.1	+12.2	- 5.5	89.3	+12.0	- 6.4
1913.....	100.0	-----	- .2	100.0	-----	+12.2	100.0	-----	+12.0
Heaters' helpers:									
1907.....	101.0	-1.0	-----	89.6	+11.6	-----	90.3	+10.7	-----
1908.....	100.6	- .6	- .4	82.7	+20.9	- 7.7	83.0	+20.5	- 8.1
1909.....	100.5	- .5	- .1	85.2	+17.4	+ 3.0	85.1	+17.5	+ 2.5
1910.....	100.8	- .8	+ .3	95.4	+ 4.8	+12.0	95.6	+ 4.6	+12.3
1911.....	100.6	- .6	- .2	91.6	+ 9.2	- 4.0	91.5	+ 9.3	- 4.3
1912.....	99.8	+ .2	- .8	91.9	+ 8.8	+ .3	91.9	+ 8.8	+ .4
1913.....	100.0	-----	+ .2	100.0	-----	+ 8.8	100.0	-----	+ 8.8
Chargers and helpers:									
1907.....	99.7	+ .3	-----	84.5	+18.3	-----	84.6	+18.2	-----
1908.....	99.9	+ .1	+ .2	78.6	+27.2	- 7.0	78.7	+27.1	- 7.0
1909.....	100.3	- .3	+ .4	78.6	+27.2	(1)	79.0	+26.6	+ .4
1910.....	100.9	- .9	+ .6	88.4	+13.1	+12.5	88.5	+13.0	+12.0
1911.....	100.6	- .6	- .3	85.1	+17.5	- 3.7	85.8	+16.6	- 3.1
1912.....	100.9	- .9	+ .3	88.8	+12.6	+ 4.3	89.8	+11.4	+ 4.7
1913.....	100.0	-----	- .9	100.0	-----	+12.6	100.0	-----	+11.4

1 No change.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—BAR MILLS—Continued.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Drag downs:									
1907.....	102.7	-2.6	-----	90.0	+11.1	-----	92.1	+ 8.6	-----
1908.....	101.9	-1.9	-0.8	81.7	+22.4	- 9.2	82.9	+20.6	-10.0
1909.....	102.0	-2.0	+ .1	83.0	+20.5	+ 1.6	84.7	+18.1	+ 2.2
1910.....	102.0	-2.0	(1)	95.0	+ 5.3	+14.5	96.8	+ 3.3	+14.3
1911.....	101.7	-1.7	- .3	92.5	+ 8.1	- 2.6	93.7	+ 6.7	- 3.2
1912.....	101.1	-1.1	- .6	89.3	+12.0	- 3.5	90.0	+11.1	- 3.9
1913.....	100.0	-----	-1.1	100.0	-----	+12.0	100.0	-----	+11.1
Roll engineers:									
1907.....	103.1	-3.0	-----	90.0	+11.1	-----	91.7	+ 9.1	-----
1908.....	101.8	-1.8	-1.3	88.0	+13.6	- 2.2	88.7	+12.7	- 3.3
1909.....	102.0	-2.0	+ .2	86.4	+15.7	- 1.8	87.4	+14.4	- 1.5
1910.....	102.3	-2.2	+ .3	91.6	+ 9.2	+ 6.0	93.0	+ 7.5	+ 6.4
1911.....	100.0	(1)	-2.2	91.2	+ 9.6	- .4	91.3	+ 9.5	- 1.8
1912.....	99.4	+ .6	- .6	91.6	+ 9.2	+ .4	91.2	+ 9.6	- .1
1913.....	100.0	-----	+ .6	100.0	-----	+ 9.2	100.0	-----	+ 9.6
Rollers:									
1907.....	101.8	-1.8	-----	93.5	+ 7.0	-----	95.7	+ 4.5	-----
1908.....	102.1	-2.1	+ .3	81.0	+23.5	-13.4	82.8	+20.8	-13.5
1909.....	101.8	-1.8	- .3	84.6	+18.2	+ 4.4	86.4	+15.7	+ 4.3
1910.....	101.3	-1.3	- .5	93.2	+ 7.3	+10.2	94.8	+ 5.5	+ 9.7
1911.....	100.6	- .6	- .7	88.6	+12.9	- 4.9	90.0	+11.1	- 5.1
1912.....	100.2	- .2	- .4	87.3	+14.5	- 1.5	88.3	+13.3	- 1.9
1913.....	100.0	-----	- .2	100.0	-----	+14.5	100.0	-----	+13.3
Roughers:									
1907.....	100.0	(1)	-----	99.6	+ .4	-----	98.7	+ 1.3	-----
1908.....	101.7	-1.7	+1.7	78.7	+27.1	-21.0	80.1	+24.8	-18.8
1909.....	101.5	-1.5	- .2	84.4	+18.5	+ 7.2	85.3	+17.2	+ 6.5
1910.....	101.3	-1.3	- .2	93.4	+ 7.1	+10.7	94.6	+ 5.7	+10.9
1911.....	100.7	- .7	- .6	87.4	+14.4	- 6.4	87.5	+14.3	- 7.5
1912.....	100.2	- .2	- .5	90.1	+11.0	+ 3.1	90.1	+11.0	+ 3.0
1913.....	100.0	-----	- .2	100.0	-----	+11.0	100.0	-----	+11.0
Catchers:									
1907.....	101.7	-1.7	-----	92.2	+ 8.5	-----	93.7	+ 6.7	-----
1908.....	102.1	- .8	- .9	79.5	+25.8	-13.8	79.8	+25.3	-14.8
1909.....	100.7	- .7	- .1	83.5	+19.8	+ 5.0	84.4	+18.5	+ 5.8
1910.....	100.8	- .8	+ .1	94.3	+ 6.0	+12.9	95.4	+ 4.8	+13.0
1911.....	100.3	- .3	- .5	88.3	+13.3	- 6.4	91.2	+ 9.6	- 4.4
1912.....	100.0	(1)	- .3	89.8	+11.4	+ 1.7	89.7	+11.5	- 1.6
1913.....	100.0	-----	(1)	100.0	-----	+11.4	100.0	-----	+11.5
Stranders:									
1907.....	102.0	-2.0	-----	90.7	+10.3	-----	91.6	+ 9.2	-----
1908.....	102.4	-2.3	+ .4	75.3	+32.8	-17.0	76.5	+30.7	-16.5
1909.....	102.4	-2.3	(1)	80.7	+23.9	+ 7.2	81.6	+22.5	+ 6.7
1910.....	102.4	-2.3	(1)	93.5	+ 7.0	+15.9	94.4	+ 5.9	+15.7
1911.....	101.2	-1.2	-1.2	83.2	+20.2	-11.0	83.8	+19.3	-11.2
1912.....	100.9	- .9	- .3	88.6	+15.5	+ 4.1	88.8	+15.2	+ 3.6
1913.....	100.0	-----	- .9	100.0	-----	+15.5	100.0	-----	+15.2
Finishers:									
1907.....	101.4	-1.4	-----	87.0	+14.9	-----	88.0	+13.6	-----
1908.....	102.2	-2.2	+ .8	78.6	+27.2	- 9.7	79.7	+25.5	- 9.4
1909.....	101.9	-1.9	- .3	84.5	+18.3	+ 7.5	85.4	+17.1	+ 7.2
1910.....	101.8	-1.8	- .1	92.7	+ 7.9	+ 9.7	93.8	+ 6.6	+ 9.8
1911.....	100.8	- .8	-1.0	88.7	+12.7	- 4.3	89.3	+12.0	- 4.8
1912.....	100.3	- .3	- .5	90.4	+10.6	+ 1.9	90.7	+10.3	+ 1.6
1913.....	100.0	-----	- .3	100.0	-----	+10.6	100.0	-----	+10.3

¹ No change.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—BAR MILLS—Concluded.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Hook ups:									
1907.....	99.1	+0.9	.....	81.5	+22.7	.....	81.0	+23.5	.....
1908.....	101.3	-1.3	+2.2	68.4	+46.2	-16.1	68.8	+45.3	-15.1
1909.....	101.9	-1.9	+6	73.3	+36.4	+7.2	74.1	+35.0	+7.7
1910.....	101.8	-1.8	-1	92.1	+8.6	+25.6	93.9	+6.5	+26.7
1911.....	102.1	-2.1	+3	85.0	+17.6	-7.7	86.7	+15.3	-7.7
1912.....	100.8	-8	-1.3	84.7	+18.1	-4	86.2	+16.0	-6
1913.....	100.0	.....	-8	100.0	.....	+18.1	100.0	.....	+16.0
Roll hands, other:									
1907.....	101.0	-1.0	.....	80.5	+24.2	.....	80.0	+25.0	.....
1908.....	101.3	-1.3	+3	73.8	+35.5	-8.3	73.3	+36.4	-8.4
1909.....	101.0	-1.0	-3	77.0	+29.9	+4.3	76.2	+31.2	+4.0
1910.....	100.8	-8	-2	91.2	+9.6	+18.4	91.0	+9.9	+19.4
1911.....	100.3	-3	-5	84.4	+18.5	-7.5	84.1	+18.9	-7.6
1912.....	100.6	-6	+3	88.8	+12.6	+5.2	89.1	+12.2	+5.9
1913.....	100.0	.....	-6	100.0	.....	+12.6	100.0	.....	+12.2
Hotbed men:									
1907.....	102.8	-2.7	.....	81.8	+22.2	.....	84.3	+18.6	.....
1908.....	102.6	-2.5	-2	75.3	+32.8	-7.9	76.9	+30.0	-8.8
1909.....	102.8	-2.7	+2	77.9	+28.4	+3.5	77.4	+29.2	+7
1910.....	102.8	-2.7	(1)	90.0	+11.1	+15.5	91.6	+9.2	+18.3
1911.....	101.3	-1.3	-1.5	88.1	+17.5	-5.4	85.9	+16.4	-6.2
1912.....	101.0	-1.0	-3	86.9	+15.1	+2.1	87.3	+14.5	+1.6
1913.....	100.0	.....	-1.0	100.0	.....	+15.1	100.0	.....	+14.5
Shearmen:									
1907.....	101.8	-1.8	.....	91.6	+9.2	.....	92.9	+7.6	.....
1908.....	102.3	-2.2	+5	79.5	+25.8	-13.2	80.8	+23.8	-13.0
1909.....	102.6	-2.5	+3	82.8	+20.8	+4.2	84.4	+18.5	+4.5
1910.....	102.1	-2.1	-5	90.9	+10.0	+9.8	92.4	+8.2	+9.5
1911.....	100.8	-8	-1.3	87.5	+14.3	-3.7	87.6	+14.2	-5.2
1912.....	100.6	-6	-2	87.5	+14.3	(1)	87.8	+13.9	+2
1913.....	100.0	.....	-6	100.0	.....	+14.3	100.0	.....	+13.9
Shearmen's helpers:									
1907.....	103.2	-3.1	.....	82.2	+21.7	.....	84.7	+18.1	.....
1908.....	103.6	-3.5	+4	79.4	+25.9	-3.4	81.8	+22.2	-3.4
1909.....	105.3	-5.0	+1.6	79.8	+25.3	+5	83.7	+19.5	+2.3
1910.....	102.2	-2.2	-2.9	86.9	+15.1	+8.9	88.7	+12.7	+6.0
1911.....	100.8	-8	-1.4	82.7	+20.9	-4.8	83.2	+20.2	-6.2
1912.....	101.0	-1.0	+2	85.5	+17.0	+3.4	86.6	+15.5	+4.1
1913.....	100.0	.....	-1.0	100.0	.....	+17.0	100.0	.....	+15.5
Bundlers:									
1907.....	104.1	-3.9	.....	88.3	+13.2	.....	92.2	+8.5	.....
1908.....	104.1	-3.9	(1)	76.1	+31.4	-13.8	79.6	+25.6	-13.7
1909.....	104.0	-3.8	-1	81.3	+23.0	+6.8	84.6	+18.2	+6.3
1910.....	104.4	-4.2	+4	93.2	+7.3	+14.6	97.0	+3.1	+14.7
1911.....	100.3	-3	-3.9	86.9	+15.1	-6.8	87.0	+14.9	-10.3
1912.....	100.3	-3	(1)	85.1	+17.5	-2.1	85.1	+17.5	-2.2
1913.....	100.0	.....	-3	100.0	.....	+17.5	100.0	.....	+17.5
Laborers:									
1907.....	104.9	-4.7	.....	85.4	+17.1	.....	88.3	+13.3	.....
1908.....	99.5	+5	-5.1	85.4	+17.1	(1)	84.0	+19.0	-4.9
1909.....	104.1	-3.9	+4.6	83.7	+19.5	-2.0	86.0	+16.3	+2.4
1910.....	103.2	-3.1	-9	89.9	+11.2	+7.4	91.4	+9.4	+6.3
1911.....	100.5	-5	-2.6	89.9	+11.2	(1)	89.2	+12.1	-2.4
1912.....	101.1	-1.1	+6	89.9	+11.2	(1)	90.2	+10.9	+1.1
1913.....	100.0	.....	-1.1	100.0	.....	+11.2	100.0	.....	+10.9

¹ No change.

A similar table of relative numbers and percentages is next shown for the bar-mill department as a whole, as determined by a combination of the data for the several principal productive occupations which are covered by this section of the report. The method of computing the figures of this table is explained on page 23.

From the table following, under "weekly earnings," it is seen that the relative full-time weekly earnings of the industry as a whole in 1907 were 92.4, as compared with 100 in 1913. In other words, the full-time weekly earnings in 1907 were 92.4 per cent of those in 1913. The relative dropped to 83.0 in 1908, advanced to 84.8 in 1909, and to 93.8 in 1910, dropped to 89.3 in 1911, and advanced to 90.2 in 1912. In 1913, the base year, the relative was 100.

The next column shows that full-time weekly earnings in 1913 were 8.2 per cent higher than in 1907, 20.5 per cent higher than in 1908, 17.9 per cent higher than in 1909, 6.6 per cent higher than in 1910, 12 per cent higher than in 1911, and 10.9 per cent higher than in 1912.

The third column under "weekly earnings" shows the per cent of increase or decrease in full-time weekly earnings each year as compared with the year immediately preceding. Thus, the full-time weekly earnings were 10.2 per cent lower in 1908 than in 1907, 2.2 per cent higher in 1909 than in 1908, 10.6 per cent higher in 1910 than in 1909, 4.8 per cent lower in 1911 than in 1910, 1 per cent higher in 1912 than in 1911, and 10.9 per cent higher in 1913 than in 1912. The relative numbers and percentages for full-time hours per week and rates of wages per hour may be read in like manner.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1907 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, ALL OCCUPATIONS—BAR MILLS.

Year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
1907.....	101.6	-1.6	.....	91.5	+ 9.3	.....	92.4	+ 8.2	.....
1908.....	101.1	-1.1	-0.5	82.2	+21.7	-10.2	83.0	+20.5	-10.2
1909.....	102.1	-2.1	+1.0	83.8	+19.3	+ 1.9	84.8	+17.9	+ 2.2
1910.....	101.8	-1.8	- .3	92.8	+ 7.8	+10.7	93.8	+ 6.6	+10.6
1911.....	100.5	- .5	-1.3	89.0	+12.4	- 4.1	89.3	+12.0	- 4.8
1912.....	100.3	- .3	- .2	89.9	+11.2	+ 1.0	90.2	+10.9	+ 1.0
1913.....	100.0	.....	- .3	100.0	.....	+11.2	100.0	.....	+10.9

In considering weekly earnings, it should be remembered that a reduction of hours tends to reduce weekly earnings, just as an increase in wages, of course, tends to increase them. Between 1907 and 1913 it will be observed that hours were reduced 1.6 per cent, and that wages per hour were increased 9.3 per cent, each tending to offset the other in weekly earnings. Still another influence on average weekly earnings for the department must be considered; that is, the change in the relative number of employees in the several occupations from year to year. It is obvious that an increase in the relative number of employees in the lower-paid occupations or a decrease in the relative number of those in the higher-paid ones would tend to lower the average rate and earnings for all occupations, just as an increase in the relative number of employees in the higher-paid occupations or a decrease in the relative number in the lower-paid ones would tend to increase the average.

FULL-TIME WORKING DAYS PER WEEK.

The number and per cent of employees in the principal productive occupations in bar-mill plants whose customary working time per week was 5 days or turns, or 6 days, or 7 days, or variations thereof, are shown in the following table. The figures are presented for each of the three districts for which bar mills are reported, and for the three combined. The employees given under the heading "5 days, 5 days, and 6 days in rotation" and "5 days, 6 days, and 6 days in rotation" are engaged in occupations for which the plant employs three shifts instead of the customary two to complete the 24 hours of the day. For example, every week one-third or two-thirds of the employees reported under these headings worked 6 turns instead of the customary 5 per week.

NUMBER AND PER CENT OF EMPLOYEES IN EACH DISTRICT WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1907 TO 1913—BAR MILLS.

[The figures for each group of years are for identical plants.]

NUMBER.

District, and number of plants.	Year.	Number of employees.	Employees whose customary working time per week was—									
			5 days.	5 days and 6 days alternately.	5 days, 5 days, and 6 days in rotation.	5 days, 6 days, and 6 days in rotation.	6 days.	5 days and 7 days alternately.	6 days and 7 days alternately.	6 days, 6 days, and 7 days in rotation.	6 days, 7 days, and 7 days in rotation.	7 days.
Eastern:												
3 plants.....	1907	313	1	242	.....	.....	70	.....	.....	.....	.....	.....
	1908	355	1	290	.....	.....	64	.....	.....	.....	.....	.....
	1909	357	1	290	.....	.....	66	.....	.....	.....	.....	.....
	1910	380	11	266	.....	.....	103	.....	.....	.....	.....	.....
8 plants.....	1910	890	157	323	.....	.....	406	.....	.....	.....	.....	4
	1911	794	1	453	.....	.....	340	.....	.....	.....	.....	.....

NUMBER AND PER CENT OF EMPLOYEES IN EACH DISTRICT WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

NUMBER—Concluded.

District, and number of plants.	Year.	Number of employees.	Employees whose customary working time per week was—									
			5 days.	5 days and 6 days alternately.	5 days, 5 days, and 6 days in rotation.	5 days, 6 days, and 6 days in rotation.	6 days.	5 days and 7 days alternately.	6 days and 7 days alternately.	6 days, 6 days, and 7 days in rotation.	6 days, 7 days, and 7 days in rotation.	7 days.
Eastern—Concluded.												
8 plants.....	1911	831	1	455			375					
	1912	887	14	551			322					
8 plants.....	1912	946	14	588			344					
	1913	1,083	46	684			353					
Pittsburgh:												
6 plants.....	1907	1,215	32	561	42		521	8	34			17
	1908	1,060	58	455	42		479	4	16			6
	1909	1,103	26	465	42		579	4	18			29
	1910	1,311	17	675	45		552	4	14			4
10 plants.....	1910	2,185	18	676	45		1,403	4	14			25
	1911	1,999	33	730	42		1,167	4	23			
10 plants.....	1911	2,096	37	806	42		1,188	4	16			7
	1912	2,157	37	886	42		1,167	4	12			9
10 plants.....	1912	2,193	37	967	42		1,120	4	14			9
	1913	2,309	121	1,146	42		590		53	342	6	9
Great Lakes and Middle West:												
6 plants.....	1907	850	10	421		64	336	6	4			9
	1908	801	12	335		48	385	6	6			9
	1909	795	4	346		48	356	6	24			11
	1910	869		223		49	571	6	8			12
7 plants.....	1910	1,017		227		49	651	6	8			76
	1911	914	4	347		45	1,496	6	10			6
8 plants.....	1911	997	4	429		45	1,497	6	10			6
	1912	1,006	4	421		45	1,502	6	22			6
8 plants.....	1912	975	4	420		² 53	454	6	22	10		6
	1913	928	5	358		49	469	6	16	10		15
Total:												
15 plants.....	1907	2,378	43	1,224	42	64	927	14	38			26
	1908	2,216	71	1,080	42	48	928	10	22			15
	1909	2,315	31	1,101	42	48	1,001	10	42			40
	1910	2,560	28	1,164	45	49	1,226	10	22			16
25 plants.....	1910	4,092	175	1,226	45	49	2,460	10	22			105
	1911	3,707	38	1,530	42	45	2,003	10	33			6
26 plants.....	1911	3,924	38	1,690	42	45	2,060	10	26			13
	1912	4,050	55	1,858	42	45	1,991	10	34			15
26 plants.....	1912	4,114	55	1,975	42	² 53	1,918	10	36	10		15
	1913	4,320	172	2,188	42	49	1,412	6	69	352	6	24

PER CENT.

Eastern:												
3 plants.....	1907	313	0.3	77.3	.....	.....	22.4	.....	.....	.....	.....	.....
	1908	355	.3	81.7	.....	.....	18.0	.....	.....	.....	.....	.....
	1909	357	.3	81.2	.....	.....	18.5	.....	.....	.....	.....	.....
	1910	380	2.9	70.0	.....	.....	27.1	.....	.....	.....	.....	.....
8 plants.....	1910	890	17.6	36.3	.....	.....	45.6	.....	.....	.....	.....	0.4
	1911	794	.1	57.1	.....	.....	42.8	.....	.....	.....	.....	.....
8 plants.....	1911	831	.1	54.8	.....	.....	45.1	.....	.....	.....	.....	.....
	1912	887	1.6	62.1	.....	.....	36.3	.....	.....	.....	.....	.....

¹ Including 10 employees who worked 7 days every fifth week.

² Including 8 employees who worked 5 days every fourth week.

NUMBER AND PER CENT OF EMPLOYEES IN EACH DISTRICT WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1907 TO 1913—BAR MILLS—Concluded.

PER CENT—Concluded.

District, and number of plants.	Year.	Number of employees.	Employees whose customary working time per week was—									
			5 days.	5 days and 6 days alternately.	5 days, 5 days, and 6 days in rotation.	5 days, 6 days, and 6 days in rotation.	6 days.	5 days and 7 days alternately.	6 days and 7 days alternately.	6 days, 6 days, and 7 days in rotation.	6 days, 7 days, and 7 days in rotation.	7 days.
Eastern—Concluded. 8 plants.....	1912	946	1.5	62.2	.....	.....	36.4	.....	.....	.....	.....	.....
	1913	1,083	4.2	63.2	.....	.....	32.6	.....	.....	.....	.....	.....
Pittsburgh: 6 plants.....	1907	1,215	2.6	46.2	3.5	.....	42.9	0.7	2.8	.....	.....	1.4
	1908	1,060	5.5	42.9	4.0	.....	45.2	.4	1.5	.....	.....	.6
	1909	1,163	2.2	40.0	3.6	.....	49.8	.3	1.5	.....	.....	2.5
	1910	1,311	1.3	51.5	3.4	.....	42.1	.3	1.1	.....	.....	.3
10 plants.....	1910	2,185	.8	30.9	2.1	.....	64.2	.2	.6	.....	.....	1.1
	1911	1,999	1.7	36.5	2.1	.....	58.4	.2	1.2	.....	.....	.....
10 plants.....	1911	2,096	1.6	38.5	2.0	.....	56.7	.2	.8	.....	.....	.3
	1912	2,157	1.7	41.1	1.9	.....	54.1	.2	.6	.....	.....	.4
10 plants.....	1912	2,193	1.7	44.1	1.9	.....	51.1	.2	.6	.....	.....	.4
	1913	2,309	5.2	49.6	1.8	.....	25.6	.....	2.3	14.8	0.3	.4
Great Lakes and Middle West: 6 plants.....	1907	850	1.2	49.5	.....	7.5	39.5	.7	.5	.....	.....	1.1
	1908	801	1.5	41.8	.....	6.0	48.1	.7	.7	.....	.....	1.1
	1909	795	.5	43.5	.....	6.0	44.8	.8	3.0	.....	.....	1.4
	1910	869	.....	25.7	.....	5.6	65.7	.7	.9	.....	.....	1.4
7 plants.....	1910	1,017	.....	22.3	.....	4.8	64.0	.6	.8	.....	.....	7.5
	1911	914	.4	38.0	.....	4.9	54.3	.7	1.1	.....	.....	.7
8 plants.....	1911	997	.4	43.0	.....	4.5	249.8	.6	1.0	.....	.....	.6
	1912	1,006	.4	41.8	.....	4.5	249.9	.6	2.2	.....	.....	.6
8 plants.....	1912	975	.4	43.1	.....	5.4	46.6	.6	2.3	1.0	.....	.6
	1913	928	.5	38.6	.....	5.3	50.6	.6	1.7	1.1	.....	1.6
Total: 15 plants.....	1907	2,378	1.8	51.5	1.8	2.7	39.0	.6	1.6	.....	.....	1.1
	1908	2,216	3.2	48.7	1.9	2.2	41.9	.5	1.0	.....	.....	.7
	1909	2,315	1.3	47.6	1.8	2.1	43.2	.4	1.8	.....	.....	1.7
	1910	2,560	1.1	45.5	1.8	1.9	47.9	.4	.9	.....	.....	.6
25 plants.....	1910	4,092	4.3	30.0	1.1	1.2	60.1	.2	.5	.....	.....	2.6
	1911	3,707	1.0	41.3	1.2	1.2	54.0	.3	.9	.....	.....	.2
26 plants.....	1911	3,924	1.0	43.1	1.1	1.1	52.5	.3	.7	.....	.....	.3
	1912	4,050	1.4	45.9	1.0	1.1	49.2	.2	.8	.....	.....	.4
26 plants.....	1912	4,114	1.3	48.0	1.0	1.3	46.6	.2	.9	.2	.....	.4
	1913	4,320	4.0	50.6	1.0	1.1	32.7	.1	1.6	8.2	.1	.6

¹ Including 1.1 per cent who worked 7 days every fifth week.

² Including 1 per cent who worked 7 days every fifth week.

³ Including 0.8 per cent who worked 5 days every fourth week.

⁴ Including 0.3 per cent who worked 7 days every fifth week.

⁵ Including 0.2 per cent who worked 7 days every fifth week.

⁶ Including 0.2 per cent who worked 5 days every fourth week.

In addition to the text tables in the summary, four general tables are presented for the bar-mill department as follows:

Table I.—Average full-time weekly earnings and average and classified rates of wages per hour in the United States, by years, 1907 to 1913.

Table II.—Average full-time weekly earnings and average and classified rates of wages per hour in each year, by districts, 1912 and 1913.

Table III.—Average and classified full-time hours per week in the United States, by years, 1907 to 1913.

Table IV.—Average and classified full-time hours per week in each year, by districts, 1912 and 1913.

In Tables I and III, in addition to actual data, percentages computed therefrom are given. The data from these two tables are summarized in the text table on pages 204 to 208.

The order in which the occupations are given in Tables I to IV, inclusive, and in the table of relative numbers follows that of the processes of manufacture.

“Identical plants,” as used in the tables of this report, are identical units of identical establishments reporting the same occupations in each of two or more consecutive years. For a more extended explanation see page 17.

Figures for each geographical division for each preceding year back to 1907, corresponding to those given for 1912 and 1913 in Tables II and IV of this report, and descriptions of the occupations which appear in the tables of this report, were published in Bulletin No. 151 of this Bureau, but have been omitted from the present report.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS.

[The figures for each group of years are for identical plants.]

NUMBER.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Stockers:																	
8 plants.....	1907	93	64.4	\$0.178	\$11.43	2	6	51	12	22	.....	.....	.....	.....	.....	.....	
	1908	90	64.1	.167	10.72	¹ 14	12	34	22	8	.....	.....	.....	.....	.....	.....	
	1909	88	64.2	.168	10.79	² 3	32	23	18	10	2	.....	.....	.....	.....	.....	
	1910	87	64.3	.190	12.17	2	5	28	24	28	.....	.....	.....	.....	.....	.....	
13 plants.....	1910	170	59.0	.250	14.24	2	5	28	24	51	23	16	21	.....	.....	.....	
	1911	164	59.6	.230	13.41	2	4	32	28	44	19	35	.....	.....	.....	.....	
15 plants.....	1911	211	60.9	.217	12.94	2	4	65	38	48	19	35	.....	.....	.....	.....	
	1912	217	60.9	.231	13.79	2	5	64	15	57	37	37	.....	.....	.....	.....	
17 plants.....	1912	215	60.9	.232	13.88	2	5	56	19	57	39	37	.....	.....	.....	.....	
	1913	226	60.6	.253	15.12	3	.....	1	59	60	48	43	12	.....	.....	.....	
Heaters:																	
15 plants.....	1907	121	63.9	.508	32.35	.....	.....	.....	.....	.....	10	25	18	43	13	12	
	1908	112	63.9	.467	29.66	.....	.....	.....	.....	1	19	14	35	25	11	7	
	1909	112	64.0	.488	31.06	.....	.....	.....	.....	4	4	13	34	40	11	6	
	1910	142	64.2	.502	31.87	.....	.....	.....	.....	.....	11	24	36	44	12	15	
25 plants.....	1910	217	62.9	.507	31.73	.....	.....	.....	.....	.....	16	39	55	57	31	19	
	1911	180	62.6	.512	31.97	.....	.....	.....	.....	.....	13	37	31	55	26	18	
26 plants.....	1911	184	62.7	.510	31.87	.....	.....	.....	.....	.....	13	38	34	55	26	18	
	1912	199	62.4	.482	29.84	.....	.....	.....	4	.....	23	45	36	41	37	13	
26 plants.....	1912	196	61.8	.499	30.60	.....	.....	.....	.....	.....	23	43	36	41	37	16	
	1913	211	61.7	.560	34.25	.....	.....	.....	.....	1	3	26	49	47	51	34	
Heaters' helpers:																	
14 plants.....	1907	167	65.3	.246	15.77	.....	10	28	36	28	30	23	8	2	2	.....	
	1908	153	65.1	.227	14.50	.....	14	33	36	29	15	19	5	2	.....	.....	
	1909	151	65.0	.234	14.87	14	6	19	31	32	27	16	4	.....	.....	.....	
	1910	166	65.2	.262	16.70	.....	10	21	10	60	26	18	11	8	2	.....	
24 plants.....	1910	295	62.6	.273	16.77	2	15	21	21	89	49	74	11	11	2	.....	
	1911	281	62.5	.262	16.05	.....	13	25	24	97	45	57	10	10	.....	.....	
25 plants.....	1911	293	62.7	.259	15.94	.....	17	27	24	100	47	58	10	10	.....	.....	
	1912	319	62.2	.260	16.01	.....	21	18	35	95	64	64	16	2	4	.....	
24 plants.....	1912	318	61.9	.251	15.41	.....	21	18	43	98	64	66	8	.....	.....	.....	
	1913	324	62.0	.273	16.77	.....	13	12	29	106	66	77	19	2	.....	.....	
Chargers and helpers:																	
12 plants.....	1907	104	65.5	.173	11.34	2	48	30	8	10	5	1	.....	.....	.....	.....	
	1908	102	65.6	.161	10.56	³ 3	58	25	11	5	.....	.....	.....	.....	.....	.....	
	1909	107	65.9	.161	10.60	16	51	20	12	8	.....	.....	.....	.....	.....	.....	
	1910	110	66.3	.181	11.87	.....	24	50	18	10	8	.....	.....	.....	.....	.....	
18 plants.....	1910	179	65.3	.192	12.40	.....	24	62	44	25	24	.....	.....	.....	.....	.....	
	1911	177	65.1	.185	12.02	.....	38	69	24	38	6	2	.....	.....	.....	.....	
19 plants.....	1911	185	64.8	.184	11.90	.....	42	73	24	38	6	2	.....	.....	.....	.....	
	1912	182	65.0	.192	12.45	.....	23	87	18	28	24	2	.....	.....	.....	.....	
19 plants.....	1912	181	64.3	.199	12.72	.....	22	70	20	40	27	2	.....	.....	.....	.....	
	1913	185	63.7	.224	14.17	.....	1	27	52	65	23	10	6	1	.....	.....	
Drag downs:																	
11 plants.....	1907	86	64.4	.271	17.31	.....	9	4	10	19	14	20	6	4	.....	.....	
	1908	82	63.9	.246	15.58	² 10	10	8	5	15	13	15	.....	6	.....	.....	
	1909	83	64.0	.250	15.93	.....	16	6	5	14	20	18	4	.....	.....	.....	
	1910	89	64.0	.286	18.19	.....	6	6	14	10	21	24	4	.....	.....	4	
19 plants.....	1910	132	65.1	.269	17.44	.....	6	8	20	34	27	29	4	.....	.....	4	
	1911	123	64.9	.262	16.88	4	6	8	5	42	35	15	4	.....	.....	4	

¹ Including 6 employees earning 10 and under 12 cents per hour.

² Including 2 employees earning 10 and under 12 cents per hour.

³ Including 1 employee earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Num- ber of em- ploy- ees.	Aver- age full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.											
						12 and un- der 14 cts.	14 and un- der 16 cts.	16 and un- der 18 cts.	18 and un- der 20 cts.	20 and un- der 25 cts.	25 and un- der 30 cts.	30 and un- der 40 cts.	40 and un- der 50 cts.	50 and un- der 60 cts.	60 and un- der 70 cts.	70 cts. and over.	
Drag downs— Concluded.																	
20 plants....	1911	127	64.7	\$0.262	\$16.78	4	6	8	5	44	37	15	4			4	
	1912	130	64.3	.253	16.12	2	20	4	10	31	27	28	8				
plants....	1912	121	63.8	.251	15.81	2	14	4	10	32	31	24	4				
	1913	124	63.1	.281	17.57	4		1	9	38	26	35	11				
Roll engineers: 13 plants....	1907	58	72.3	.226	16.29			4	5	33	16						
	1908	56	71.4	.221	15.76			4	6	35	11						
	1909	56	71.5	.217	15.52		4		12	30	10						
	1910	58	71.7	.230	16.52			4	4	36	14						
22 plants....	1910	99	72.0	.229	16.46			4	10	59	26						
	1911	95	70.4	.228	16.07			6	8	59	22						
	1912	97	70.0	.229	16.05			5	8	63	21						
20 plants....	1912	93	70.1	.228	16.02			5	8	61	19						
	1913	97	70.5	.249	17.56			4		30	57	6					
Rollers, 8-inch: 7 plants....	1907	16	62.5	1.089	68.27									1	3	12	
	1908	16	62.6	.970	60.88							1		1	4	10	
	1909	16	62.5	.956	60.31							1	2		2	11	
	1910	15	62.7	1.028	64.69								3	1	2	9	
11 plants....	1910	28	59.0	.961	57.71								5	3	5	15	
	1911	29	58.0	.929	55.00								2	5	7	15	
	1912	29	58.0	.887	52.81				1				4	4	3	17	
	1913	29	58.1	1.070	62.33						1			5	2	21	
Rollers, 9-inch: 6 plants....	1907	12	66.7	1.038	69.72									2	2	8	
	1908	11	67.7	.809	55.06								1	2	2	6	
	1909	11	67.1	.832	56.25									2		3	
	1910	12	67.0	.969	65.03									1		5	
11 plants....	1910	24	63.2	.943	60.20								1	1	8	14	
	1911	22	63.5	.825	53.07							1	2		2	13	
	1912	23	63.1	.808	51.36									4	4	15	
10 plants....	1912	22	63.0	.812	51.60									6	2	14	
	1913	22	62.8	.932	59.16								1	2	3	16	
Rollers, 10-inch: 5 plants....	1907	12	67.3	1.114	76.01										2	10	
	1908	12	67.3	.974	66.06										3	9	
	1909	12	67.0	1.095	73.38										1	11	
	1910	12	67.0	1.183	79.72											11	
7 plants....	1910	18	65.0	1.069	70.38											17	
	1911	18	63.6	.967	56.28								1		1	15	
	1912	18	63.6	1.066	68.13									1		17	
7 plants....	1912	18	62.1	1.068	67.18										1	17	
	1913	18	61.9	1.132	71.56											18	
Rollers, 12-inch: 7 plants....	1907	15	68.1	.900	61.69									2	2	11	
	1908	13	69.9	.801	55.63							1		2	2	8	
	1909	13	69.8	.884	60.16									2	2	9	
	1910	15	68.5	.888	61.05							1			3	11	
13 plants....	1910	27	64.4	.864	56.26							1		1	6	19	
	1911	24	64.9	.844	54.85									4	3	17	
	1912	26	64.3	.831	53.75						1			5	2	18	
12 plants....	1912	27	64.7	.837	54.44										5	4	
	1913	28	64.4	.961	61.47										4	24	

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.												
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.		
Rollers, 13-inch, 14-inch, and 15-inch: 3 plants.....	1910	7	60.6	\$0.835	\$48.77	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	5		
	1911	7	60.6	.676	39.73	.....	.....	.....	.....	.....	.....	.....	2	.....	4	1		
	1912	7	60.6	.709	42.11	.....	.....	.....	.....	.....	.....	.....	.....	2	3	2		
	1912	9	63.1	.637	38.91	.....	.....	.....	.....	.....	.....	2	.....	2	3	2		
	1913	9	62.7	.676	40.90	.....	.....	.....	.....	.....	.....	2	2	.....	.....	5		
																		
Rollers, 16-inch: 4 plants.....	1907	7	63.3	.897	53.11	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	4		
	1908	7	63.3	.868	56.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	4		
	1909	7	63.3	.850	54.77	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	5		
	1910	9	62.3	1.074	68.32	.....	.....	.....	.....	.....	.....	.....	.....	1	2	6		
	1910	11	62.6	1.007	64.13	.....	.....	.....	.....	.....	.....	.....	.....	1	2	8		
	1911	8	63.9	1.081	70.85	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	6		
6 plants.....	1911	12	62.8	.929	59.52	.....	.....	.....	.....	.....	.....	.....	2	.....	2	8		
	1912	12	62.4	.814	51.35	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	6		
	1912	11	61.7	.787	48.92	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	5		
	1913	11	61.5	.998	62.00	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	10		
	1912	11	61.7	.787	48.92	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	5		
	1913	11	61.5	.998	62.00	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	10		
Rollers, 18-inch: 2 plants.....	1907	3	61.0	.942	58.06	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2		
	1908	4	58.3	.684	39.66	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	3		
	1909	4	58.3	.753	43.79	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	3		
	1910	4	58.3	.860	49.92	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4		
	1910	9	60.8	.669	40.08	.....	.....	.....	.....	.....	.....	2	.....	.....	2	5		
	1911	8	60.3	.771	46.69	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	6		
5 plants.....	1912	9	59.1	.751	44.76	.....	.....	.....	.....	.....	.....	.....	1	.....	3	5		
	1912	12	58.7	.886	52.19	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	3		
	1913	13	58.8	.975	57.83	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	11		
	1912	13	58.8	.975	57.83	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	11		
	1912	13	58.8	.975	57.83	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	11		
	1913	13	58.8	.975	57.83	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	11		
Rollers, all sizes: 13 plants.....	1907	65	65.5	1.013	66.88	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	13	47	
	1908	63	65.7	.878	57.88	.....	.....	.....	.....	.....	.....	3	1	.....	5	14	40	
	1909	63	65.5	.917	60.40	.....	.....	.....	.....	.....	.....	1	5	.....	5	7	45	
	1910	67	65.2	1.010	66.23	.....	.....	.....	.....	.....	.....	1	4	.....	2	13	47	
	1910	124	62.4	.928	58.21	.....	.....	.....	.....	.....	.....	3	8	.....	8	22	83	
	1911	116	62.0	.882	55.26	.....	.....	.....	.....	.....	.....	1	9	.....	12	21	73	
22 plants.....	1911	120	62.0	.873	54.65	.....	.....	.....	.....	.....	.....	1	11	.....	12	21	75	
	1912	124	61.7	.860	53.63	.....	.....	.....	.....	1	1	.....	5	16	21	80		
	1912	128	61.6	.863	53.60	.....	.....	.....	.....	1	.....	2	5	16	23	81		
	1913	130	61.5	.989	60.71	.....	.....	.....	.....	.....	.....	3	3	8	11	105		
	1912	128	61.6	.863	53.60	.....	.....	.....	.....	1	.....	2	5	16	23	81		
	1913	130	61.5	.989	60.71	.....	.....	.....	.....	.....	.....	3	3	8	11	105		
Roughers, 8-inch: 7 plants.....	1907	44	61.2	.397	24.40	.....	.....	.....	.....	.....	7	22	8	7	.....	.....		
	1908	44	61.2	.373	22.76	.....	.....	.....	.....	.....	14	3	27	.....	.....	.....		
	1909	44	61.0	.363	22.28	.....	.....	.....	.....	.....	6	28	9	1	.....	.....		
	1910	41	61.2	.393	24.14	.....	.....	.....	.....	.....	9	16	7	9	.....	.....		
	1910	84	57.5	.368	21.49	.....	.....	.....	.....	6	27	26	10	15	.....	.....		
	1911	81	56.0	.347	19.68	.....	.....	.....	.....	6	15	43	13	4	.....	.....		
11 plants.....	1912	79	56.0	.336	19.03	.....	.....	.....	.....	6	28	23	21	1	.....	.....		
	1913	79	56.4	.391	22.32	.....	.....	.....	2	7	12	24	14	19	1	.....		
	1912	79	56.4	.391	22.32	.....	.....	.....	2	7	12	24	14	19	1	.....		
	1912	79	56.4	.391	22.32	.....	.....	.....	2	7	12	24	14	19	1	.....		
	1912	79	56.4	.391	22.32	.....	.....	.....	2	7	12	24	14	19	1	.....		
	1913	79	56.4	.391	22.32	.....	.....	.....	2	7	12	24	14	19	1	.....		
Roughers, 9-inch: 7 plants.....	1907	58	56.3	.564	29.94	.....	.....	.....	.....	.....	3	13	12	8	.....	22		
	1908	54	60.4	.392	23.30	.....	.....	.....	.....	6	.....	.....	20	20	8	.....		
	1909	54	56.5	.422	23.20	.....	.....	.....	.....	.....	9	12	16	17	.....	.....		
	1910	58	56.9	.454	25.14	.....	.....	.....	.....	.....	12	4	20	16	6	.....		
	1910	58	56.9	.454	25.14	.....	.....	.....	.....	.....	12	4	20	16	6	.....		
	1910	58	56.9	.454	25.14	.....	.....	.....	.....	.....	12	4	20	16	6	.....		

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Roughers, 9- inch—Con. 12 plants.....	1910	88	58.2	\$0.449	\$25.69						16	6	38	22	6	
	1911	83	57.4	.414	23.87						14	29	24	12	4	
	1912	84	57.2	.429	24.17						17	14	22	23	8	
11 plants.....	1912	82	57.0	.433	24.35						15	14	22	23	8	
	1913	83	56.6	.484	27.20						9	11	25	22	8	8
Roughers, 10- inch: 5 plants.....	1907	33	64.4	.441	29.11					8		3	4	18		
	1908	37	65.2	.323	21.09					8	6	15	8			
	1909	37	65.0	.370	23.73						12	14	7	4		
	1910	38	64.8	.395	25.40						9	12	6	11		
7 plants.....	1910	51	64.8	.412	26.45							28	12	11		
	1911	51	63.3	.366	22.72						3	29	17	2		
	1912	51	63.3	.399	24.69						6	20	18	7		
7 plants.....	1912	53	61.7	.374	22.57						14	20	12	7		
	1913	53	61.5	.413	25.17							28	20	5		
Roughers, 12- inch: 8 plants.....	1907	62	64.5	.416	27.10						6	24	28	4		
	1908	55	64.1	.301	19.45					11	18	22	4			
	1909	54	67.7	.351	23.77						9	39	6			
	1910	58	67.5	.400	27.06							34	24			
14 plants.....	1910	89	64.6	.397	25.80						10	39	37	3		
	1911	81	65.3	.361	23.35						22	42	10	7		
	1912	85	64.4	.391	25.24				4		7	46	6	22		
13 plants.....	1912	81	64.4	.401	25.84						7	46	6	22		
	1913	84	63.8	.447	28.44						4	16	49	13	2	
Roughers, 13- inch, 14-inch, and 15-inch: 1 plant.....	1907	12	60.0	.289	17.34						12					
	1908	12	60.0	.250	15.00						12					
	1909	12	60.0	.262	15.72						12					
	1910	12	60.0	.289	17.34						12					
5 plants.....	1910	48	61.5	.379	22.89						12	22	11	3		
	1911	46	61.2	.338	20.51						14	25	7			
	1912	47	61.4	.364	22.23						12	11	24			
	1913	41	61.8	.386	23.30						7	18	11	5		
Roughers, 16- inch: 5 plants.....	1907	36	63.0	.349	22.20					8		24	4			
	1908	32	63.1	.349	22.23					8		10	14			
	1909	34	63.4	.347	22.22					8		12	14			
	1910	42	62.2	.390	24.65					14		6	14	8		
	1911	34	63.4	.415	26.55					8	4	10	10	12		
6 plants.....	1911	42	62.3	.415	26.05					8	4	2	16	12		
	1912	40	61.8	.381	23.63					14		8	12	2	4	
5 plants.....	1912	32	61.0	.384	23.50					14			12	2	4	
	1913	34	61.4	.435	26.85						8		14	12		
Roughers, 18- inch: 2 plants.....	1907	7	62.0	.384	23.68							6		1		
	1908	8	60.5	.348	20.83							6	2			
	1909	8	60.5	.380	22.73							6	1	1		
	1910	8	60.5	.523	31.55									8		
5 plants.....	1910	23	59.4	.414	24.92					6			6	11		
	1911	19	60.3	.444	26.73						2	6		11		
	1912	22	58.9	.465	27.34						2		15	5		

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earn- ings.	Employees earning each classified rate of wages per hour.												70 cts. and over.
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.			
Roughers, 18- inch—Con. 7 plants.....	1912	31	58.9	\$0.494	\$29.04						2		16	13				
	1913	33	58.6	.500	29.42						4		12	15	2			
Roughers, all sizes: 15 plants.....	1907	252	61.5	.434	26.28					16	28	92	56	38			22	
	1908	242	62.5	.343	21.35					33	50	76	75	8				
	1909	243	62.4	.368	22.72					8	48	111	53	23				
	1910	257	62.3	.407	25.21					14	42	72	71	52	6			
	1911	395	60.6	.376	22.65					26	65	127	128	73	6			
25 plants.....	1910	425	61.0	.402	24.51					14	74	174	81	48	4			
	1911	408	60.2	.389	23.36					14	74	176	87	48	4			
26 plants.....	1911	403	60.5	.377	22.68					24	72	122	118	60	12			
	1912	408	60.2	.389	23.36					24	72	122	118	60	12			
26 plants.....	1912	405	59.9	.393	23.42					20	78	114	113	68	12			
	1913	407	59.8	.436	26.00				2	7	44	97	145	91	13		8	
Catchers, 8-inch: 3 plants.....	1907	18	56.6	.362	20.48					2		12	4					
	1908	18	56.6	.350	19.66					2	2	6	8					
	1909	18	56.6	.335	18.90						2	16						
	1910	17	56.4	.371	20.97					1		14	2					
6 plants.....	1910	26	54.3	.351	19.14					3	3	17	3					
	1911	27	54.1	.319	17.32				2	2		23						
	1912	25	54.1	.340	18.48			1	1	4	12	7						
	1913	25	54.3	.400	21.98				1	2	2	6	10	4				
Catchers, 9-inch: 2 plants.....	1907	12	58.0	.474	27.30								4	8				
	1908	12	58.0	.455	25.94							4		8				
	1909	12	58.0	.495	28.68								4	8				
	1910	12	58.0	.526	30.37									4	8			
4 plants.....	1910	17	56.5	.499	28.19								9	8				
	1911	17	56.8	.440	24.76						2	7		8				
	1912	15	55.7	.508	27.86						4	3		8				
3 plants.....	1912	13	54.3	.546	29.55						2	3		8				
	1913	13	54.9	.619	33.98							2	3		8		8	
Catchers,10-inch: 1 plant.....	1907	10	72.0	.352	25.35							9	1					
	1908	10	72.0	.377	27.14							7	3					
	1909	10	71.5	.379	27.06							7	3					
	1910	10	71.5	.456	32.63								10					
3 plants.....	1910	16	66.8	.383	26.24					4	2		10					
	1911	16	65.9	.365	24.46				1	1	3	3	8					
	1912	16	65.9	.419	28.23						4	2	8	2				
2 plants.....	1912	18	66.4	.449	30.49						2	2	12	2				
	1913	18	66.4	.484	33.12						3	1	3	10	1			
Catchers,12-inch: 5 plants.....	1907	16	65.6	.446	29.52					4		2	1	9				
	1908	17	64.1	.317	20.42						7	9			1			
	1909	17	63.9	.349	22.61					4	2	8	2				1	
	1910	18	63.7	.411	26.37						4	4	8	2				
10 plants.....	1910	28	62.5	.403	25.40						6	9	9	4				
	1911	27	62.1	.368	22.90					2	4	15	5				1	
	1912	29	61.7	.348	21.52					4	6	12	5	2				
9 plants.....	1912	25	61.1	.372	22.88						6	12	5	2				
	1913	25	61.0	.416	25.26						4	8	7	6				

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earn- ings.	Employees earning each classified rate of wages per hour.											70 cts. and over.
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.		
Catchers, 13-inch, 14-inch, and 15- inch: 3 plants.....	1910	7	61.7	\$0.458	\$27.63							2	2	3			
	1911	7	61.7	.392	23.92							5	2				
	1912	7	61.7	.407	24.70							4	3				
	1913	7	61.1	.461	27.58							2	3	2			
Catchers, 16-inch: 4 plants.....	1907	10	64.5	.636	41.02							4	2			4	
	1908	9	65.0	.499	32.46						2	3			2		
	1909	9	65.0	.552	36.02							4			2	3	
	1910	12	64.6	.547	35.32								4	4	4		
	1911	9	65.0	.664	43.23								4	2	1	2	
	1912	9	64.5	.511	33.00								7			2	
	3 plants.....	1912	7	64.4	.418	26.90								7			
Catchers, 18-inch: 2 plants.....	1913	8	64.4	.499	32.12								6	2			
	1907	3	61.0	.423	25.96							1	1	1			
5 plants.....	1908	4	58.3	.314	18.51						2	2					
	1909	4	58.3	.346	20.40						1	2	1				
	1910	4	58.3	.466	27.72							2		2			
	1910	9	58.6	.375	22.36				2			4	1	2			
7 plants.....	1911	8	59.0	.369	21.99				1	2		2	1	2			
	1912	9	58.0	.391	22.87				1			4	2	2			
	1912	13	57.5	.467	27.01				1			4	4	2		2	
Catchers, all sizes: 11 plants.....	1913	14	57.3	.463	26.76				2			2	4	4		2	
	1907	69	62.5	.442	27.68				6			28	13	18		4	
20 plants.....	1908	70	62.0	.381	23.57				2	13	31	11	10	1		2	
	1909	70	61.9	.400	24.93				4	5	37	10	10			4	
	1910	73	62.0	.452	28.17				1	4	20	28	16	4			
	1910	115	60.2	.419	25.45				2	7	11	32	38	21	4		
20 plants.....	1911	111	59.9	.392	23.70				*3	6	11	55	20	12	1	3	
	1912	110	59.7	.399	23.92			1		6	18	37	32	6	8	2	
	1912	108	59.4	.415	24.81			1		2	14	37	38	6	8	2	
Stranders, 8-inch: 7 plants.....	1913	110	59.4	.462	27.67				1	4	9	21	36	28	1	10	
	1907	56	62.6	.305	19.11				2	20	11	11	6	6			
11 plants.....	1908	56	62.8	.267	16.77	1	1			18	20	16					
	1909	56	62.7	.274	17.22		1	1		18	22	14					
	1910	54	62.8	.305	19.11		2			6	24	18	4				
	1910	75	61.6	.275	17.00	14	2	5		15	26	19	4				
11 plants.....	1911	73	60.4	.249	15.12	14		4	11	20	14	20					
	1912	73	60.4	.244	14.88	15	2	4	7	14	26	15					
	1912	67	60.6	.236	14.53	15	2	4	7	14	26	9					
Stranders, 9- inch: 6 plants.....	1913	66	60.7	.302	18.54	7		1	2	12	9	25	10				
	1907	41	56.2	.395	20.75			2		9	6	6		9	9		
10 plants.....	1908	39	56.4	.276	15.10	2			9	2	6	20					
	1909	39	56.3	.287	15.75	1	1	1		8	10	18					
	1910	39	56.3	.332	18.28		2			2	9	26					
	1910	64	59.1	.289	16.64		2		6	19	9	28					
9 plants.....	1911	62	58.6	.247	14.39		3	3	11	17	18	7	3				
	1912	61	58.0	.235	13.44	2	4	6	9	14	9	17					
	1912	57	57.6	.241	13.68	2		6	9	14	9	17					
	1913	57	56.9	.293	16.33			2	9	14	4	22	6				

1 Including 2 employees earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employ- ees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Stranders, 10- inch: 5 plants.....	1907	43	55.1	\$0.354	\$19.47				4			39					
	1908	43	55.1	.320	17.08				4	8	2	29					
	1909	43	55.0	.378	19.95						10	21	12				
	1910	43	55.0	.444	23.09					4		18			21		
7 plants.....	1910	57	57.7	.390	21.13			4		8	6	18			21		
	1911	57	56.7	.322	17.35		3	1	5	9	9	9	21				
	1912	57	56.7	.370	19.71				1	11	15	9	9	9	12		
7 plants.....	1912	55	55.2	.372	19.39				1	15	9	9	9	12			
	1913	55	55.1	.392	20.77				2	2	12	18	9	12			
Stranders, 12- inch: 3 plants.....	1907	13	69.0	.352	24.53						3	2	8				
	1908	14	70.4	.284	19.99						12	2					
	1909	14	70.4	.293	20.62						4	10					
	1910	16	69.1	.411	28.82						4	2	10				
9 plants.....	1910	48	64.4	.286	18.71				4	24	4	6	10				
	1911	40	65.3	.271	17.71				16	6	2	15	1				
	1912	43	64.7	.309	20.38				14	6	8	5		10			
	1913	49	62.4	.319	20.28					21	13	2	1	12			
Stranders, 13- inch, 14-inch, and 15-inch: 1 plant.....	1907	20	60.0	.233	14.00		2	2		8	8						
	1908	20	60.0	.201	12.06		2	2		16							
	1909	20	60.0	.211	12.65		2	2		16							
	1910	26	60.0	.224	13.46			2	8	8	8						
	1911	20	60.0	.221	13.25				4	16							
	1912	22	60.0	.217	13.01			6		16							
	1913	11	60.0	.255	15.27					3	8						
Stranders, 16- inch: 1 plant.....	1907	2	65.0	.361	23.47							2					
	1908	2	65.0	.344	22.36							2					
	1909	2	65.0	.299	19.44						2						
	1910	2	65.0	.484	31.46									2			
	1911	2	65.0	.480	31.20									2			
2 plants.....	1911	10	57.0	.424	24.28								10				
	1912	10	57.0	.405	22.86							2	8				
1 plant.....	1912	8	55.0	.431	23.71								8				
	1913	8	55.0	.523	28.77									8			
Stranders, all sizes: 13 plants....	1907	175	59.5	.334	19.45		2	4	6	37	28	60	14	15	9		
	1908	174	59.7	.277	16.25		3	3	2	13	44	40	69				
	1909	174	59.7	.297	17.34		1	4	4	42	48	63	12				
	1910	180	59.7	.344	20.06			4	2	8	20	45	64	16	21		
21 plants....	1910	272	60.6	.301	17.85	14	4	11	18	74	53	71	16	21			
	1911	254	59.9	.268	15.83	14	6	12	43	68	43	51	27				
22 plants....	1911	262	59.8	.272	16.03	14	6	12	43	68	43	51	35				
	1912	266	59.6	.283	16.62	17	6	16	31	61	58	48	17	22			
20 plants....	1912	252	59.2	.284	16.56	17	2	16	31	65	52	40	17	22			
	1913	246	58.7	.328	19.07	7		3	13	52	46	67	26	32			
Finishers, 8- inch: 6 plants.....	1907	14	64.5	.298	19.43				2	4	2	4	1	1			
	1908	14	64.8	.277	18.03					2	4	3	3	2			
	1909	14	64.7	.290	18.77				2	2	2	6	2				
	1910	13	65.1	.309	20.19					2	4	5	2	2			

¹ Including 2 employees earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Finishers, 8- inch—Con. 9 plants.....	1910	24	60.6	\$0.303	\$18.24	.....	.....	2	.....	2	7	11	2	.....	.....	.....	
	1911	25	59.6	.302	18.01	.....	.....	2	.....	2	9	10	1	1	.....	.....	
	1912	25	59.6	.295	17.60	.....	.....	2	.....	3	9	9	1	1	.....	.....	
10 plants.....	1912	31	59.3	.301	17.84	.....	.....	2	.....	3	9	15	1	1	.....	.....	
	1913	31	59.4	.354	21.07	.....	.....	.....	2	4	4	12	5	4	.....	.....	
Finishers, 9- inch: 5 plants.....	1907	15	66.8	.244	16.24	1	2	.....	2	4	5	.....	2	.....	.....	.....	
	1908	14	67.9	.245	16.53	1	2	.....	.....	4	5	2	.....	.....	.....	.....	
	1909	14	67.8	.254	17.10	1	.....	1	1	4	5	2	.....	.....	.....	.....	
	1910	14	67.8	.261	17.58	1	.....	2	.....	4	5	.....	2	.....	.....	.....	
	1910	24	64.3	.287	17.98	1	.....	2	.....	6	9	1	5	.....	.....	.....	
9 plants.....	1911	23	63.8	.272	17.18	1	.....	1	1	6	7	5	2	.....	.....	.....	
	1912	24	63.4	.282	17.61	1	.....	1	1	4	9	6	2	.....	.....	.....	
	1913	24	63.2	.293	18.26	.....	.....	2	1	.....	13	5	3	.....	.....	.....	
	1913	24	63.2	.293	18.26	.....	.....	2	1	.....	13	5	3	.....	.....	.....	
Finishers, 10- inch: 4 plants.....	1907	10	68.0	.396	27.29	.....	.....	.....	.....	.....	2	2	4	2	.....	.....	
	1908	10	68.0	.342	23.48	.....	.....	.....	.....	.....	4	4	2	.....	.....	.....	
	1909	10	67.7	.387	26.16	.....	.....	.....	.....	.....	.....	5	5	.....	.....	.....	
	1910	10	67.7	.412	28.19	.....	.....	.....	.....	.....	.....	6	2	2	.....	.....	
5 plants.....	1910	12	69.3	.376	26.20	.....	.....	.....	2	2	4	2	2	.....	.....	.....	
	1911	12	68.4	.329	22.72	.....	.....	1	1	2	2	2	3	1	.....	.....	
	1912	12	68.4	.358	24.73	.....	.....	.....	.....	.....	5	4	1	2	.....	.....	
5 plants.....	1912	12	66.3	.367	24.71	.....	.....	.....	.....	.....	3	6	1	2	.....	.....	
	1913	12	66.0	.427	28.62	.....	.....	.....	.....	.....	1	5	2	2	2	.....	
Finishers, 12- inch: 4 plants.....	1907	12	69.3	.336	23.28	.....	.....	.....	.....	.....	6	2	4	.....	.....	.....	
	1908	11	70.5	.271	19.04	.....	.....	2	.....	2	4	2	1	.....	.....	.....	
	1909	11	70.4	.297	20.85	.....	.....	.....	.....	2	4	4	1	.....	.....	.....	
	1910	12	69.5	.359	24.97	.....	.....	.....	.....	.....	4	4	2	2	.....	.....	
8 plants.....	1910	20	65.8	.349	22.74	.....	.....	.....	.....	.....	7	6	5	2	.....	.....	
	1911	19	65.2	.324	20.78	.....	.....	.....	.....	6	5	2	5	1	.....	.....	
10 plants.....	1911	22	63.7	.309	19.51	.....	.....	.....	2	6	6	2	5	1	.....	.....	
	1912	24	63.0	.311	19.81	.....	.....	.....	2	5	10	3	2	.....	2	.....	
	1913	24	62.8	.363	22.70	.....	.....	.....	2	.....	7	9	1	2	3	.....	
Finishers, 13- inch, 14-inch, and 15-inch: 1 plant.....	1907	4	60.0	.315	18.90	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	
	1908	4	60.0	.275	16.50	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	
	1909	4	60.0	.289	17.34	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	
	1910	4	60.0	.316	18.96	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	
4 plants.....	1910	15	64.0	.339	21.01	.....	.....	.....	.....	.....	6	6	.....	3	.....	.....	
	1911	15	64.0	.316	19.83	.....	.....	.....	.....	.....	4	10	1	.....	.....	.....	
	1912	15	64.0	.319	19.97	.....	.....	.....	.....	.....	4	8	3	.....	.....	.....	
	1913	13	63.4	.345	21.20	.....	.....	.....	.....	.....	6	4	2	1	.....	.....	
Finishers, 16- inch: 2 plants.....	1907	8	62.8	.262	16.39	.....	.....	.....	.....	4	4	.....	.....	.....	.....	.....	
	1908	8	62.8	.242	15.11	.....	.....	.....	.....	5	3	.....	.....	.....	.....	.....	
	1909	8	62.8	.265	16.68	.....	.....	.....	.....	2	6	.....	.....	.....	.....	.....	
	1910	9	62.2	.310	19.37	.....	.....	.....	.....	.....	3	6	.....	.....	.....	.....	
3 plants.....	1910	11	62.5	.324	20.34	.....	.....	.....	.....	.....	3	8	.....	.....	.....	.....	
	1911	11	63.5	.325	20.73						2	9					

¹ Including 1 employee earning 10 and under 12 cents per hour.

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TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.												
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.		
Finishers, 16-inch—Con. 4 plants.....	1911	19	61.1	\$0.363	\$22.08	.....	.....	.....	.....	.....	2	11	6	.....	.....	.....	.....	.....
	1912	20	61.1	.377	22.77	.....	.....	2	.....	.....	8	2	4	.....	4	.....	.....	.....
	1913	18	61.1	.410	24.87	.....	.....	.....	.....	.....	.....	10	4	.....	.....	.....	.....	.....
Finishers, 18-inch: 1 plant.....	1907	2	62.8	.435	27.30	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....
	1908	2	62.8	.417	26.25	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....
	1909	2	62.8	.438	27.48	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....
	1910	2	62.8	.438	27.48	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....
																		
3 plants.....	1910	5	61.9	.308	19.15	.....	.....	.....	.....	3	.....	.....	.....	2	.....	.....	.....	.....
	1911	5	60.7	.350	21.38	.....	.....	.....	.....	.....	1	2	.....	2	.....	.....	.....	.....
	1912	6	58.9	.336	20.02	.....	.....	.....	.....	.....	2	2	.....	2	.....	.....	.....	.....
5 plants.....	1912	11	58.6	.427	25.19	.....	.....	.....	.....	.....	2	3	.....	2	.....	.....	.....	.....
	1913	12	58.7	.414	24.47	.....	.....	.....	.....	.....	2	4	.....	2	4	.....	.....	.....
Finishers, all sizes: 10 plants.....	1907	65	65.9	.309	20.45	1	2	.....	4	12	19	12	13	3	.....	.....	.....	.....
	1908	63	66.4	.279	18.53	1	2	.....	2	15	23	12	6	.....	.....	.....	.....	.....
	1909	63	66.2	.300	19.85	1	.....	1	3	10	21	17	10	.....	.....	.....	.....	.....
	1910	64	66.1	.329	21.80	1	.....	2	.....	6	16	25	10	4	.....	.....	.....	.....
																		
17 plants.....	1910	111	64.0	.323	20.48	1	.....	4	.....	13	34	36	16	7	.....	.....	.....	.....
	1911	110	63.4	.309	19.50	1	.....	4	2	16	30	40	14	3	.....	.....	.....	.....
19 plants.....	1911	121	62.8	.313	19.60	1	.....	4	4	16	31	42	20	3	.....	.....	.....	.....
	1912	126	62.5	.319	19.92	1	.....	5	3	12	47	34	15	3	6	.....	.....	.....
21 plants.....	1912	137	62.0	.328	20.29	1	.....	5	3	12	45	43	15	7	6	.....	.....	.....
	1913	134	61.8	.363	22.36	.....	.....	2	5	4	33	49	19	17	5	.....	.....	.....
Hook ups, 12-inch: 6 plants.....	1907	49	64.8	.289	18.98	.....	.....	.....	.....	12	21	16	.....	.....	.....	.....	.....	.....
	1908	37	69.1	.230	15.75	.....	2	6	2	18	5	4	.....	.....	.....	.....	.....	.....
	1909	37	68.9	.241	16.46	.....	.....	.....	4	20	10	3	.....	.....	.....	.....	.....	.....
	1910	37	69.9	.318	22.33	.....	.....	.....	.....	8	12	3	14	.....	.....	.....	.....	.....
																		
13 plants.....	1910	69	62.8	.282	17.93	.....	1	2	4	14	31	3	14	.....	.....	.....	.....	.....
	1911	53	63.4	.244	15.38	.....	3	6	10	7	15	12	.....	.....	.....	.....	.....	.....
	1912	56	62.5	.269	17.15	.....	2	2	12	10	15	7	8	.....	.....	.....	.....	.....
	1913	58	61.5	.323	19.68	.....	2	.....	.....	13	7	20	16	.....	.....	.....	.....	.....
																		
Hook ups, 13-inch, 14-inch, and 15-inch: 1 plant.....	1907	8	60.0	.184	11.04	.....	.....	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1908	14	60.0	.163	9.77	.....	.....	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1909	8	60.0	.173	10.40	.....	.....	6	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
	1910	12	60.0	.197	11.84	.....	.....	.....	8	4	.....	.....	.....	.....	.....	.....	.....	.....
5 plants.....	1910	50	64.2	.237	14.66	.....	.....	7	18	8	8	9	.....	.....	.....	.....	.....	.....
	1911	45	64.2	.225	14.06	.....	.....	3	18	15	.....	9	.....	.....	.....	.....	.....	.....
	1912	51	63.8	.229	14.29	.....	.....	10	16	8	8	9	.....	.....	.....	.....	.....	.....
	1913	43	63.8	.263	16.32	.....	.....	.....	16	27	7	6	3	.....	.....	.....	.....	.....
																		
Hook ups, 16-inch: 5 plants.....	1907	26	63.9	.263	16.91	4	.....	2	.....	.....	16	2	2	.....	.....	.....	.....	.....
	1908	23	64.4	.269	17.35	.....	.....	3	2	5	1	12	.....	.....	.....	.....	.....	.....
	1909	27	64.7	.274	17.80	.....	2	.....	.....	.....	10	11	.....	.....	.....	.....	.....	.....
	1910	35	64.1	.326	20.97	.....	.....	.....	2	.....	2	27	2	2	.....	.....	.....	.....
	1911	25	64.4	.337	21.83	.....	.....	.....	2	.....	1	18	2	2	.....	.....	.....	.....
6 plants.....	1911	35	62.4	.308	19.43	.....	.....	.....	5	.....	8	18	2	2	.....	.....	.....	.....
	1912	36	61.5	.269	16.61	.....	.....	.....	4	4	22	6	.....	.....	.....	.....	.....	.....
5 plants.....	1912	32	61.1	.263	16.08	.....	.....	.....	4	4	22	2	.....	.....	.....	.....	.....	.....
	1913	34	61.5	.329	20.28	.....	.....	.....	.....	3	1	26	4	.....	.....	.....	.....	.....

¹ Including 1 employee earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.												
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.		
Hook ups, 18- inch: 2 plants.....	1907	9	62.2	\$0.238	\$14.83				3		3	3						
	1908	10	61.0	.190	11.64		1	3		6								
	1909	10	61.0	.202	12.39			3		6								
	1910	9	60.8	.294	18.13				2	1			6					
5 plants.....	1910	20	60.4	.227	13.85		2	3	4	3	2		6					
	1911	21	60.5	.221	13.48	14	4	1	3	3			6					
	1912	24	59.2	.217	12.93	2	2	4	3	7			6					
7 plants.....	1912	38	59.0	.258	15.31	2	2	4	3	9			18					
	1913	40	58.8	.281	16.60		2	1	4	13			18	2				
Hook ups, all sizes: 12 plants....	1907	92	63.9	.268	17.30	4			9	4	15	40	18	2				
	1908	84	65.3	.225	14.70	1	5	23	4	29	6	16						
	1909	82	65.7	.241	15.82		5	7	6	30	20	14						
	1910	93	65.6	.303	20.06				2	11	12	14	36	16	2			
20 plants....	1910	174	63.2	.272	17.13	2	4	13	27	24	41	45	16	2				
	1911	144	63.4	.251	15.81	14	7	10	33	25	16	45	2	2				
21 plants....	1911	154	63.0	.250	15.66	14	7	10	36	25	23	45	2	2				
	1912	167	62.2	.249	15.56	2	4	16	35	29	45	28	8					
22 plants....	1912	177	61.9	.254	15.74	2	4	16	35	31	45	36	8					
	1913	175	61.4	.300	18.27		4	1	4	56	15	70	25					
Roll hands, other, 8-inch: 5 plants.....	1907	20	65.1	.250	16.20		2	4	2	2	3	7						
	1908	20	65.3	.237	15.29	23	5			4	3	3	2					
	1909	20	65.1	.235	15.15	2	5	1		6	1	3	2					
	1910	20	65.1	.257	16.51	2	2	4		2	4	3	2	1				
9 plants.....	1910	33	60.6	.251	15.01	14	4	4		2	10	6	2	1				
	1911	33	60.0	.253	15.04	32	2	7	1	3	8	8	2					
	1912	33	60.0	.248	14.75	45	1	5	1	4	9	6	1	1				
	1913	36	59.6	.284	16.83	46				6	1	4	15	3	1			
Roll hands, other, 9-inch: 3 plants.....	1907	18	59.7	.224	12.91			8	2		6	2						
	1908	18	60.4	.223	12.95		2	8			6	2						
	1909	18	60.3	.222	12.90			10			6	2						
	1910	18	60.3	.234	13.64			2	8		6	2						
6 plants.....	1910	35	56.5	.267	14.49		2	2	8	2	7	11	3					
	1911	35	56.1	.242	13.24	2	1	10		9	6	5	2					
	1912	36	56.3	.257	14.05	2	1	11		2	13	5		2				
	1913	36	57.2	.275	15.38			4	8	2	9	9	2	2				
Roll hands, other, 10-inch: 4 plants.....	1907	29	70.4	.388	27.24					1		22	1	5				
	1908	29	70.4	.327	22.89					12	5	5	3	4				
	1909	29	70.0	.346	24.04					1	15	6	3	3	1			
	1910	29	70.0	.409	28.38						2	17	4	2	2	2		
7 plants.....	1910	39	67.8	.359	24.58		4		2		6	17	4	2	2	2		
	1911	39	66.8	.327	22.11		1	1	6		16	5	6	1	3			
	1912	39	66.8	.351	23.69			1	1	5	16	4	8		2	2		
6 plants.....	1912	33	66.0	.341	22.72			1	1	5	14	4	4			2	2	
	1913	33	66.0	.387	25.95				4	2		18	3	2	1	3		

1 Including 2 employees earning 10 and under 12 cents per hour.

2 Including 1 employee earning 10 and under 12 cents per hour.

3 Earning 10 and under 12 cents per hour.

4 Including 3 employees earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS 1907 TO 1913—**BAR MILLS**—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.												
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.		
Roll hands, other, 12-inch: 4 plants.....	1907	24	70.1	\$0.201	\$14.04	.....	.....	14	4	4	.....	.....	2	.....	.....	.....		
	1908	21	70.4	.194	13.60	.....	12	.....	2	5	.....	.....	2	.....	.....	.....		
	1909	21	70.3	.210	14.75	.....	.....	.....	16	3	.....	2	.....	.....	.....	.....		
	1910	22	69.9	.302	21.27	.....	.....	.....	2	6	.....	12	.....	2	.....	.....		
9 plants.....	1910	33	67.0	.285	19.06	.....	.....	.....	7	8	1	15	.....	2	.....	.....		
	1911	32	67.7	.254	16.95	.....	.....	2	4	20	1	1	4	.....	.....	.....		
	1912	33	67.5	.298	20.25	.....	.....	2	2	9	1	17	.....	2	.....	.....		
7 plants.....	1912	28	67.5	.284	19.20	.....	.....	2	.....	8	1	17	.....	.....	.....	.....		
	1913	28	67.4	.304	20.15	.....	.....	.....	2	6	2	15	.....	3	.....	.....		
Roll hands, other, 13-inch, 14-inch, and 15-inch: 3 plants.....	1910	29	62.1	.307	17.94	.....	.....	.....	10	.....	5	2	12	.....	.....	.....		
	1911	28	61.7	.268	15.81	.....	.....	10	.....	1	5	12	.....	.....	.....	.....		
	1912	25	63.4	.268	16.17	.....	.....	10	.....	.....	6	9	.....	.....	.....	.....		
	1913	19	60.0	.335	19.38	.....	.....	.....	4	.....	4	4	7	.....	.....	.....		
Roll hands, other, 16-inch: 2 plants.....	1907	4	64.5	.331	21.26	.....	.....	.....	.....	.....	2	1	1	.....	.....	.....		
	1908	4	64.5	.331	21.21	.....	.....	.....	.....	.....	2	1	1	.....	.....	.....		
	1909	4	64.5	.359	22.97	.....	.....	.....	.....	.....	2	1	.....	1	.....	.....		
	1910	4	64.5	.374	24.13	.....	.....	.....	.....	.....	2	.....	1	1	.....	.....		
	1911	4	64.5	.398	25.63	.....	.....	.....	.....	.....	2	.....	1	1	.....	.....		
	1912	3	64.5	.394	25.51	.....	.....	.....	.....	.....	1	.....	2	.....	.....	.....		
1 plant.....	1912	6	64.5	.350	22.59	.....	.....	.....	.....	.....	4	.....	2	.....	.....	.....		
	1913	6	64.5	.408	26.36	.....	.....	.....	.....	.....	.....	4	.....	2	.....	.....		
Roll hands, other, 18-inch: 1 plant.....	1907	2	62.8	.237	14.84	.....	.....	.....	1	1	1	.....	.....	.....	.....	.....		
	1908	2	62.8	.181	11.33	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....		
	1909	2	62.8	.200	12.55	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....		
	1910	2	62.8	.296	18.57	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....		
4 plants.....	1910	7	59.9	.226	13.67	.....	.....	.....	4	1	2	.....	.....	.....	.....	.....		
	1911	6	60.8	.256	15.55	.....	1	1	.....	1	1	2	.....	.....	.....	.....		
	1912	7	59.2	.235	13.91	.....	.....	.....	.....	4	3	.....	.....	.....	.....	.....		
5 plants.....	1912	9	59.3	.309	18.35	.....	.....	.....	.....	4	3	.....	.....	2	.....	.....		
	1913	10	58.9	.344	20.41	.....	.....	.....	.....	2	3	3	.....	2	.....	.....		
Roll hands, other, all sizes: 9 plants.....	1907	97	66.8	.278	18.53	.....	2	26	8	8	12	32	4	5	.....	.....		
	1908	94	67.0	.255	16.97	13	19	9	3	21	16	11	8	4	.....	.....		
	1909	94	66.8	.266	17.65	2	5	11	17	11	24	14	5	4	1	.....		
	1910	95	66.7	.315	21.06	2	2	6	10	8	16	34	7	6	2	2		
18 plants.....	1910	180	62.8	.295	18.35	24	10	6	31	13	33	51	22	6	2	2		
	1911	177	62.5	.273	16.97	24	5	31	11	34	39	33	15	2	3	.....		
	1912	176	62.7	.287	17.97	27	2	29	4	24	49	41	11	3	4	2		
18 plants.....	1912	170	62.2	.284	17.56	27	2	29	2	23	50	41	7	5	2	2		
	1913	168	61.8	.320	19.71	26	.....	4	24	13	22	68	15	12	1	3		

¹ Including 1 employee earning 10 and under 12 cents per hour.

² Including 2 employees earning 10 and under 12 cents per hour.

³ Including 3 employees earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Hotbed men:																
15 plants....	1907	302	63.3	\$0.189	\$11.98	¹ 18	108	47	32	60	17	20	.....	.....	.....	.....
	1908	299	63.2	.174	10.93	² 27	116	64	37	35	13	7	.....	.....	.....	.....
	1909	286	63.3	.180	11.00	³ 52	70	53	33	54	9	15	.....	.....	.....	.....
	1910	302	63.3	.208	13.02	⁴ 22	38	87	36	58	36	4	19	2	.....	.....
25 plants....	1910	500	62.9	.200	12.46	⁵ 52	78	127	71	83	57	11	19	2	.....	.....
	1911	434	62.0	.189	11.69	⁶ 50	78	125	59	65	27	24	4	2	.....	.....
26 plants....	1911	450	61.9	.188	11.61	⁶ 50	90	125	63	65	27	24	4	2	.....	.....
	1912	461	61.7	.192	11.80	⁷ 57	42	130	69	101	38	24	.....	.....	.....	.....
26 plants....	1912	455	61.5	.192	11.73	⁸ 47	42	138	73	99	34	22	.....	.....	.....	.....
	1913	467	60.9	.221	13.43	⁹ 21	21	27	132	168	61	27	10	.....	.....	.....
Shearmen:																
15 plants....	1907	94	64.8	.249	16.20	.....	1	17	20	20	12	20	.....	2	2	.....
	1908	92	65.1	.216	14.10	2	1	24	21	22	15	6	.....	.....	1	.....
	1909	93	65.3	.225	14.72	.....	6	13	27	20	16	9	1	.....	1	.....
	1910	97	65.0	.247	16.11	.....	9	8	24	14	18	20	3	1	.....	.....
25 plants....	1910	156	63.3	.264	16.40	2	13	11	30	27	29	31	9	1	.....	3
	1911	151	62.5	.254	15.55	2	8	17	41	23	25	20	10	5	.....	.....
	1912	154	62.4	.254	15.59	2	5	17	38	31	25	25	6	5	.....	.....
24 plants....	1912	156	62.4	.251	15.40	2	5	16	40	35	24	23	6	5	.....	.....
	1913	159	62.0	.287	17.54	.....	.....	10	13	55	33	21	19	4	4	.....
Shearmen's helpers:																
15 plants....	1907	201	65.9	.174	11.46	¹⁰ 22	76	49	12	28	12	2	.....	.....	.....	.....
	1908	172	66.2	.168	11.07	¹⁰ 19	74	33	20	21	3	2	.....	.....	.....	.....
	1909	185	67.3	.169	11.32	¹ 39	63	32	17	27	5	2	.....	.....	.....	.....
	1910	215	65.3	.184	12.00	¹¹ 12	55	69	13	48	16	2	.....	.....	.....	.....
23 plants....	1910	355	64.7	.187	12.02	¹² 38	58	109	29	87	20	14	.....	.....	.....	.....
	1911	359	63.8	.178	11.28	¹³ 45	57	156	22	57	18	2	2	.....	.....	.....
	1912	358	63.9	.184	11.74	¹⁴ 34	30	142	28	94	26	4	.....	.....	.....	.....
22 plants....	1912	337	63.4	.183	11.52	¹⁴ 32	30	143	23	80	27	2	.....	.....	.....	.....
	1913	316	62.8	.214	13.30	¹⁵ 14	22	21	88	113	22	34	2	.....	.....	.....
Bundlers:																
5 plants....	1907	41	66.9	.202	13.53	.....	.....	10	13	16	1	1	.....	.....	.....	.....
	1908	41	66.9	.174	11.68	2	12	15	8	3	1	.....	.....	.....	.....	.....
	1909	41	66.8	.186	12.42	.....	4	13	18	6	.....	.....	.....	.....	.....	.....
	1910	41	67.1	.213	14.23	.....	2	9	2	26	2	.....	.....	.....	.....	.....
6 plants....	1910	77	66.1	.207	13.69	.....	2	9	24	40	2	.....	.....	.....	.....	.....
	1911	81	63.5	.193	12.28	.....	1	16	32	30	2	.....	.....	.....	.....	.....

¹ Including 14 employees earning 10 and under 12 cents per hour.² Including 6 employees earning 8 and under 9 cents, 4 employees earning 9 and under 10 cents, and 2 employees earning 10 and under 12 cents per hour.³ Including 6 employees earning 9 and under 10 cents and 8 employees earning 10 and under 12 cents per hour.⁴ Including 6 employees earning 9 and under 10 cents and 6 employees earning 10 and under 12 cents per hour.⁵ Including 6 employees earning 9 and under 10 cents and 18 employees earning 10 and under 12 cents per hour.⁶ Including 23 employees earning 10 and under 12 cents per hour.⁷ Including 3 employees earning 8 and under 9 cents, 5 employees earning 9 and under 10 cents, and 19 employees earning 10 and under 12 cents per hour.⁸ Including 3 employees earning 8 and under 9 cents, 5 employees earning 9 and under 10 cents, and 17 employees earning 10 and under 12 cents per hour.⁹ Including 3 employees earning 7 and under 8 cents, 3 employees earning 8 and under 9 cents, 2 employees earning 9 and under 10 cents, and 5 employees earning 10 and under 12 cents per hour.¹⁰ Including 7 employees earning 10 and under 12 cents per hour.¹¹ Including 2 employees earning 10 and under 12 cents per hour.¹² Including 6 employees earning 8 and under 9 cents and 8 employees earning 10 and under 12 cents per hour.¹³ Including 11 employees earning 10 and under 12 cents per hour.¹⁴ Including 2 employees earning 9 and under 10 cents and 11 employees earning 10 and under 12 cents per hour.¹⁵ Including 2 employees earning 6 and under 7 cents and 2 employees earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Number of employ- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earn- ings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Bundlers—Con. 7 plants.....	1911	131	62.0	\$0.197	\$12.20	.....	1	16	32	80	2	.....	.....	.....	.....	.....	
	1912	132	62.0	.193	11.94	.....	.....	16	90	24	2	.....	.....	.....	.....	.....	
7 plants.....	1912	129	61.6	.194	11.96	.....	.....	2	101	24	2	.....	.....	.....	.....	.....	
	1913	136	61.4	.228	14.05	.....	.....	2	.....	120	12	2	.....	.....	.....	.....	
Laborers: 10 plants.....	1907	296	68.3	.153	10.44	27	173	96	.....	.....	.....	.....	.....	.....	.....	.....	
	1908	227	64.8	.153	9.93	39	90	98	.....	.....	.....	.....	.....	.....	.....	.....	
	1909	324	67.8	.150	10.17	50	182	92	.....	.....	.....	.....	.....	.....	.....	.....	
	1910	424	67.2	.161	10.81	40	31	353	.....	32	.....	.....	.....	.....	.....	.....	
15 plants.....	1910	511	67.8	.160	10.86	51	70	390	.....	.....	.....	.....	.....	.....	.....	.....	
	1911	355	66.0	.160	10.59	44	26	285	.....	.....	.....	.....	.....	.....	.....	.....	
17 plants.....	1911	390	65.5	.159	10.40	44	61	285	.....	.....	.....	.....	.....	.....	.....	.....	
	1912	424	65.9	.159	10.52	44	54	326	.....	.....	.....	.....	.....	.....	.....	.....	
21 plants.....	1912	536	65.0	.160	10.38	77	60	385	14	.....	.....	.....	.....	.....	.....	.....	
	1913	705	64.3	.178	11.51	8	52	343	237	65	.....	.....	.....	.....	.....	.....	

PER CENT.

Stoekers: 8 plants.....	1907	93	64.4	\$0.178	\$11.43	2.2	6.5	54.8	12.9	23.7	.....	.....	.....	.....	.....	.....
	1908	90	64.1	.167	10.72	15.6	13.3	37.8	24.4	8.9	.....	.....	.....	.....	.....	.....
	1909	88	64.2	.168	10.79	* 3.4	36.4	26.1	20.5	11.4	2.3	.....	.....	.....	.....	.....
	1910	87	64.3	.190	12.17	2.3	5.7	32.2	27.6	32.2	.....	.....	.....	.....	.....	.....
13 plants.....	1910	170	59.0	.250	14.24	1.2	2.9	16.5	14.1	30.0	13.5	9.4	12.4	.....	.....	.....
	1911	164	59.6	.230	13.41	1.2	2.4	19.5	17.1	26.8	11.6	21.3	.....	.....	.....	.....
15 plants.....	1911	211	60.9	.217	12.94	.9	1.9	30.8	18.0	22.7	9.0	16.6	.....	.....	.....	.....
	1912	217	60.9	.231	13.79	.9	2.3	29.5	6.9	20.3	17.1	17.1	.....	.....	.....	.....
17 plants.....	1912	215	60.9	.232	13.88	.9	2.3	26.0	8.8	26.5	18.1	17.2	.....	.....	.....	.....
	1913	226	60.6	.253	15.12	1.3	.....	4	26.1	26.5	21.2	19.0	5.3	.....	.....	.....
Heaters: 15 plants.....	1907	121	63.9	.508	32.35	.....	.....	.....	.....	8.3	20.7	14.9	35.5	10.7	9.9	.....
	1908	112	63.9	.467	29.66	.....	.....	.....	.....	9	17.0	12.5	31.3	22.3	9.8	6.3
	1909	112	64.0	.488	31.06	.....	.....	.....	.....	3.6	3.6	11.6	30.4	35.7	9.8	5.4
	1910	142	64.2	.502	31.87	.....	.....	.....	.....	7.7	16.9	25.4	31.0	8.5	10.6	.....
25 plants.....	1910	217	62.9	.507	31.73	.....	.....	.....	.....	7.4	18.0	25.3	26.3	14.3	8.8	.....
	1911	180	62.6	.512	31.97	.....	.....	.....	.....	7.2	20.6	17.2	30.6	14.4	10.0	.....
26 plants.....	1911	184	62.7	.510	31.87	.....	.....	.....	.....	7.1	20.7	18.5	29.9	14.1	9.8	.....
	1912	199	62.4	.482	29.84	.....	.....	2.0	.....	11.6	22.6	18.1	20.6	18.6	6.5	.....
26 plants.....	1912	196	61.8	.499	30.60	.....	.....	.....	.....	11.7	21.9	18.4	20.9	18.9	8.2	.....
	1913	211	61.7	.560	34.25	.....	.....	.....	.....	1.4	12.3	23.2	22.3	24.2	16.1	.....
Heaters' helpers: 14 plants.....	1907	167	65.3	.246	15.77	6.0	16.8	21.6	16.8	18.0	13.8	4.8	1.2	1.2	.....	.....
	1908	153	65.1	.227	14.50	.....	9.2	21.6	23.5	19.0	9.8	12.4	3.3	1.3	.....	.....
	1909	151	65.0	.234	14.87	9.3	4.0	12.6	20.5	21.2	17.9	10.6	2.6	.....	1.3	.....
	1910	166	65.2	.262	16.70	.....	6.0	12.7	6.0	36.1	15.7	10.8	6.6	4.8	1.2	.....
24 plants.....	1910	295	62.6	.273	16.77	.7	5.1	7.1	7.1	30.2	16.6	25.1	3.7	3.7	.7	.....
	1911	281	62.5	.262	16.05	.....	4.6	8.9	8.5	34.5	16.0	20.3	3.6	3.6	.....	.....
25 plants.....	1911	293	62.7	.259	15.94	.....	5.8	9.2	8.2	34.1	16.0	19.8	3.4	3.4	.....	.....
	1912	319	62.2	.260	16.01	.....	6.6	5.6	11.0	29.8	20.1	20.1	5.0	.6	1.3	.....
24 plants.....	1912	318	61.9	.251	15.41	.....	6.6	5.7	13.5	30.8	20.1	20.8	2.5	.....	.....	.....
	1913	324	62.0	.273	16.77	.....	4.0	3.7	9.0	32.7	20.4	23.8	5.9	.6	.....	.....

¹ Including 6.7 per cent earning 10 and under 12 cents per hour.² Including 2.3 per cent earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Chargers and helpers:																	
12 plants....	1907	104	65.5	\$0.173	\$11.34	1.9	46.2	28.8	7.7	9.6	4.8	1.0	.....	.....	.....	.....	.....
	1908	102	65.6	.161	10.56	2.9	56.9	24.5	10.8	4.9	.....	.....	.....	.....	.....	.....	.....
	1909	107	65.9	.161	10.60	15.0	47.7	18.7	11.2	7.5	.....	.....	.....	.....	.....	.....	.....
	1910	110	66.3	.181	11.87	.....	21.8	45.5	16.4	9.1	7.3	.....	.....	.....	.....	.....	.....
18 plants....	1910	179	65.3	.192	12.40	.....	13.4	34.6	24.6	14.0	13.4	.....	.....	.....	.....	.....	.....
	1911	177	65.1	.185	12.02	.....	21.5	39.0	13.6	21.5	3.4	1.1	.....	.....	.....	.....	.....
19 plants....	1911	185	64.8	.184	11.90	.....	22.7	39.5	13.0	20.5	3.2	1.1	.....	.....	.....	.....	.....
	1912	182	65.0	.192	12.45	.....	12.6	47.8	9.9	15.4	13.2	1.1	.....	.....	.....	.....	.....
19 plants....	1912	181	64.3	.199	12.72	.....	12.2	38.7	11.0	22.1	14.9	1.1	.....	.....	.....	.....	.....
	1913	185	63.7	.224	14.17	.....	.5	14.6	28.1	35.1	12.4	5.4	3.2	0.5	.....	.....	.....
Drag downs:																	
11 plants....	1907	86	64.4	.271	17.31	.....	10.5	4.7	11.6	22.1	16.3	23.3	7.0	4.7	.....	.....	.....
	1908	82	63.9	.246	15.58	12.2	12.2	9.8	6.1	18.3	15.9	18.3	.....	7.3	.....	.....	.....
	1909	83	64.0	.250	15.93	.....	19.3	7.2	6.0	16.9	24.1	21.7	4.8	.....	.....	.....	.....
	1910	89	64.0	.286	18.19	.....	6.7	6.7	15.7	11.2	23.6	27.0	4.5	.....	.....	.....	4.5
19 plants....	1910	132	65.1	.269	17.44	.....	4.5	6.1	15.2	25.8	20.5	22.0	3.0	.....	.....	.....	3.0
	1911	123	64.9	.262	16.88	3.3	4.9	6.5	4.1	34.1	28.5	12.2	3.3	.....	.....	.....	3.3
20 plants....	1911	127	64.7	.262	16.78	3.1	4.7	6.3	3.9	34.6	29.1	11.8	3.1	.....	.....	.....	3.1
	1912	130	64.3	.253	16.12	1.5	15.4	3.1	7.7	23.8	20.8	21.5	6.2	.....	.....	.....	.....
20 plants....	1912	121	63.8	.251	15.81	1.7	11.6	3.3	8.3	26.4	25.6	19.8	3.3	.....	.....	.....	.....
	1913	124	63.1	.281	17.57	3.2	.....	.8	7.3	30.6	21.0	28.2	8.9	.....	.....	.....	.....
Roll engineers:																	
13 plants....	1907	58	72.3	.226	16.29	.....	.....	6.9	8.6	56.9	27.6	.....	.....	.....	.....	.....	.....
	1908	56	71.4	.221	15.76	.....	.....	7.1	10.7	62.5	19.6	.....	.....	.....	.....	.....	.....
	1909	56	71.5	.217	15.52	.....	7.1	.....	21.4	53.6	17.9	.....	.....	.....	.....	.....	.....
	1910	58	71.7	.230	16.52	.....	.....	6.9	6.9	62.1	24.1	.....	.....	.....	.....	.....	.....
22 plants....	1910	99	72.0	.229	16.46	.....	.....	4.0	10.1	59.6	26.3	.....	.....	.....	.....	.....	.....
	1911	95	70.4	.228	16.07	.....	.....	6.3	8.4	62.1	23.2	.....	.....	.....	.....	.....	.....
	1912	97	70.0	.229	16.05	.....	.....	5.2	8.2	64.9	21.6	.....	.....	.....	.....	.....	.....
20 plants....	1912	93	70.1	.228	16.02	.....	.....	5.4	8.6	65.6	20.4	.....	.....	.....	.....	.....	.....
	1913	97	70.5	.249	17.56	.....	.....	4.1	.....	30.9	58.8	6.2	.....	.....	.....	.....	.....
Rollers, 8-inch:																	
7 plants....	1907	16	62.5	1.089	68.27	.....	.....	.....	.....	.....	.....	.....	.....	6.3	18.8	75.0	.....
	1908	16	62.6	.970	60.88	.....	.....	.....	.....	.....	.....	6.3	.....	6.3	25.0	62.5	.....
	1909	16	62.5	.956	60.31	.....	.....	.....	.....	.....	.....	6.3	12.5	.....	12.5	68.8	.....
	1910	15	62.7	1.028	64.69	.....	.....	.....	.....	.....	.....	.....	20.0	6.7	13.3	60.0	.....
11 plants....	1910	28	59.0	.961	57.71	.....	.....	.....	.....	.....	.....	.....	17.9	10.7	17.9	53.6	.....
	1911	29	58.0	.929	55.00	.....	.....	.....	.....	.....	.....	.....	6.9	17.2	24.1	51.7	.....
	1912	29	58.0	.887	52.81	.....	.....	.....	3.4	.....	.....	.....	13.8	13.8	10.3	58.6	.....
	1913	29	58.1	1.070	62.33	.....	.....	.....	.....	.....	.....	3.4	.....	17.2	6.9	72.4	.....
Rollers, 9-inch:																	
6 plants....	1907	12	66.7	1.038	69.72	.....	.....	.....	.....	.....	.....	.....	.....	16.7	16.7	66.7	.....
	1908	11	67.7	.809	55.06	.....	.....	.....	.....	.....	.....	.....	9.1	18.2	18.2	54.5	.....
	1909	11	67.1	.832	56.25	.....	.....	.....	.....	.....	.....	.....	18.2	.....	27.3	54.5	.....
	1910	12	67.0	.969	65.03	.....	.....	.....	.....	.....	.....	.....	8.3	.....	41.7	50.0	.....
11 plants....	1910	24	63.2	.943	60.20	.....	.....	.....	.....	.....	.....	.....	4.2	4.2	33.3	58.3	.....
	1911	22	63.5	.825	53.07	.....	.....	.....	.....	.....	.....	4.5	9.1	9.1	18.2	59.1	.....
	1912	23	63.1	.808	51.36	.....	.....	.....	.....	.....	.....	.....	.....	17.4	17.4	65.2	.....
10 plants....	1912	22	63.0	.812	51.60	.....	.....	.....	.....	.....	.....	.....	.....	27.3	9.1	63.6	.....
	1913	22	62.8	.932	59.16	.....	.....	.....	.....	.....	.....	.....	4.5	9.1	13.6	72.7	.....
Rollers, 10-inch:																	
5 plants....	1907	12	67.3	1.114	76.01	.....	.....	.....	.....	.....	.....	.....	.....	16.7	.....	83.3	.....
	1908	12	67.3	.974	66.06	.....	.....	.....	.....	.....	.....	.....	.....	.....	25.0	75.0	.....
	1909	12	67.0	1.095	73.38	.....	.....	.....	.....	.....	.....	.....	.....	8.3	.....	91.7	.....
	1910	12	67.0	1.183	79.72	.....	.....	.....	.....	.....	.....	.....	.....	8.3	.....	91.7	.....

¹ Including 1 per cent earning 10 and under 12 cents per hour.² Including 2.4 per cent earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—**BAR MILLS**—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earn- ings.	Employees earning each classified rate of wage per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Rollers,10-inch— Concluded. 7 plants.....	1910	18	65.0	\$1.069	\$70.38	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.6	94.4	
	1911	18	63.6	.967	56.28	.....	.....	.....	.....	.....	.....	.....	5.6	5.6	5.6	83.3	
	1912	18	63.6	1.066	68.13	.....	.....	.....	.....	.....	.....	.....	.....	5.6	.....	94.4	
7 plants.....	1912	18	62.1	1.068	67.18	.....	.....	.....	.....	.....	.....	.....	.....	5.6	.....	94.4	
	1913	18	61.9	1.132	71.56	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100.0	
Rollers,12-inch: 7 plants.....	1907	15	68.1	.900	61.69	.....	.....	.....	.....	.....	.....	.....	.....	13.3	13.3	73.3	
	1908	13	69.9	.801	55.63	.....	.....	.....	.....	.....	.....	7.7	.....	15.4	15.4	61.5	
	1909	13	69.8	.864	60.16	.....	.....	.....	.....	.....	.....	.....	.....	15.4	15.4	69.2	
	1910	15	68.5	.888	61.05	.....	.....	.....	.....	.....	.....	6.7	.....	.....	20.0	73.3	
13 plants.....	1910	27	64.4	.864	56.26	.....	.....	.....	.....	.....	.....	3.7	.....	3.7	22.2	70.4	
	1911	24	64.9	.844	54.85	.....	.....	.....	.....	.....	.....	.....	.....	16.7	12.5	70.8	
	1912	26	64.3	.831	53.75	.....	.....	.....	.....	.....	3.8	.....	.....	19.2	7.7	69.2	
12 plants.....	1912	27	64.7	.837	54.44	.....	.....	.....	.....	.....	.....	.....	.....	18.5	14.8	66.7	
	1913	28	64.4	.961	61.47	.....	.....	.....	.....	.....	.....	.....	.....	.....	14.3	85.7	
Rollers,13-inch, 14-inch, and 15-inch: 3 plants.....	1910	7	60.6	.835	48.77	.....	.....	.....	.....	.....	.....	.....	28.6	.....	.....	71.4	
	1911	7	60.6	.676	39.73	.....	.....	.....	.....	.....	.....	.....	28.6	.....	57.1	14.3	
	1912	7	60.6	.709	42.11	.....	.....	.....	.....	.....	.....	.....	.....	28.6	42.9	28.6	
4 plants.....	1912	9	63.1	.637	38.91	.....	.....	.....	.....	.....	.....	22.2	.....	22.2	33.3	22.2	
	1913	9	62.7	.676	40.90	.....	.....	.....	.....	.....	.....	22.2	22.2	.....	.....	55.6	
Rollers,16-inch: 4 plants.....	1907	7	63.3	.897	58.11	.....	.....	.....	.....	.....	.....	.....	.....	.....	42.9	57.1	
	1908	7	63.3	.838	56.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	42.9	57.1	
	1909	7	63.3	.850	54.77	.....	.....	.....	.....	.....	.....	.....	.....	28.6	.....	71.4	
	1910	9	62.3	1.074	68.32	.....	.....	.....	.....	.....	.....	.....	.....	11.1	22.2	66.7	
	1911	11	62.6	1.007	64.13										9.1	18.2	72.7
5 plants.....	1911	8	63.9	1.081	70.85	.....	.....	.....	.....	.....	.....	.....	.....	.....	25.0	75.0	
	1912	12	62.8	.929	59.52	.....	.....	.....	.....	.....	.....	.....	16.7	.....	16.7	66.7	
6 plants.....	1911	12	62.4	.814	51.35	.....	.....	.....	.....	.....	.....	.....	.....	.....	50.0	50.0	
	1912	11	61.7	.787	48.92	.....	.....	.....	.....	.....	.....	.....	.....	.....	54.5	45.5	
5 plants.....	1913	11	61.5	.998	62.00	.....	.....	.....	.....	.....	.....	.....	.....	9.1	.....	90.9	
	1907	3	61.0	.942	58.06	.....	.....	.....	.....	.....	.....	.....	.....	.....	33.3	66.7	
Rollers,18-inch: 2 plants.....	1908	4	58.3	.684	39.66	.....	.....	.....	.....	.....	.....	25.0	.....	.....	.....	75.0	
	1909	4	58.3	.753	43.79	.....	.....	.....	.....	.....	.....	.....	25.0	.....	.....	75.0	
	1910	4	58.3	.860	49.92	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100.0	
	1910	9	60.8	.669	40.08	.....	.....	.....	.....	.....	.....	22.2	.....	22.2	.....	55.6	
5 plants.....	1911	8	60.3	.771	46.69	.....	.....	.....	.....	.....	.....	.....	25.0	.....	.....	75.0	
	1912	9	59.1	.751	44.76	.....	.....	.....	.....	.....	.....	.....	11.1	.....	33.3	55.6	
	1912	12	58.7	.886	52.19	.....	.....	.....	.....	.....	.....	.....	8.3	.....	25.0	66.7	
7 plants.....	1913	13	58.8	.975	57.83	.....	.....	.....	.....	.....	.....	.....	.....	.....	15.4	84.6	
	1907	65	65.5	1.013	66.88	.....	.....	.....	.....	.....	.....	.....	.....	7.7	20.0	72.3	
Rollers, all sizes: 13 plants.....	1908	63	65.7	.878	57.83	.....	.....	.....	.....	.....	.....	4.8	1.6	7.9	22.2	63.5	
	1909	63	65.5	.917	60.40	.....	.....	.....	.....	.....	.....	1.6	7.9	7.9	11.1	71.4	
	1910	67	65.2	1.010	66.23	.....	.....	.....	.....	.....	.....	1.5	6.0	3.0	19.4	70.1	
	1910	124	62.4	.928	58.21	.....	.....	.....	.....	.....	.....	2.4	6.5	6.5	17.7	66.9	
22 plants.....	1911	116	62.0	.882	55.26	.....	.....	.....	.....	.....	.....	.9	7.8	10.3	18.1	62.9	
	1911	120	62.0	.873	54.65	.....	.....	.....	.....	.....	.....	.8	9.2	10.0	17.5	62.5	
23 plants.....	1912	124	61.7	.860	53.63	.....	.....	.....	.....	0.8	.8	.....	4.0	12.9	16.9	64.5	
	1912	128	61.6	.863	53.60	.....	.....	.....	.....	.8	.....	1.6	3.9	12.5	18.0	63.3	
24 plants.....	1913	130	61.5	.989	60.71	.....	.....	.....	.....	.....	.....	2.3	2.3	6.2	8.5	80.8	

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employ- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earn- ings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Roughers, 8-inch: 7 plants.....	1907	44	61.2	\$0.397	\$24.40						15.9	50.0	18.2	15.9			
	1908	44	61.2	.373	22.76						31.8	6.8	61.4				
	1909	44	61.0	.363	22.28						13.6	63.6	20.5	2.3			
	1910	41	61.2	.393	24.14						22.0	39.0	17.1	22.0			
11 plants.....	1910	84	57.5	.368	21.49						32.1	31.0	11.9	17.9			
	1911	81	56.0	.347	19.68						7.4	18.5	53.1	16.0	4.9		
	1912	79	56.0	.336	19.03						7.6	35.4	29.1	26.6	1.3		
	1913	79	56.4	.391	22.32				2.5	8.9	15.2	30.4	17.7	24.1	1.3		
Roughers, 9-inch: 7 plants.....	1907	58	56.3	.564	29.94						5.2	22.4	20.7	13.8		37.9	
	1908	54	60.4	.392	23.30					11.1		37.0	37.0	14.8			
	1909	54	56.5	.422	23.20						16.7	22.2	29.6	31.5			
	1910	58	56.9	.454	25.14						20.7	6.9	34.5	27.6	10.3		
12 plants.....	1910	88	58.2	.449	25.69						18.2	6.8	43.2	25.0	6.8		
	1911	83	57.4	.414	23.87						16.9	34.9	28.9	14.5	4.8		
	1912	84	57.2	.429	24.17						20.2	16.7	26.2	27.4	9.5		
11 plants.....	1912	82	57.0	.433	24.35						18.3	17.1	26.8	28.0	9.8		
	1913	83	56.6	.484	27.20						10.8	13.3	30.1	26.5	9.6	9.6	
Roughers, 10-inch: 5 plants.....	1907	33	64.4	.441	29.11					24.2		9.1	12.1	54.5			
	1908	37	65.2	.323	21.09					21.6	16.2	40.5	21.6				
	1909	37	65.0	.370	23.73						32.4	37.8	18.9	10.8			
	1910	38	64.8	.395	25.40						23.7	31.6	15.8	28.9			
7 plants.....	1910	51	64.8	.412	26.45							54.9	23.5	21.6			
	1911	51	63.3	.366	22.72						5.9	56.9	33.3	3.9			
	1912	51	63.3	.399	24.69						11.8	39.2	35.3	13.7			
7 plants.....	1912	53	61.7	.374	22.57						26.4	37.7	22.6	13.2			
	1913	53	61.5	.413	25.17							52.8	37.7	9.4			
Roughers, 12- inch: 8 plants.....	1907	62	64.5	.416	27.10						9.7	38.7	45.2	6.5			
	1908	55	64.1	.301	19.45					20.6	32.7	40.0	7.3				
	1909	54	67.7	.351	23.77						16.7	72.2	11.1				
	1910	58	67.5	.400	27.05							58.6	41.4				
14 plants.....	1910	89	64.6	.397	25.80						11.2	43.8	41.6	3.4			
	1911	81	65.3	.361	21.35						27.2	51.9	12.3	8.6			
	1912	85	64.4	.391	25.24					4.7	8.2	54.1	7.1	25.9			
13 plants.....	1912	81	64.4	.401	25.84						8.6	56.8	7.4	27.2			
	1913	84	63.8	.447	28.44						4.8	19.0	58.3	15.5	2.4		
Roughers, 13- inch, 14-inch, and 15-inch: 1 plant.....	1907	12	60.0	.289	17.34						100.0						
	1908	12	60.0	.250	15.00						100.0						
	1909	12	60.0	.262	15.72						100.0						
	1910	12	60.0	.289	17.34						100.0						
5 plants.....	1910	48	61.5	.379	22.89						25.0	45.8	22.9	6.3			
	1911	46	61.2	.338	20.51						30.4	54.3	15.2				
	1912	47	61.4	.364	22.23						25.5	23.4	51.1				
	1913	41	61.8	.386	23.30						17.1	43.9	26.8	12.2			
Roughers, 16- inch: 5 plants.....	1907	36	63.0	.349	22.20					22.2		66.7	11.1				
	1908	32	63.1	.349	22.23					25.0		31.3	43.8				
	1909	34	63.4	.347	22.22					23.5		35.3	41.2				
	1910	42	62.2	.390	24.65					33.3		14.3	33.3	19.0			
	1911	34	63.4	.415	26.55					23.5	11.8		29.4	35.3			

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Num- ber of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earn- ings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Roughers, 16- inch—Con. 6 plants.....	1911	42	62.3	\$0.415	\$26.05	.....	.....	.....	19.0	9.5	4.8	38.1	28.6	.....	.....	.....	
	1912	40	61.8	.381	23.63	.....	.....	.....	35.0	.....	20.0	30.0	5.0	10.0	.....	.....	
5 plants.....	1912	32	61.0	.384	23.50	.....	.....	.....	43.8	.....	.....	37.5	6.3	12.5	.....	.....	
	1913	34	61.4	.435	26.85	.....	.....	.....	.....	23.5	.....	41.2	35.3	.....	.....	.....	
Roughers, 18- inch: 2 plants.....	1907	7	62.0	.384	23.68	.....	.....	.....	.....	.....	85.7	.....	14.3	.....	.....	.....	
	1908	8	60.5	.348	20.83	.....	.....	.....	.....	.....	75.0	25.0	.....	.....	.....	.....	
	1909	8	60.5	.380	22.73	.....	.....	.....	.....	.....	75.0	12.5	12.5	.....	.....	.....	
	1910	8	60.5	.523	31.55	.....	.....	.....	.....	.....	.....	.....	100.0	.....	.....	.....	
5 plants.....	1910	23	59.4	.414	24.92	.....	.....	.....	26.1	.....	.....	26.1	47.8	.....	.....	.....	
	1911	19	60.3	.444	26.73	.....	.....	.....	.....	10.5	31.6	.....	57.9	.....	.....	.....	
	1912	22	58.9	.465	27.34	.....	.....	.....	.....	9.1	.....	68.2	22.7	.....	.....	.....	
7 plants.....	1912	31	58.9	.494	29.04	.....	.....	.....	.....	6.5	.....	51.6	41.9	.....	.....	.....	
	1913	33	58.6	.500	29.42	.....	.....	.....	.....	12.1	.....	36.4	45.5	6.1	.....	.....	
Roughers, all sizes: 15 plants....	1907	252	61.5	.434	26.28	.....	.....	.....	6.3	11.1	36.5	22.2	15.1	.....	8.7	.....	
	1908	242	62.5	.343	21.35	.....	.....	.....	13.6	20.7	31.4	51.0	3.3	.....	.....	.....	
	1909	243	62.4	.368	22.72	.....	.....	.....	3.3	19.8	45.7	21.8	9.5	.....	.....	.....	
	1910	257	62.3	.407	25.21	.....	.....	.....	5.4	16.3	28.0	27.6	20.2	2.3	.....	.....	
25 plants.....	1910	425	61.0	.402	24.51	.....	.....	.....	6.1	15.3	29.9	30.1	17.2	1.4	.....	.....	
	1911	395	60.6	.376	22.65	.....	.....	.....	3.5	18.7	44.1	20.5	12.2	1.0	.....	.....	
26 plants.....	1911	403	60.5	.377	22.68	.....	.....	.....	3.5	18.4	43.7	21.6	11.9	1.0	.....	.....	
	1912	408	60.2	.389	23.36	.....	.....	.....	5.9	17.6	29.9	28.9	14.7	2.9	.....	.....	
26 plants.....	1912	405	59.9	.393	23.42	.....	.....	.....	4.9	19.3	28.1	27.9	16.8	3.0	.....	.....	
	1913	407	59.8	.436	26.00	.....	.....	0.5	1.7	10.8	23.8	35.6	22.4	3.2	2.0	.....	
Catchers, 8-inch: 3 plants.....	1907	18	56.6	.362	20.48	.....	.....	.....	11.1	.....	66.7	22.2	.....	.....	.....	.....	
	1908	18	56.6	.350	19.66	.....	.....	.....	11.1	11.1	33.3	44.4	.....	.....	.....	.....	
	1909	18	56.6	.335	18.90	.....	.....	.....	.....	11.1	88.9	.....	.....	.....	.....	.....	
	1910	17	56.4	.371	20.97	.....	.....	.....	5.9	.....	82.4	11.8	.....	.....	.....	.....	
6 plants.....	1910	26	54.3	.351	19.14	.....	.....	.....	11.5	11.5	65.4	11.5	.....	.....	.....	.....	
	1911	27	54.1	.319	17.32	.....	.....	.....	7.4	7.4	.....	85.2	.....	.....	.....	.....	
	1912	25	54.1	.340	18.48	.....	4.0	.....	4.0	16.0	48.0	28.0	.....	.....	.....	.....	
	1913	25	54.3	.400	21.98	.....	.....	4.0	8.0	8.0	24.0	40.0	16.0	.....	.....	.....	
Catchers, 9-inch: 2 plants.....	1907	12	58.0	.474	27.30	.....	.....	.....	.....	.....	.....	33.3	66.7	.....	.....	.....	
	1908	12	58.0	.455	25.94	.....	.....	.....	.....	.....	33.3	.....	66.7	.....	.....	.....	
	1909	12	58.0	.495	28.68	.....	.....	.....	.....	.....	33.3	66.7	.....	.....	.....	.....	
	1910	12	58.0	.526	30.37	.....	.....	.....	.....	.....	33.3	66.7	.....	.....	.....	.....	
4 plants.....	1910	17	56.5	.499	28.19	.....	.....	.....	.....	.....	.....	52.9	47.1	.....	.....	.....	
	1911	17	56.8	.440	24.76	.....	.....	.....	.....	11.8	41.2	.....	47.1	.....	.....	.....	
	1912	15	55.7	.508	27.86	.....	.....	.....	.....	26.7	20.0	.....	53.3	.....	.....	.....	
3 plants.....	1912	13	54.3	.546	29.55	.....	.....	.....	.....	15.4	23.1	.....	61.5	.....	.....	.....	
	1913	13	54.9	.619	33.98	.....	.....	.....	.....	.....	15.4	23.1	.....	61.5	.....	.....	
Catchers, 10-inch: 1 plant.....	1907	10	72.0	.352	25.35	.....	.....	.....	.....	.....	90.0	10.0	.....	.....	.....	.....	
	1908	10	72.0	.377	27.14	.....	.....	.....	.....	.....	70.0	30.0	.....	.....	.....	.....	
	1909	10	71.5	.379	27.06	.....	.....	.....	.....	.....	70.0	30.0	.....	.....	.....	.....	
	1910	10	71.5	.456	32.63	.....	.....	.....	.....	.....	.....	100.0	.....	.....	.....	.....	
3 plants.....	1910	16	66.8	.383	26.24	.....	.....	.....	25.0	12.5	.....	62.5	.....	.....	.....	.....	
	1911	16	65.9	.365	24.46	.....	.....	6.3	6.3	18.8	18.8	50.0	.....	.....	.....	.....	
	1912	16	65.9	.419	28.23	.....	.....	.....	.....	25.0	12.5	50.0	12.5	.....	.....	.....	
2 plants.....	1912	18	66.4	.449	30.49	.....	.....	.....	.....	11.1	11.1	66.7	11.1	.....	.....	.....	
	1913	18	66.4	.484	33.12	.....	.....	.....	.....	16.7	5.6	16.7	55.6	5.6	.....	.....	

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Catchers, 12-inch: 5 plants.....	1907	16	65.6	\$0.446	\$29.52					25.0		12.5	6.3	56.3			
	1908	17	64.1	.317	20.42						41.2	52.9			5.9		
	1909	17	63.9	.349	22.61					23.5	11.8	47.1	11.8			5.9	
	1910	18	63.7	.411	26.37						22.2	22.2	44.4	11.1			
10 plants.....	1910	28	62.5	.403	25.40						21.4	32.1	32.1	14.3			
	1911	27	62.1	.368	22.90					7.4	14.8	55.6	18.5			3.7	
	1912	29	61.7	.348	21.52					13.8	20.7	41.4	17.2	6.9			
9 plants.....	1912	25	61.1	.372	22.88						24.0	48.0	20.0	8.0			
	1913	25	61.0	.416	25.26						16.0	32.0	28.0	24.0			
Catchers, 13- inch, 14-inch, and 15-inch: 3 plants.....	1910	7	61.7	.458	27.63							28.6	28.6	42.9			
	1911	7	61.7	.392	23.92							71.4	28.6				
	1912	7	61.7	.407	24.70							57.1	42.9				
	1913	7	61.1	.461	27.58							28.6	42.9	28.6			
Catchers, 16- inch: 4 plants.....	1907	10	64.5	.636	41.02							40.0	20.0			40.0	
	1908	9	65.0	.499	32.46						22.2	33.3		22.2		22.2	
	1909	9	65.0	.552	36.02							44.4		22.2		33.3	
	1910	12	64.6	.547	35.32								33.3	33.3	33.3		
	1911	9	65.0	.664	43.23								44.4	22.2	11.1	22.2	
	1912	9	64.5	.511	33.00								77.8			22.2	
3 plants.....	1912	7	64.4	.418	26.90								100.0				
	1913	8	64.4	.499	32.12								75.0	25.0			
Catchers, 18- inch: 2 plants.....	1907	3	61.0	.423	25.96							33.3	33.3	33.3			
	1908	4	58.3	.314	18.51							50.0	50.0				
	1909	4	58.3	.346	20.40							25.0	50.0	25.0			
	1910	4	58.3	.466	27.72								50.0		50.0		
5 plants.....	1910	9	58.6	.375	22.36				22.2			44.4	11.1	22.2			
	1911	8	59.0	.369	21.99					12.5	25.0	25.0	12.5	25.0			
	1912	9	58.0	.391	22.87					11.1		44.4	22.2	22.2			
7 plants.....	1912	13	57.5	.467	27.01					7.7		30.8	30.8	15.4		15.4	
	1913	14	57.3	.463	26.76					14.3		14.3	28.6	28.6		14.3	
Catchers, all sizes: 11 plants.....	1907	69	62.5	.442	27.68					8.7		40.6	18.8	26.1		5.8	
	1908	70	62.0	.381	23.57					2.9	18.6	44.3	15.7	14.3	1.4	2.9	
	1909	70	61.9	.400	24.93					5.7	7.1	52.9	14.3	14.3		5.7	
	1910	73	62.0	.452	28.17					1.4	5.5	27.4	38.4	21.9	5.5		
20 plants.....	1910	115	60.2	.419	25.45				1.7	6.1	9.6	27.8	33.0	18.3	3.5		
	1911	111	59.9	.392	23.70				2.7	5.4	9.9	49.5	18.0	10.8	.9	2.7	
	1912	110	59.7	.399	23.92				0.9		5.5	16.4	33.6	29.1	5.5	7.3	
20 plants.....	1912	108	59.4	.415	24.81				9	1.9	13.0	34.3	35.2	5.6	7.4	1.9	
	1913	110	59.4	.462	27.67					9	3.6	8.2	19.1	32.7	25.5	.9	
Stranders, 8-inch: 7 plants.....	1907	56	62.6	.305	19.11					3.6	35.7	19.6	19.6	10.7	10.7		
	1908	56	62.8	.267	16.77	1.8	1.8				32.1	35.7	28.6				
	1909	56	62.7	.274	17.22			1.8	1.8		32.1	39.3	25.0				
	1910	54	62.8	.305	19.11				3.7		11.1	44.4	33.3	7.4			
11 plants.....	1910	75	61.6	.275	17.00	1.5	2.7	6.7			20.0	34.7	25.3	5.3			
	1911	73	60.4	.249	15.12	1.5	2.7	5.5	15.1	27.4	19.2	27.4					
	1912	73	60.4	.244	14.88	1.6	2.7	5.5	9.6	19.2	35.6	20.5					
11 plants.....	1912	67	60.6	.236	14.53	2.7	3.0	6.0	10.4	20.9	38.8	13.4					
	1913	66	60.7	.202	18.54	10.6			1.5	3.0	18.2	13.6	37.9	15.2			

¹ Including 2.7 per cent earning 10 and under 12 cents per hour.² Including 3 per cent earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Stranders, 9-inch: 6 plants.....	1907	41	56.2	\$0.395	\$20.75	.....	.....	4.9	.....	22.0	14.6	14.6	.....	22.0	22.0	.....
	1908	39	56.4	.276	15.10	5.1	.....	23.1	5.1	15.4	51.3	.....	.....	.....	.....	.....
	1909	39	56.3	.287	15.75	2.6	2.6	.....	20.5	25.6	46.2	.....	.....	.....	.....	.....
	1910	39	56.3	.332	18.28	.....	5.1	.....	5.1	23.1	66.7	.....	.....	.....	.....	.....
	1911	64	59.1	.289	16.64	.....	3.1	.....	9.4	29.7	14.1	43.8	.....	.....	.....	.....
10 plants....	1911	62	58.6	.247	14.39	.....	4.8	4.8	17.7	29.0	29.0	11.3	4.8	.....	.....	.....
	1912	61	58.0	.235	13.44	3.3	6.6	9.8	14.8	23.0	14.8	27.9	.....	.....	.....	.....
	1912	57	57.6	.241	13.68	3.5	.....	10.5	15.8	24.6	15.8	29.8	.....	.....	.....	.....
Stranders, 10-inch: 5 plants.....	1913	57	56.9	.293	16.33	.....	.....	3.5	15.8	24.6	7.0	38.6	10.5	.....	.....	.....
	1907	43	55.1	.354	19.47	.....	.....	.....	9.3	.....	.....	90.7	.....	.....	.....	.....
7 plants.....	1908	43	55.1	.320	17.08	.....	.....	.....	9.3	18.6	4.7	67.4	.....	.....	.....	.....
	1909	43	55.0	.378	19.95	.....	.....	.....	.....	23.3	48.8	27.9	.....	.....	.....	.....
	1910	43	55.0	.444	23.09	.....	.....	.....	.....	9.3	.....	41.9	.....	48.8	.....	.....
	1910	57	57.7	.390	21.13	.....	.....	7.0	.....	14.0	10.5	31.6	.....	36.8	.....	.....
7 plants.....	1911	57	58.7	.322	17.35	.....	5.3	1.8	8.8	15.8	15.8	15.8	36.8	.....	.....	.....
	1912	57	56.7	.370	19.71	.....	.....	.....	1.8	19.3	26.3	15.8	15.8	21.1	.....	.....
	1912	55	55.2	.372	19.39	.....	.....	.....	1.8	27.3	16.4	16.4	16.4	21.8	.....	.....
Stranders, 12-inch: 3 plants.....	1913	55	55.1	.392	20.77	.....	.....	.....	3.6	3.6	21.8	32.7	16.4	21.8	.....	.....
	1907	13	69.0	.352	24.53	.....	.....	.....	.....	23.1	15.4	61.5	.....	.....	.....	.....
9 plants.....	1908	14	70.4	.284	19.99	.....	.....	.....	.....	85.7	14.3	.....	.....	.....	.....	.....
	1909	14	70.4	.293	20.62	.....	.....	.....	.....	28.6	71.4	.....	.....	.....	.....	.....
	1910	16	69.1	.411	28.82	.....	.....	.....	.....	25.0	12.5	62.5	.....	.....	.....	.....
	1910	48	64.4	.286	18.71	.....	.....	.....	8.3	50.0	8.3	12.5	20.8	.....	.....	.....
Stranders, 13-inch, 14-inch, and 15-inch: 1 plant.....	1911	40	65.3	.271	17.71	.....	.....	.....	40.0	15.0	5.0	37.5	2.5	.....	.....	.....
	1912	43	64.7	.309	20.38	.....	.....	.....	32.6	14.0	18.6	11.6	.....	23.3	.....	.....
	1913	49	62.4	.319	20.28	.....	.....	.....	42.9	26.5	4.1	2.0	24.5	.....	.....	.....
	1907	20	60.0	.233	14.00	.....	10.0	10.0	.....	40.0	40.0	.....	.....	.....	.....	.....
	1908	20	60.0	.201	12.06	.....	10.0	10.0	.....	80.0	.....	.....	.....	.....	.....	.....
Stranders, 16-inch: 1 plant.....	1909	20	60.0	.211	12.65	.....	10.0	10.0	.....	80.0	.....	.....	.....	.....	.....	.....
	1910	26	60.0	.224	13.46	.....	.....	7.7	30.8	30.8	30.8	.....	.....	.....	.....	.....
	1911	20	60.0	.221	13.25	.....	.....	20.0	.....	80.0	.....	.....	.....	.....	.....	.....
	1912	22	60.0	.217	13.01	.....	.....	27.3	.....	72.7	.....	.....	.....	.....	.....	.....
	1913	11	60.0	.255	15.27	.....	.....	.....	.....	27.3	72.7	.....	.....	.....	.....	.....
2 plants.....	1907	2	65.0	.361	23.47	.....	.....	.....	.....	.....	100.0	.....	.....	.....	.....	.....
	1908	2	65.0	.344	22.36	.....	.....	.....	.....	.....	100.0	.....	.....	.....	.....	.....
	1909	2	65.0	.299	19.44	.....	.....	.....	.....	100.0	.....	.....	.....	.....	.....	.....
	1910	2	65.0	.484	31.46	.....	.....	.....	.....	.....	.....	100.0	.....	.....	.....	.....
	1911	2	65.0	.480	31.20	.....	.....	.....	.....	.....	.....	100.0	.....	.....	.....	.....
1 plant.....	1911	10	57.0	.424	24.28	.....	.....	.....	.....	.....	.....	100.0	.....	.....	.....	.....
	1912	10	57.0	.405	22.86	.....	.....	.....	.....	.....	.....	20.0	80.0	.....	.....	.....
Stranders, all sizes: 13 plants....	1912	8	55.0	.431	23.71	.....	.....	.....	.....	.....	.....	100.0	.....	.....	.....	.....
	1913	8	55.0	.523	28.77	.....	.....	.....	.....	.....	.....	.....	100.0	.....	.....	.....
13 plants....	1907	175	59.5	.334	19.45	.....	1.1	2.3	3.4	21.1	16.0	34.3	8.0	8.6	5.1	.....
	1908	174	59.7	.277	16.25	1.7	1.7	1.1	7.5	25.3	23.0	39.7	.....	.....	.....	.....
	1909	174	59.7	.297	17.34	.6	2.3	2.3	.....	24.1	27.6	36.2	6.9	.....	.....	.....
	1910	180	59.7	.344	20.06	.....	2.2	1.1	4.4	11.1	25.0	35.6	8.9	11.7	.....	.....

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Num- ber of em- ploy- ees.	Aver- age full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Stranders, all sizes—Con.																	
21 plants....	1910	272	60.6	\$0.301	\$17.85	1.5	1.5	4.0	6.6	27.2	19.5	26.1	5.9	7.7	.....	.....	
	1911	254	59.9	.268	15.83	1.6	2.4	4.7	16.9	26.8	16.9	20.1	10.6	.....	.....	.....	
22 plants....	1911	262	59.8	.272	16.03	1.5	2.3	4.6	16.4	26.0	16.4	19.5	13.4	.....	.....	.....	
	1912	266	59.6	.283	16.62	2.7	2.3	6.0	11.7	22.9	21.8	18.0	6.4	8.3	.....	.....	
20 plants....	1912	252	59.2	.284	16.56	2.8	.8	6.3	12.3	25.8	20.6	15.9	6.7	8.7	.....	.....	
	1913	246	58.7	.328	19.07	2.8	.....	1.2	5.3	21.1	18.7	27.2	10.6	13.0	.....	.....	
Finishers, 8- inch:																	
6 plants.....	1907	14	64.5	.298	19.43	.....	.....	.....	14.3	28.6	14.3	28.6	7.1	7.1	.....	.....	
	1908	14	64.8	.277	18.03	.....	.....	.....	14.3	28.6	21.4	21.4	14.3	.....	.....	.....	
	1909	14	64.7	.290	18.77	.....	.....	.....	14.3	14.3	14.3	42.9	14.3	.....	.....	.....	
	1910	13	65.1	.309	20.19	.....	.....	.....	.....	15.4	30.8	38.5	15.4	.....	.....	.....	
9 plants.....	1910	24	60.6	.303	18.24	.....	.....	8.3	.....	8.3	29.2	45.8	8.3	.....	.....	.....	
	1911	25	59.6	.302	18.01	.....	.....	8.0	.....	8.0	36.0	40.0	4.0	4.0	.....	.....	
	1912	25	59.6	.295	17.60	.....	.....	8.0	.....	12.0	36.0	36.0	4.0	4.0	.....	.....	
10 plants....	1912	31	59.3	.301	17.84	.....	.....	6.5	.....	9.7	29.0	48.4	3.2	3.2	.....	.....	
	1913	31	59.4	.354	21.07	.....	.....	.....	6.5	12.9	12.9	38.7	16.1	12.9	.....	.....	
Finishers, 9- inch:																	
5 plants.....	1907	15	66.8	.244	16.24	13.3	.....	.....	13.3	26.7	33.3	.....	13.3	.....	.....	.....	
	1908	14	67.9	.245	16.53	7.1	14.3	.....	.....	28.6	35.7	14.3	.....	.....	.....	.....	
	1909	14	67.8	.254	17.10	7.1	.....	7.1	7.1	28.6	35.7	14.3	.....	.....	.....	.....	
	1910	14	67.8	.261	17.58	7.1	.....	14.3	.....	28.6	35.7	.....	14.3	.....	.....	.....	
9 plants.....	1910	24	64.3	.287	17.98	4.2	.....	8.3	.....	25.0	37.5	4.2	20.8	.....	.....	.....	
	1911	23	63.8	.272	17.18	4.3	.....	4.3	4.3	26.1	30.4	21.7	8.7	.....	.....	.....	
	1912	24	63.4	.282	17.61	4.2	.....	4.2	4.2	16.7	37.5	25.0	8.3	.....	.....	.....	
	1913	24	63.2	.293	18.26	.....	.....	8.3	4.2	.....	54.2	20.8	12.5	.....	.....	.....	
Finishers, 10- inch:																	
4 plants.....	1907	10	68.0	.396	27.29	.....	.....	.....	.....	.....	20.0	20.0	40.0	20.0	.....	.....	
	1908	10	68.0	.342	23.48	.....	.....	.....	.....	.....	40.0	40.0	40.0	20.0	.....	.....	
	1909	10	67.7	.387	26.16	.....	.....	.....	.....	.....	.....	50.0	50.0	.....	.....	.....	
	1910	10	67.7	.412	28.19	.....	.....	.....	.....	.....	.....	60.0	20.0	20.0	.....	.....	
5 plants.....	1910	12	69.3	.376	26.20	.....	.....	.....	.....	16.7	16.7	33.3	16.7	16.7	.....	.....	
	1911	12	68.4	.329	22.72	.....	.....	8.3	8.3	16.7	16.7	16.7	25.0	8.3	.....	.....	
	1912	12	68.4	.358	24.73	.....	.....	.....	.....	.....	41.7	33.3	8.3	16.7	.....	.....	
5 plants.....	1912	12	66.3	.367	24.71	.....	.....	.....	.....	.....	25.0	50.0	8.3	16.7	.....	.....	
	1913	12	66.0	.427	28.62	.....	.....	.....	.....	.....	8.3	41.7	16.7	16.7	.....	.....	
Finishers, 12- inch:																	
4 plants.....	1907	12	69.3	.336	23.28	.....	.....	.....	.....	.....	50.0	16.7	33.3	.....	.....	.....	
	1908	11	70.5	.271	19.04	.....	.....	18.2	.....	18.2	36.4	18.2	9.1	.....	.....	.....	
	1909	11	70.4	.297	20.85	.....	.....	.....	.....	18.2	36.4	36.4	9.1	.....	.....	.....	
	1910	12	69.5	.359	24.97	.....	.....	.....	.....	.....	33.3	33.3	16.7	16.7	.....	.....	
8 plants.....	1910	20	65.8	.349	22.74	.....	.....	.....	.....	.....	35.0	30.0	25.0	10.0	.....	.....	
	1911	19	65.2	.324	20.78	.....	.....	.....	.....	31.6	26.3	10.5	26.3	5.3	.....	.....	
10 plants....	1911	22	63.7	.309	19.51	.....	.....	.....	9.1	27.3	27.3	9.1	22.7	4.5	.....	.....	
	1912	24	63.0	.311	19.81	.....	.....	.....	8.3	20.8	41.7	12.5	8.3	.....	8.3	.....	
	1913	24	62.8	.363	22.70	.....	.....	.....	8.3	.....	29.2	37.5	4.2	8.3	12.5	.....	
Finishers, 13- inch, 14-inch, and 15-inch:																	
1 plant.....	1907	4	60.0	.315	18.90	.....	.....	.....	.....	.....	.....	100.0	.....	.....	.....	.....	
	1908	4	60.0	.275	16.50	.....	.....	.....	.....	.....	.....	100.0	.....	.....	.....	.....	
	1909	4	60.0	.289	17.34	.....	.....	.....	.....	.....	.....	100.0	.....	.....	.....	.....	
	1910	4	60.0	.316	18.96	.....	.....	.....	.....	.....	.....	100.0	.....	.....	.....	.....	

¹ Including 0.7 per cent earning 10 and under 12 cents per hour.² Including 0.8 per cent earning 10 and under 12 cents per hour.³ Including 6.7 per cent earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Num- ber of em- ploy- ees.	Aver- age full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Finishers, 13- inch, 14-inch, and 15-inch— Concluded. 4 plants.....	1910	15	64.0	\$0.339	\$21.01	.....	.....	.....	.....	.....	40.0	40.0	.....	20.0	.....	.....	
	1911	15	64.0	.316	19.83	.....	.....	.....	.....	.....	26.7	66.7	6.7	.....	.....	.....	
	1912	15	64.0	.319	19.97	.....	.....	.....	.....	.....	26.7	53.3	20.0	.....	.....	.....	
	1913	13	63.4	.345	21.20	.....	.....	.....	.....	.....	46.2	30.8	15.4	7.7	.....	.....	
Finishers, 16- inch: 2 plants.....	1907	8	62.8	.262	16.39	.....	.....	.....	.....	50.0	50.0	.....	.....	.....	.....	.....	
	1908	8	62.8	.242	15.11	.....	.....	.....	.....	62.5	37.5	.....	.....	.....	.....	.....	
	1909	8	62.8	.265	16.68	.....	.....	.....	.....	25.0	75.0	.....	.....	.....	.....	.....	
	1910	9	62.2	.310	19.37	.....	.....	.....	.....	.....	33.3	66.7	.....	.....	.....	.....	
3 plants.....	1910	11	62.5	.324	20.34	.....	.....	.....	.....	.....	27.3	72.7	.....	.....	.....	.....	
	1911	11	63.5	.325	20.73	.....	.....	.....	.....	.....	18.2	81.8	.....	.....	.....	.....	
4 plants.....	1911	19	61.1	.363	22.08	.....	.....	.....	.....	.....	10.5	57.9	31.6	.....	.....	.....	
	1912	20	61.1	.377	22.77	.....	.....	10.0	.....	.....	40.0	10.0	20.0	.....	20.0	.....	
	1913	18	61.1	.410	24.87	.....	.....	.....	.....	.....	.....	55.6	22.2	22.2	.....	.....	
Finishers, 18- inch: 1 plant.....	1907	2	62.8	.435	27.30	.....	.....	.....	.....	.....	.....	.....	100.0	.....	.....	.....	
	1908	2	62.8	.417	26.25	.....	.....	.....	.....	.....	.....	50.0	50.0	.....	.....	.....	
	1909	2	62.8	.438	27.48	.....	.....	.....	.....	.....	.....	.....	100.0	.....	.....	.....	
	1910	2	62.8	.438	27.48	.....	.....	.....	.....	.....	.....	.....	100.0	.....	.....	.....	
3 plants.....	1910	5	61.9	.308	19.15	.....	.....	.....	.....	60.0	.....	.....	40.0	.....	.....	.....	
	1911	5	60.7	.350	21.38	.....	.....	.....	.....	.....	20.0	40.0	40.0	.....	.....	.....	
	1912	6	58.9	.336	20.02	.....	.....	.....	.....	.....	33.3	33.3	33.3	.....	.....	.....	
5 plants.....	1912	11	58.6	.427	25.19	.....	.....	.....	.....	.....	18.2	27.3	18.2	36.4	.....	.....	
	1913	12	58.7	.414	24.47	.....	.....	.....	.....	.....	16.7	33.3	16.7	33.3	.....	.....	
Finishers, all sizes: 10 plants.....	1907	65	65.9	.309	20.45	13.0	.....	.....	6.2	18.5	29.2	18.5	20.0	4.6	.....	.....	
	1908	63	66.4	.279	18.53	1.6	3.2	3.2	23.8	36.5	19.0	19.0	9.5	.....	.....	.....	
	1909	63	66.2	.300	19.85	1.6	.....	1.6	4.8	15.9	33.3	27.0	15.9	.....	.....	.....	
	1910	64	66.1	.329	21.80	1.6	.....	3.1	.....	9.4	25.0	39.1	15.6	6.3	.....	.....	
17 plants.....	1910	111	64.0	.323	20.48	.9	.....	3.6	.....	11.7	30.6	32.4	14.4	6.3	.....	.....	
	1911	110	63.4	.309	19.50	.9	.....	3.6	1.8	14.5	27.3	36.4	12.7	2.7	.....	.....	
19 plants.....	1911	121	62.8	.313	19.60	.8	.....	3.3	3.3	13.2	25.6	34.7	16.5	2.5	.....	.....	
	1912	126	62.5	.319	19.92	.8	.....	4.0	2.4	9.5	37.3	27.0	11.9	2.4	4.8	.....	
21 plants.....	1912	137	62.0	.328	20.29	.7	.....	3.6	2.2	8.8	32.8	31.4	10.9	5.1	4.4	.....	
	1913	134	61.8	.363	22.36	.....	.....	1.5	3.7	3.0	24.6	36.6	14.2	12.7	3.7	.....	
Hook ups, 12- inch: 6 plants.....	1907	49	64.8	.289	18.98	.....	.....	.....	.....	24.5	42.9	32.7	.....	.....	.....	.....	
	1908	37	69.1	.230	15.75	.....	5.4	16.2	5.4	48.6	13.5	10.8	.....	.....	.....	.....	
	1909	37	68.9	.241	16.46	.....	.....	.....	10.8	54.1	27.0	8.1	.....	.....	.....	.....	
	1910	37	69.9	.318	22.33	.....	.....	.....	.....	21.6	32.4	8.1	37.8	.....	.....	.....	
13 plants.....	1910	69	62.8	.282	17.93	.....	1.4	2.9	5.8	20.3	44.9	4.3	20.3	.....	.....	.....	
	1911	53	63.4	.244	15.38	.....	5.7	11.3	18.9	13.2	28.3	22.6	.....	.....	.....	.....	
	1912	56	62.5	.269	17.15	.....	3.6	3.6	21.4	17.9	26.8	12.5	14.3	.....	.....	.....	
	1913	58	61.5	.323	19.68	.....	3.4	.....	.....	22.4	12.1	34.5	27.6	.....	.....	.....	
Hook ups, 13- inch, 14-inch, and 15-inch: 1 plant.....	1907	8	60.0	.184	11.04	.....	.....	.....	50.0	50.0	.....	.....	.....	.....	.....	.....	
	1908	14	60.0	.163	9.77	.....	.....	.....	100.0	.....	.....	.....	.....	.....	.....	.....	
	1909	8	60.0	.173	10.40	.....	.....	.....	75.0	25.0	.....	.....	.....	.....	.....	.....	
	1910	12	60.0	.197	11.84	.....	.....	.....	66.7	33.3	.....	.....	.....	.....	.....	.....	

¹ Including 1.5 per cent earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employ-ees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Hook ups, 13-inch, 14-inch, and 15-inch—Concluded. 5 plants.....	1910	50	64.2	\$0.237	\$14.66	.....	.....	14.0	36.0	16.0	16.0	18.0	.....	.....	.....	.....
	1911	45	64.2	.225	14.06	.....	.....	6.7	40.0	33.3	.....	20.0	.....	.....	.....	.....
	1912	51	63.8	.229	14.29	.....	.....	19.6	31.4	15.7	15.7	17.6	.....	.....	.....	.....
	1913	43	63.8	.263	16.32	.....	.....	.....	.....	62.8	16.3	14.0	7.0	.....	.....	.....
Hook ups, 16-inch: 5 plants.....	1907	26	63.9	.263	16.91	15.4	.....	7.7	.....	.....	61.5	7.7	7.7	.....	.....	.....
	1908	23	64.4	.269	17.35	.....	.....	13.0	8.7	21.7	4.3	52.2	.....	.....	.....	.....
	1909	27	64.7	.274	17.80	.....	7.4	.....	14.8	37.0	40.7	.....	.....	.....	.....	.....
	1910	35	64.1	.326	20.97	.....	.....	5.7	.....	5.7	77.1	5.7	5.7	.....	.....	.....
	1911	25	64.4	.337	21.83	.....	.....	8.0	.....	4.0	72.0	8.0	8.0	.....	.....	.....
	1912	35	62.4	.308	19.43	.....	.....	14.3	.....	22.9	51.4	5.7	5.7	.....	.....	.....
6 plants.....	1911	35	62.4	.308	19.43	.....	.....	14.3	.....	22.9	51.4	5.7	5.7	.....	.....	.....
	1912	36	61.5	.269	16.61	.....	.....	11.1	11.1	61.1	16.7	.....	.....	.....	.....	.....
5 plants.....	1912	32	61.1	.263	16.08	.....	.....	12.5	12.5	68.8	6.3	.....	.....	.....	.....	.....
	1913	34	61.5	.329	20.28	.....	.....	.....	.....	8.8	2.9	76.5	11.8	.....	.....	.....
Hook ups, 18-inch: 2 plants.....	1907	9	62.2	.238	14.83	.....	.....	33.3	.....	33.3	33.3	.....	.....	.....	.....	.....
	1908	10	61.0	.190	11.64	10.0	30.0	.....	.....	60.0	.....	.....	.....	.....	.....	.....
	1909	10	61.0	.202	12.39	.....	30.0	10.0	.....	60.0	.....	.....	.....	.....	.....	.....
	1910	9	60.8	.294	18.13	.....	.....	22.2	11.1	.....	.....	66.7	.....	.....	.....	.....
5 plants.....	1910	20	60.4	.227	13.85	10.0	15.0	20.0	15.0	10.0	.....	30.0	.....	.....	.....	.....
	1911	21	60.5	.221	13.48	19.0	19.0	4.8	14.3	14.3	.....	28.6	.....	.....	.....	.....
	1912	24	59.2	.217	12.93	8.3	8.3	16.7	12.5	29.2	.....	25.0	.....	.....	.....	.....
7 plants.....	1912	38	59.0	.258	15.31	5.3	5.3	10.5	7.9	23.7	.....	47.4	.....	.....	.....	.....
	1913	40	58.8	.281	16.60	.....	5.0	2.5	10.0	32.5	.....	45.0	5.0	.....	.....	.....
Hook ups, all sizes: 12 plants.....	1907	92	63.9	.268	17.30	4.3	.....	9.8	4.3	16.3	43.5	19.6	2.2	.....	.....	.....
	1908	84	65.3	.225	14.70	1.2	6.0	27.4	4.8	34.5	7.1	19.0	.....	.....	.....	.....
	1909	82	65.7	.241	15.82	.....	6.1	8.5	7.3	36.6	24.4	17.1	.....	.....	.....	.....
	1910	93	65.6	.303	20.06	.....	.....	2.2	11.8	12.9	15.1	38.7	17.2	2.2	.....	.....
20 plants.....	1910	174	63.2	.272	17.13	1.1	2.3	7.5	15.5	13.8	23.6	25.9	9.2	1.1	.....	.....
	1911	144	63.4	.251	15.81	2.8	4.9	6.9	22.9	17.4	11.1	31.2	1.4	1.4	.....	.....
21 plants.....	1911	154	63.0	.250	15.66	2.6	4.5	6.5	23.4	16.2	14.9	29.2	1.3	1.3	.....	.....
	1912	167	62.2	.249	15.56	1.2	2.4	9.6	21.0	17.4	26.9	16.8	4.8	.....	.....	.....
22 plants.....	1912	177	61.9	.254	15.74	1.1	2.3	9.0	19.8	17.5	25.4	20.3	4.5	.....	.....	.....
	1913	175	61.4	.300	18.27	.....	2.3	6	2.3	32.0	8.6	40.0	14.3	.....	.....	.....
Roll hands, other, 8-inch: 5 plants.....	1907	20	65.1	.250	16.20	.....	10.0	20.0	10.0	10.0	15.0	35.0	.....	.....	.....	.....
	1908	20	65.3	.237	15.29	15.0	25.0	.....	.....	20.0	15.0	15.0	10.0	.....	.....	.....
	1909	20	65.1	.235	15.15	10.0	25.0	5.0	.....	30.0	5.0	15.0	10.0	.....	.....	.....
	1910	20	65.1	.257	16.51	10.0	10.0	20.0	.....	10.0	20.0	15.0	10.0	5.0	.....	.....
9 plants.....	1910	33	60.6	.251	15.01	12.1	12.1	12.1	.....	6.1	30.3	18.2	6.1	3.0	.....	.....
	1911	33	60.0	.253	15.04	6.1	6.1	21.2	3.0	9.1	24.2	24.2	6.1	.....	.....	.....
	1912	33	60.0	.248	14.75	15.2	3.0	15.2	3.0	12.1	27.3	18.2	3.0	3.0	.....	.....
	1913	36	59.6	.284	16.83	16.6	.....	.....	16.7	2.8	11.1	41.7	8.3	2.8	.....	.....

¹ Including 9.5 per cent earning 10 and under 12 cents per hour.² Including 1.4 per cent earning 10 and under 12 cents per hour.³ Including 1.3 per cent earning 10 and under 12 cents per hour.⁴ Including 5 per cent earning 10 and under 12 cents per hour.⁵ Including 6.1 per cent earning 10 and under 12 cents per hour.⁶ Earning 10 and under 12 cents per hour.⁷ Including 9.1 per cent earning 10 and under 12 cents per hour.⁸ Including 8.3 per cent earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.												
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.		
Roll hands, other, 9-inch: 3 plants.....	1907	18	59.7	\$0.224	\$12.91	.....	.....	44.4	11.1	.....	33.3	11.1	.....	.....	.....	.....		
	1908	18	60.4	.223	12.95	.....	11.1	44.4	.....	.....	33.3	11.1	.....	.....	.....	.....		
	1909	18	60.3	.222	12.90	.....	.....	55.6	.....	.....	33.3	11.1	.....	.....	.....	.....		
	1910	18	60.3	.234	13.64	.....	.....	11.1	44.4	.....	33.3	11.1	.....	.....	.....	.....		
6 plants.....	1910	35	56.5	.267	14.49	.....	5.7	5.7	22.9	5.7	20.0	31.4	8.6	.....	.....	.....		
	1911	35	56.1	.242	13.24	5.7	2.9	28.6	.....	25.7	17.1	14.3	5.7	.....	.....	.....		
	1912	36	56.3	.257	14.05	5.6	2.8	30.6	.....	5.6	36.1	13.9	.....	5.6	.....	.....		
	1913	36	57.2	.275	15.38	.....	.....	11.1	22.2	5.6	25.0	25.0	5.6	5.6	.....	.....		
Roll hands, other, 10-inch: 4 plants.....	1907	29	70.4	.388	27.24	.....	.....	.....	.....	3.4	.....	75.9	3.4	17.2	.....	.....		
	1908	29	70.4	.327	22.89	.....	.....	.....	.....	41.4	17.2	17.2	10.3	13.8	.....	.....		
	1909	29	70.0	.346	24.04	.....	.....	.....	.....	3.4	51.7	20.7	10.3	10.3	3.4	.....		
	1910	29	70.0	.409	28.38	.....	.....	.....	.....	.....	6.9	58.6	13.8	6.9	6.9	6.9		
7 plants.....	1910	39	67.8	.359	24.58	.....	10.3	.....	5.1	.....	15.4	43.6	10.3	5.1	5.1	5.1		
	1911	39	66.8	.327	22.11	.....	2.6	2.6	15.4	.....	41.0	12.8	15.4	2.6	7.7	.....		
	1912	39	66.8	.351	23.69	.....	.....	2.6	2.6	12.8	41.0	10.3	20.5	.....	6.1	5.1		
6 plants.....	1912	33	66.0	.341	22.72	.....	.....	3.0	3.0	15.2	42.4	12.1	12.1	.....	6.1	6.1		
	1913	33	66.0	.387	25.95	.....	.....	.....	12.1	6.1	.....	54.5	9.1	6.1	3.0	9.1		
Roll hands, other, 12-inch: 4 plants.....	1907	24	70.1	.201	14.04	.....	.....	58.3	16.7	16.7	.....	.....	8.3	.....	.....	.....		
	1908	21	70.4	.194	13.60	.....	57.1	.....	9.5	23.8	.....	.....	9.5	.....	.....	.....		
	1909	21	70.3	.210	14.75	.....	.....	.....	76.2	14.3	.....	.....	9.5	.....	.....	.....		
	1910	22	69.9	.212	15.27	.....	.....	.....	9.1	27.3	.....	54.5	.....	9.1	.....	.....		
9 plants.....	1910	33	67.0	.285	19.06	.....	.....	.....	21.2	24.2	3.0	45.5	.....	6.1	.....	.....		
	1911	32	67.7	.254	16.95	.....	.....	6.3	12.5	62.5	3.1	3.1	12.5	.....	.....	.....		
	1912	33	67.5	.298	20.25	.....	.....	6.1	6.1	27.3	3.0	51.5	.....	.....	6.1	.....		
7 plants.....	1912	28	67.5	.284	19.20	.....	.....	7.1	.....	28.6	3.6	60.7	.....	.....	.....	.....		
	1913	28	67.4	.304	20.15	.....	.....	.....	7.1	21.4	7.1	53.6	.....	10.7	.....	.....		
Roll hands, other, 13-inch, 14-inch, and 15-inch: 3 plants.....	1910	29	62.1	.307	17.94	.....	.....	.....	34.5	.....	17.2	6.9	41.4	.....	.....	.....		
	1911	28	61.7	.268	15.81	.....	.....	.....	35.7	.....	3.6	17.9	42.9	.....	.....	.....		
	1912	25	63.4	.268	16.17	.....	.....	.....	40.0	.....	.....	24.0	36.0	.....	.....	.....		
	1913	19	60.0	.335	19.38	.....	.....	.....	21.1	.....	21.1	21.1	36.8	.....	.....	.....		
Roll hands, other, 16-inch: 2 plants.....	1907	4	64.5	.331	21.26	.....	.....	.....	.....	.....	50.0	25.0	25.0	.....	.....	.....		
	1908	4	64.5	.331	21.21	.....	.....	.....	.....	.....	50.0	25.0	25.0	.....	.....	.....		
	1909	4	64.5	.359	22.97	.....	.....	.....	.....	.....	50.0	25.0	.....	.....	25.0	.....		
	1910	4	64.5	.374	24.13	.....	.....	.....	.....	.....	50.0	.....	25.0	25.0	.....	.....		
	1911	4	64.5	.398	25.03	.....	.....	.....	.....	.....	50.0	.....	25.0	25.0	.....	.....		
	1912	3	64.5	.394	25.51	.....	.....	.....	.....	.....	33.3	.....	66.7	.....	.....	.....		
1 plant.....	1912	6	64.5	.350	22.59	.....	.....	.....	.....	.....	66.7	.....	33.3	.....	.....	.....		
	1913	6	64.5	.408	26.36	.....	.....	.....	.....	.....	.....	66.7	.....	33.3	.....	.....		
Roll hands, other, 18-inch: 1 plant.....	1907	2	62.8	.237	14.84	.....	.....	.....	.....	50.0	50.0	.....	.....	.....	.....	.....		
	1908	2	62.8	.181	11.33	.....	.....	.....	50.0	50.0	.....	.....	.....	.....	.....	.....		
	1909	2	62.8	.200	12.55	.....	.....	.....	.....	50.0	50.0	.....	.....	.....	.....	.....		
	1910	2	62.8	.296	18.57	.....	.....	.....	.....	.....	100.0	.....	.....	.....	.....	.....		
4 plants.....	1910	7	59.9	.226	13.67	.....	.....	.....	57.1	14.3	28.6	.....	.....	.....	.....	.....		
	1911	6	60.8	.250	15.55	.....	16.7	16.7	.....	16.7	16.7	33.3	.....	.....	.....	.....		
	1912	7	59.2	.235	13.91	.....	.....	.....	.....	57.1	.....	.....	.....	.....	.....	.....		
5 plants.....	1912	9	59.3	.309	18.35	.....	.....	.....	.....	44.4	33.3	.....	.....	22.2	.....	.....		
	1913	10	58.9	.344	20.41	.....	.....	.....	.....	20.0	30.0	30.0	.....	20.0	.....	.....		

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employ- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Roll hands, other, all sizes: 9 plants.....	1907	97	66.8	\$0.278	\$18.53	.....	2.1	26.8	8.2	8.2	12.4	33.0	4.1	5.2	.....	.....	
	1908	94	67.0	.255	16.97	13.2	20.2	9.6	3.2	22.3	17.0	11.7	8.5	4.3	.....	.....	
	1909	94	66.8	.266	17.65	2.1	5.3	11.7	18.1	11.7	25.5	14.9	5.3	4.3	1.1	.....	
	1910	95	66.7	.315	21.06	2.1	2.1	6.3	10.5	8.4	16.8	35.8	7.4	6.3	2.1	2.1	
18 plants....	1910	180	62.8	.295	18.35	12.2	5.6	3.3	17.2	7.2	18.3	28.3	12.2	3.3	1.1	1.1	
	1911	177	62.5	.273	16.97	12.2	2.8	17.5	6.2	19.2	22.0	18.6	8.5	1.1	1.7	.....	
	1912	176	62.7	.287	17.97	24.0	1.1	16.5	2.3	13.6	27.8	23.3	6.2	1.7	2.3	1.1	
18 plants....	1912	170	62.2	.284	17.56	24.2	1.2	17.1	1.2	13.5	29.4	24.1	4.1	2.9	1.2	1.2	
	1913	168	61.8	.320	19.71	23.6	.....	2.4	14.3	7.7	13.1	40.5	8.9	7.1	.6	1.8	
Hotbed men: 15 plants.....	1907	302	63.3	.189	11.98	46.0	35.8	15.6	10.6	19.9	5.6	6.6	.....	.....	.....	.....	
	1908	299	63.2	.174	10.93	69.0	38.8	21.4	12.4	11.7	4.3	2.3	.....	.....	.....	.....	
	1909	286	63.3	.180	11.00	18.2	24.5	18.5	11.5	18.9	3.1	5.2	.....	.....	.....	.....	
	1910	302	63.3	.208	13.02	77.3	12.6	28.8	11.9	19.2	11.9	1.3	6.3	.7	.....	.....	
25 plants....	1910	500	62.9	.200	12.46	10.4	15.6	25.4	14.2	16.6	11.4	2.2	3.8	.4	.....	.....	
	1911	434	62.0	.189	11.69	11.5	18.0	28.8	13.6	15.0	6.2	5.5	.9	5	.....	.....	
26 plants....	1911	450	61.9	.188	11.61	101.1	20.0	27.8	14.0	14.4	6.0	5.3	.9	.4	.....	.....	
	1912	461	61.7	.192	11.80	112.4	9.1	28.2	15.0	21.9	8.2	5.2	.....	.....	.....	.....	
26 plants....	1912	455	61.5	.192	11.73	1210.3	9.2	30.3	16.0	21.8	7.5	4.8	.....	.....	.....	.....	
	1913	467	60.9	.221	13.43	134.4	4.5	5.8	28.3	36.0	13.1	5.8	2.1	.....	.....	.....	
Shearmen: 15 plants.....	1907	94	64.8	.249	16.20	.....	1.1	18.1	21.3	21.3	12.8	21.3	.....	2.1	2.1	.....	
	1908	92	65.1	.216	14.10	2.2	1.1	26.1	22.8	23.9	16.3	6.5	.....	.....	1.1	.....	
	1909	93	65.3	.225	14.72	.....	6.5	14.0	29.0	21.5	17.2	9.7	1.1	.....	1.1	.....	
	1910	97	65.0	.247	16.11	.....	9.3	8.2	24.7	14.4	18.6	20.6	3.1	1.0	.....	.....	
25 plants....	1910	156	63.3	.264	16.40	1.3	8.3	7.1	19.2	17.3	18.6	19.9	5.8	.6	.....	1.9	
	1911	151	62.5	.254	15.55	1.3	5.3	11.3	27.2	15.2	16.6	13.2	6.6	3.3	.....	.....	
	1912	154	62.4	.254	15.59	1.3	3.2	11.0	24.7	20.1	16.2	16.2	3.9	3.2	.....	.....	
24 plants....	1912	156	62.4	.251	15.40	1.3	3.2	10.3	25.6	22.4	15.4	14.7	3.8	3.2	.....	.....	
	1913	159	62.0	.287	17.54	.....	.....	6.3	8.2	34.6	20.8	13.2	11.9	2.5	2.5	.....	
Shearmen's helpers: 15 plants.....	1907	201	65.9	.174	11.46	10.9	37.8	24.4	6.0	13.9	6.0	1.0	.....	.....	.....	.....	
	1908	172	66.2	.168	11.07	101.1	43.0	19.2	11.6	12.2	1.7	1.2	.....	.....	.....	.....	
	1909	185	67.3	.169	11.32	20.1	34.1	17.3	9.2	14.6	2.7	1.1	.....	.....	.....	.....	
	1910	215	65.3	.184	12.00	175.6	25.6	32.1	6.0	22.3	7.4	.9	.....	.....	.....	.....	

¹ Including 1.1 per cent earning 10 and under 12 cents per hour.² Including 1.7 per cent earning 10 and under 12 cents per hour.³ Including 1.8 per cent earning 10 and under 12 cents per hour.⁴ Including 4.6 per cent earning 10 and under 12 cents per hour.⁵ Including 2 per cent earning 8 and under 9 cents, 1.3 per cent earning 9 and under 10 cents, and 0.7 per cent earning 10 and under 12 cents per hour.⁶ Including 2.1 per cent earning 9 and under 10 cents and 2.8 per cent earning 10 and under 12 cents per hour.⁷ Including 2 per cent earning 9 and under 10 cents and 2 per cent earning 10 and under 12 cents per hour.⁸ Including 1.2 per cent earning 9 and under 10 cents and 3.6 per cent earning 10 and under 12 cents per hour.⁹ Including 5.3 per cent earning 10 and under 12 cents per hour.¹⁰ Including 5.1 per cent earning 10 and under 12 cents per hour.¹¹ Including 0.7 per cent earning 8 and under 9 cents, 1.1 per cent earning 9 and under 10 cents, and 4.1 per cent earning 10 and under 12 cents per hour.¹² Including 0.7 per cent earning 8 and under 9 cents, 1.1 per cent earning 9 and under 10 cents, and 3.7 per cent earning 10 and under 12 cents per hour.¹³ Including 0.6 per cent earning 7 and under 8 cents, 0.6 per cent earning 8 and under 9 cents, 0.4 per cent earning 9 and under 10 cents, and 1.1 per cent earning 10 and under 12 cents per hour.¹⁴ Including 3.5 per cent earning 10 and under 12 cents per hour.¹⁵ Including 4.1 per cent earning 10 and under 12 cents per hour.¹⁶ Including 7.6 per cent earning 10 and under 12 cents per hour.¹⁷ Including 0.9 per cent earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Shearmen's helpers—Con. 23 plants....	1910	355	64.7	\$0.187	\$12.02	10.7	16.3	30.7	8.2	24.5	5.6	3.9				
	1911	359	63.8	.178	11.28	12.5	15.9	43.5	6.1	15.9	5.0	.6	0.6			
	1912	358	63.9	.184	11.74	9.5	8.4	39.7	7.8	26.3	7.3	1.1				
22 plants....	1912	337	63.4	.183	11.52	9.5	8.9	42.4	6.8	23.7	8.0	.6				
	1913	316	62.8	.214	13.30	4.4	7.0	6.6	27.8	35.8	7.0	10.8	.6			
Bundlers: 5 plants....	1907	41	66.9	.202	13.53			24.4	31.7	39.0	2.4	2.4				
	1908	41	66.9	.174	11.68	4.9	29.3	30.6	19.5	7.3	2.4					
	1909	41	66.8	.186	12.42		9.8	31.7	43.9	14.6						
	1910	41	67.1	.213	14.23		4.9	22.0	4.9	63.4	4.9					
6 plants....	1910	77	66.1	.207	13.69		2.6	11.7	31.2	51.9	2.6					
	1911	81	63.5	.193	12.28		1.2	19.8	39.5	37.0	2.5					
7 plants....	1911	131	62.0	.197	12.20		.8	12.2	24.4	61.1	1.5					
	1912	132	62.0	.193	11.94			12.1	68.2	18.2	1.5					
7 plants....	1912	129	61.6	.194	11.96			1.6	78.3	13.6	1.6					
	1913	136	61.4	.228	14.05			1.5		88.2	8.8	1.5				
Laborers: 10 plants....	1907	296	68.3	.153	10.44	9.1	58.4	32.4								
	1908	227	64.8	.153	9.93	17.2	39.6	43.2								
	1909	324	67.8	.150	10.17	15.4	56.2	28.4								
	1910	424	67.2	.161	10.81	9.4	7.3	83.3								
15 plants....	1910	511	67.8	.160	10.86	10.0	13.7	76.3								
	1911	355	66.0	.160	10.59	12.4	7.3	80.3								
17 plants....	1911	390	65.5	.159	10.40	11.3	15.6	73.1								
	1912	424	65.9	.159	10.52	10.4	12.7	76.9								
21 plants....	1912	536	65.0	.160	10.38	14.4	11.2	71.8	2.6							
	1913	705	64.3	.178	11.51	1.1	7.4	48.7	33.6	9.2						

¹ Including 1.7 per cent earning 8 and under 9 cents and 2.3 per cent earning 10 and under 12 cents per hour.² Including 3.1 per cent earning 10 and under 12 cents per hour.³ Including 0.6 per cent earning 9 and under 10 cents and 3.1 per cent earning 10 and under 12 cents per hour.⁴ Including 0.6 per cent earning 9 and under 10 cents and 3.3 per cent earning 10 and under 12 cents per hour.⁵ Including 0.6 per cent earning 6 and under 7 cents and 0.6 per cent earning 10 and under 12 cents per hour.

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS.

[The abbreviation "G. L. and M. W." stands for "Great Lakes and Middle West."]

STOCKERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	6	71	59.1	\$0.263	\$15.43	2	4	5	...	24	16	20	...	...	...	...
Pittsburgh.....	7	86	60.9	.217	12.76	...	1	37	11	11	11	15	...	...	...	...
G. L. and M. W.....	4	58	63.1	.217	13.63	...	...	14	8	22	12	2	...	...	...	...
Total.....	17	215	60.9	.232	13.88	2	5	56	19	57	39	37	...	...	...	...
1913.																
Eastern.....	6	86	59.2	.270	15.88	3	...	...	19	4	32	22	6	...	...	...
Pittsburgh.....	7	82	60.3	.251	14.74	...	...	1	26	26	6	17	6	...	...	...
G. L. and M. W.....	4	58	63.1	.231	14.51	...	...	...	14	30	10	4	...	...	...	...
Total.....	17	226	60.6	.253	15.12	3	...	1	59	60	48	43	12	...	...	...

HEATERS.

1912.																
Eastern.....	8	65	61.2	\$0.479	\$29.19	...	...	...	...	...	4	17	14	18	10	2
Pittsburgh.....	10	85	61.2	.506	30.81	...	...	...	...	...	14	22	10	17	8	14
G. L. and M. W.....	8	46	63.7	.516	32.21	...	...	...	...	...	5	4	12	6	19	...
Total.....	26	196	61.8	.499	30.60	...	...	...	...	...	23	43	36	41	37	16
1913.																
Eastern.....	8	72	61.1	.520	31.57	...	...	...	...	...	14	24	10	14	10	...
Pittsburgh.....	10	86	61.6	.593	36.28	...	...	...	1	3	7	14	23	16	22	...
G. L. and M. W.....	8	53	62.7	.561	34.59	...	...	...	...	...	5	11	14	21	2	...
Total.....	26	211	61.7	.560	34.25	...	...	...	1	3	26	49	47	51	34	...

HEATERS' HELPERS.

1912.																
Eastern.....	8	104	61.2	\$0.242	\$14.79	...	17	8	18	10	31	18	2	...	...	...
Pittsburgh.....	10	172	60.8	.262	15.65	...	...	2	23	80	21	40	6	...	...	...
G. L. and M. W.....	6	42	68.4	.234	15.92	...	4	8	2	8	12	8	...	...	...	...
Total.....	24	318	61.9	.251	15.41	...	21	18	43	98	64	66	8	...	...	...
1913.																
Eastern.....	8	116	61.0	.246	14.99	...	11	12	10	38	17	27	1	...	...	...
Pittsburgh.....	10	171	61.2	.296	17.82	...	2	...	10	60	36	43	18	2	...	...
G. L. and M. W.....	6	37	69.4	.254	17.52	...	...	...	9	8	13	7	...	...	...	...
Total.....	24	324	62.0	.273	16.77	...	13	12	29	106	66	77	19	2	...	...

CHARGERS AND HELPERS.

1912.																
Eastern.....	3	15	61.2	\$0.179	\$10.96	...	...	10	1	4	...	...	...	...	...	...
Pittsburgh.....	9	104	64.4	.200	12.69	...	4	50	13	22	13	2	...	...	...	...
G. L. and M. W.....	7	62	64.8	.203	13.21	...	18	10	6	14	14	...	...	...	...	...
Total.....	19	181	64.3	.199	12.72	...	22	70	20	40	27	2	...	...	...	...
1913.																
Eastern.....	3	21	61.0	.181	10.99	...	...	8	7	6	...	...	...	...	...	...
Pittsburgh.....	9	104	63.3	.228	14.28	...	1	7	31	43	13	6	2	1	...	...
G. L. and M. W.....	7	60	65.4	.232	15.09	...	...	12	14	16	10	4	4	...	...	...
Total.....	19	185	63.7	.224	14.17	...	1	27	52	65	23	10	6	1	...	...

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR. BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

DRAG DOWNS.

Year and district.	Number of plants	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	7	33	60.9	\$0.241	\$14.77			4		17	10	2				
Pittsburgh.....	8	65	66.5	.224	14.76		2	14		10	16	8				
G. L. and M. W.	5	23	60.0	.339	20.24						5	14	4			
Total.....	20	121	63.8	.251	15.81	2	14	4	10	32	31	24	4			
1913.																
Eastern.....	7	36	61.0	.257	15.68			1		17	12	6				
Pittsburgh.....	8	65	65.4	.257	16.73		4		9	21	11	20				
G. L. and M. W.	5	23	60.0	.387	22.93						3	9	11			
Total.....	20	124	63.1	.281	17.57	4		1	9	38	26	35	11			

ROLL ENGINEERS.

1912.																
Eastern.....	6	18	66.7	\$0.201	\$13.43			5	2	9	2					
Pittsburgh.....	8	53	70.4	.230	16.26				4	39	10					
G. L. and M. W.....	6	22	72.1	.244	17.53				2	13	7					
Total.....	20	93	70.1	.228	16.02			5	8	61	19					
1913.																
Eastern.....	6	22	65.6	.221	14.35			4		14	4					
Pittsburgh.....	8	53	71.8	.257	18.44					12	39	2				
G. L. and M. W.....	6	22	72.4	.258	18.63					4	14	4				
Total.....	20	97	70.5	.249	17.56			4		30	57	6				

ROLLERS: 8-INCH.

1912.																
Eastern.....	3	5	54.8	\$0.724	\$40.29									2		3
Pittsburgh.....	6	20	58.1	.964	57.36								4	2	1	13
G. L. and M. W.....	2	4	61.5	.706	45.70					1					2	1
Total.....	11	29	58.0	.887	52.81					1			4	4	3	17
1913.																
Eastern.....	3	5	52.6	.887	47.28									2		3
Pittsburgh.....	6	20	58.9	1.118	65.59							1		3	1	15
G. L. and M. W.....	2	4	61.5	1.059	64.82										1	3
Total.....	11	29	58.1	1.070	62.33							1		5	2	21

ROLLERS: 9-INCH.

1912.																
Eastern.....	2	5	61.2	\$0.634	\$38.71									2		3
Pittsburgh.....	5	10	60.6	.858	52.82									2	2	6
G. L. and M. W.....	3	7	67.8	.874	59.05									2		5
Total.....	10	22	63.0	.812	51.60									6	2	14
1913.																
Eastern.....	2	5	61.2	.784	48.11											5
Pittsburgh.....	5	10	60.2	.930	57.13								1	2	1	6
G. L. and M. W.....	3	7	67.8	1.042	69.95										2	5
Total.....	10	22	62.8	.932	59.16								1	2	3	16

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

ROLLERS: 10-INCH.

Year and district.	Number of plants	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	2	6	52.3	\$0.877	\$45.35	.....										6
Pittsburgh.....	5	12	67.1	1.163	78.10	.....									1	11
Total.....	7	18	62.1	1.068	67.18	.....									1	17
1913.																
Eastern.....	2	6	51.7	.920	47.60											6
Pittsburgh.....	5	12	67.1	1.239	83.54											12
Total.....	7	18	61.9	1.132	71.56											18

ROLLERS: 12-INCH.

1912.																
Eastern.....	4	7	61.1	\$1.036	\$63.46											7
Pittsburgh.....	5	13	63.2	.717	45.99									5	1	7
G. L. and M. W.	3	7	71.1	.800	61.10										3	4
Total.....	12	27	64.7	.837	54.44										5	4
1913.																
Eastern.....	4	8	61.0	.996	60.59											8
Pittsburgh.....	5	13	62.8	.989	61.78										1	12
G. L. and M. W.	3	7	71.1	.871	61.90										3	4
Total.....	12	28	64.4	.961	61.47										4	24

ROLLERS: 13-INCH, 14-INCH, AND 15-INCH.

1912.																
Eastern.....	1	2	72.0	\$0.385	\$27.72							2				
Pittsburgh.....	2	5	57.6	.772	44.02										3	2
G. L. and M. W.	1	2	68.0	.549	37.33									2		
Total.....	4	9	63.1	.637	38.91							2			2	2
1913.																
Eastern.....	1	2	72.0	.385	27.72							2				
Pittsburgh.....	2	5	56.8	.875	49.72											5
G. L. and M. W.	1	2	68.0	.411	32.03								2			
Total.....	4	9	62.7	.676	40.90							2	2			5

ROLLERS: 16-INCH.

1912.																
Eastern.....	2	3	59.8	\$0.673	\$40.35										2	1
Pittsburgh.....	2	4	64.3	.915	59.85										2	2
G. L. and M. W.	1	4	60.5	.745	44.41										2	2
Total.....	5	11	61.7	.787	48.92										6	5
1913.																
Eastern.....	2	4	61.0	.920	56.70											4
Pittsburgh.....	2	4	64.3	1.173	76.52											4
G. L. and M. W.	1	3	53.7	.869	49.71									1		2
Total.....	5	11	61.5	.998	62.00										1	10

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

ROLLERS: 18-INCH.

Year and district.	Number of plants	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	4	7	58.1	\$0.703	\$40.70	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	4
Pittsburgh.....	2	3	57.3	1.289	74.47	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
G. L. and M. W.	1	2	62.8	.921	58.98	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Total.....	7	12	58.7	.886	52.19	.....	.....	.....	.....	.....	.....	.....	.....	1	3	8
1913.																
Eastern.....	4	8	58.3	.794	46.36	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	6
Pittsburgh.....	2	3	57.3	1.277	73.80	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
G. L. and M. W.	1	2	62.8	1.248	79.74	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Total.....	7	13	58.8	.975	57.83	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	11

ROLLERS: ALL SIZES.

1912.																
Eastern.....	8	35	58.6	\$0.772	\$44.93	.....	.....	.....	.....	.....	.....	2	.....	4	5	24
Pittsburgh.....	10	67	61.3	.933	58.11	.....	.....	.....	.....	.....	.....	.....	4	10	9	44
G. L. and M. W.....	6	26	66.2	.803	53.62	.....	.....	.....	1	.....	.....	.....	1	2	9	13
Total.....	24	128	61.6	.863	53.60	.....	.....	.....	1	.....	.....	2	5	16	23	81
1913.																
Eastern.....	8	38	58.5	.859	49.28	.....	.....	.....	.....	.....	.....	2	.....	2	2	32
Pittsburgh.....	10	67	61.4	1.079	66.64	.....	.....	.....	.....	.....	.....	1	1	5	3	57
G. L. and M. W.....	6	25	66.2	.947	62.19	.....	.....	.....	.....	.....	.....	.....	2	1	6	16
Total.....	24	130	61.5	.939	60.71	.....	.....	.....	.....	.....	.....	3	3	8	11	105

ROUGHERS: 8-INCH.

1912.																
Eastern.....	3	13	55.7	\$0.322	\$17.96	.....	.....	.....	.....	.....	8	2	3	.....	.....	.....
Pittsburgh.....	6	54	56.5	.334	19.19	.....	.....	.....	.....	6	14	21	12	1	.....	.....
G. L. and M. W.....	2	12	54.3	.359	19.47	.....	.....	.....	.....	.....	6	.....	6	.....	.....	.....
Total.....	11	79	56.0	.336	19.03	.....	.....	.....	.....	6	28	23	21	1	.....	.....
1913.																
Eastern.....	3	13	53.2	.408	21.75	.....	.....	.....	.....	.....	5	2	.....	6	.....	.....
Pittsburgh.....	6	54	57.6	.379	22.26	.....	.....	.....	2	7	7	19	5	13	1	.....
G. L. and M. W.....	2	12	54.3	.428	23.19	.....	.....	.....	.....	.....	.....	3	9	.....	.....	.....
Total.....	11	79	56.4	.391	22.32	.....	.....	.....	2	7	12	24	14	19	1	.....

ROUGHERS: 9-INCH.

1912.																
Eastern.....	2	15	58.2	\$0.283	\$16.45	.....	.....	.....	.....	.....	9	6	.....	.....	.....	.....
Pittsburgh.....	5	27	62.0	.408	25.17	.....	.....	.....	.....	.....	6	5	10	6	.....	.....
G. L. and M. W.....	4	40	53.1	.505	26.75	.....	.....	.....	.....	.....	.....	3	12	17	8	.....
Total.....	11	82	57.0	.433	24.35	.....	.....	.....	.....	.....	15	14	22	23	8	.....
1913.																
Eastern.....	2	15	58.2	.362	21.39	.....	.....	.....	.....	.....	3	6	6	.....	.....	.....
Pittsburgh.....	5	27	61.3	.440	26.89	.....	.....	.....	.....	.....	6	2	7	12	.....	.....
G. L. and M. W.....	4	41	52.9	.537	29.53	.....	.....	.....	.....	.....	.....	3	12	10	8	8
Total.....	11	83	56.6	.484	27.20	.....	.....	.....	.....	.....	9	11	25	22	8	8

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

ROUGHERS: 10-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	2	16	54.0	\$0.379	\$19.81						8		4	4		
Pittsburgh.....	5	37	65.1	.372	23.76						6	20	8	3		
Total.....	7	53	61.7	.374	22.57						14	20	12	7		
1913.																
Eastern.....	2	16	53.1	.400	20.91							8	6	2		
Pittsburgh.....	5	37	65.1	.419	27.01							20	14	3		
Total.....	7	53	61.5	.413	25.17							28	20	5		

ROUGHERS: 12-INCH.

1912.																
Eastern.....	5	27	58.4	\$0.453	\$26.61						2	7	6	12		
Pittsburgh.....	5	36	65.8	.345	22.73						5	31				
G. L. and M. W.	3	18	70.7	.436	30.93							8		10		
Total.....	13	81	64.4	.401	25.84						7	46	6	22		
1913.																
Eastern.....	5	30	58.1	.443	25.92						4	2	15	9		
Pittsburgh.....	5	36	65.2	.451	28.99							6	24	4	2	
G. L. and M. W.	3	18	70.7	.445	31.54							8	10			
Total.....	13	84	63.8	.447	28.44						4	16	49	13	2	

ROUGHERS: 13-INCH, 14-INCH, AND 15-INCH.

1912.																
Eastern.....	1	2	72.0	\$0.426	\$30.67								2			
Pittsburgh.....	2	16	54.0	.400	21.13							4	12			
G. L. and M. W.	2	29	64.7	.341	22.25						12	7	10			
Total.....	5	47	61.4	.364	22.23						12	11	24			
1913.																
Eastern.....	1	2	72.0	.407	29.30								2			
Pittsburgh.....	2	16	54.5	.477	25.65							2	9	5		
G. L. and M. W.	2	23	65.9	.321	21.14						7	16				
Total.....	5	41	61.8	.386	23.30						7	18	11	5		

ROUGHERS: 16-INCH.

1912.																
Eastern.....	2	10	58.9	\$0.291	\$17.48					8				2		
Pittsburgh.....	2	14	64.3	.367	23.64					6			8			
G. L. and M. W.	1	8	57.8	.528	30.77								4		4	
Total.....	5	32	61.0	.384	23.50					14			12	2	4	
1913.																
Eastern.....	2	14	60.5	.346	21.14					8			6			
Pittsburgh.....	2	14	64.3	.502	32.29								6	8		
G. L. and M. W.	1	6	56.8	.486	27.47								2	4		
Total.....	5	34	61.4	.435	26.85					8			14	12		

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

ROUGHERS: 18-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	4	16	57.5	\$0.475	\$27.22						2		9	5		
Pittsburgh.....	2	9	58.8	.564	33.19								1	8		
G. L. and M. W.	1	6	62.8	.441	27.64								6			
Total.....	7	31	58.9	.494	29.04						2		16	13		
1913.																
Eastern.....	4	18	57.2	.461	26.41						4		12		2	
Pittsburgh.....	2	9	58.8	.562	33.06									9		
G. L. and M. W.	1	6	62.8	.526	32.98									6		
Total.....	7	33	58.6	.500	29.42						4		12	15	2	

ROUGHERS: ALL SIZES.

1912.																
Eastern.....	8	99	57.5	\$0.384	\$22.09					8	29	15	24	23		
Pittsburgh.....	10	193	61.1	.372	22.70					12	31	81	51	18		
G. L. and M. W.	8	113	59.8	.435	25.82						18	18	38	27	12	
Total.....	26	405	59.9	.393	23.42					20	78	114	113	68	12	
1913.																
Eastern.....	8	108	57.2	.411	23.57						24	18	47	17	2	
Pittsburgh.....	10	193	61.3	.434	26.59				2	7	13	49	65	54	3	
G. L. and M. W.	8	106	59.7	.466	27.41						7	30	33	20	8	8
Total.....	26	407	59.8	.436	26.00				2	7	44	97	145	91	13	8

CATCHERS: 8-INCH.

1912.																
Eastern.....	3	5	54.8	\$0.259	\$14.46			1		1	2		1			
Pittsburgh.....	2	14	53.7	.331	17.81						2	12				
G. L. and M. W.	1	6	54.5	.429	23.38									6		
Total.....	6	25	54.1	.400	18.48			1		1	4	12	7			
1913.																
Eastern.....	3	5	52.6	.334	17.80				1	1	1			2		
Pittsburgh.....	2	14	54.9	.420	23.32					1	1		3	7	2	
G. L. and M. W.	1	6	54.5	.410	22.32								3	3		
Total.....	6	25	54.3	.400	21.98				1	2	2	6	10	4		

CATCHERS: 9-INCH.

1912.																
Eastern.....	1	2	63.0	\$0.257	\$16.19						2					
Pittsburgh.....	1	3	48.0	.368	17.58							3				
G. L. and M. W.	1	8	54.5	.686	37.39										8	
Total.....	3	13	54.3	.546	29.55						2	3			8	
1913.																
Eastern.....	1	2	63.0	.442	27.85								2			
Pittsburgh.....	1	3	50.7	.381	19.30							2	1			
G. L. and M. W.	1	8	54.5	.753	41.01											8
Total.....	3	13	54.9	.619	33.98							2	3			8

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

CATCHERS: 10-INCH.

Year and district.	Number of plants	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	1	4	48.8	\$0.312	\$15.21						2	2				
Pittsburgh.....	1	14	71.5	.488	34.86								12	2		
Total.....	2	18	66.4	.449	30.49						2	2	12	2		
1913.																
Eastern.....	1	4	48.8	.295	14.37						3	1				
Pittsburgh.....	1	14	71.5	.538	38.47								3	10	1	
Total.....	2	18	66.4	.484	33.12						3	1	3	10	1	

CATCHERS: 12-INCH.

1912.																
Eastern.....	4	12	58.9	\$0.352	\$20.49						4	6	2			
Pittsburgh.....	5	13	63.2	.391	25.08						2	6	3	2		
Total.....	9	25	61.1	.372	22.88						6	12	5	2		
1913.																
Eastern.....	4	12	58.9	.359	20.95						4	4	4			
Pittsburgh.....	5	13	62.8	.467	29.25							4	3	6		
Total.....	9	25	61.0	.416	25.26						4	8	7	6		

CATCHERS: 13-INCH, 14-INCH, AND 15-INCH.

1912.																
Eastern.....	1	2	72.0	\$0.375	\$27.00							2				
Pittsburgh.....	2	5	57.6	.419	23.78							2	3			
Total.....	3	7	61.7	.407	24.70							4	3			
1913.																
Eastern.....	1	2	72.0	.363	26.14							2				
Pittsburgh.....	2	5	56.8	.500	28.15								3	2		
Total.....	3	7	61.1	.461	27.58							2	3	2		

CATCHERS: 16-INCH.

1912.																
Eastern.....	1	1	64.5	\$0.452	\$29.15									1		
Pittsburgh.....	2	6	64.3	.412	26.52									6		
Total.....	3	7	64.4	.418	26.90									7		
1913.																
Eastern.....	1	2	64.5	.495	31.93									2		
Pittsburgh.....	2	6	64.3	.500	32.18									4	2	
Total.....	3	8	64.4	.499	32.12									6	2	

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

CATCHERS: 18-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	4	7	56.6	\$0.355	\$20.18					1		4	2			
Pittsburgh.....	2	4	56.3	.637	36.34									2		2
G. L. and M. W.....	1	2	62.8	.515	32.29										2	
Total.....	7	13	57.5	.467	27.01					1		4	4	2		2
1913.																
Eastern.....	4	8	56.4	.348	19.71					2		2	4			
Pittsburgh.....	2	4	56.3	.651	37.04										2	2
G. L. and M. W.....	1	2	62.8	.548	34.39										2	
Total.....	7	14	57.3	.463	26.76					2		2	4	4		2

CATCHERS: ALL SIZES.

1912.																
Eastern.....	8	33	57.8	\$0.332	\$19.27			1		2	10	14	6			
Pittsburgh.....	10	59	61.3	.419	26.09						4	23	26	4		2
G. L. and M. W.....	2	16	55.5	.568	31.50								6	2	8	
Total.....	20	108	59.4	.415	24.81			1		2	14	37	38	6	8	2
1913.																
Eastern.....	8	35	57.6	.358	20.78			1	3	8	9	12	2			
Pittsburgh.....	10	59	61.6	.487	30.26				1	1	9	21	24	1		2
G. L. and M. W.....	2	16	55.5	.598	33.17						3	3	2			8
Total.....	20	110	59.4	.462	27.67			1	4	9	21	36	28	1	10	

STRANDERS: 8-INCH.

1912.																
Eastern.....	3	7	56.1	\$0.228	\$12.89			1		5		1				
Pittsburgh.....	6	48	61.0	.236	14.57	1	2	3	7	3	20	8				
G. L. and M. W.....	2	12	61.5	.245	15.32					6	6					
Total.....	11	67	60.6	.236	14.53	1	2	4	7	14	26	9				
1913.																
Eastern.....	3	6	53.4	.276	14.84				1	3		2				
Pittsburgh.....	6	48	61.4	.265	18.29	7		1	1	7	9	13	10			
G. L. and M. W.....	2	12	61.5	.344	21.42					2		10				
Total.....	11	66	60.7	.302	18.54	7		1	2	12	9	25	10			

STRANDERS: 9-INCH.

1912.																
Eastern.....	2	13	57.5	\$0.176	\$10.07	2		2	9							
Pittsburgh.....	4	16	66.0	.207	13.58			4		12						
G. L. and M. W.....	3	28	52.8	.291	15.42					2	9	17				
Total.....	9	57	57.6	.241	13.68	2		6	9	14	9	17				
1913.																
Eastern.....	2	13	57.5	.211	12.26				9	2		2				
Pittsburgh.....	4	16	63.8	.230	14.62			2		10	4					
G. L. and M. W.....	3	28	52.8	.367	19.20					2		20	6			
Total.....	9	57	56.9	.293	16.33			2	9	14	4	22	6			

¹Including 2 employees earning 10 and under 12 cents per hour.

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

STRANDERS: 10-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	2	8	54.0	\$0.218	\$11.81				1	7						
Pittsburgh.....	5	47	55.4	.398	20.68					8	9	9	9	12		
Total.....	7	55	55.2	.372	19.39				1	15	9	9	9	12		
1913.																
Eastern.....	2	8	53.1	.244	13.14				2	2	4					
Pittsburgh.....	5	47	55.4	.417	22.09						8	18	9	12		
Total.....	7	55	55.1	.392	20.77				2	2	12	18	9	12		

STRANDERS: 12-INCH.

1912.																
Eastern.....	4	10	58.3	\$0.273	\$16.06					4	2	4				
Pittsburgh.....	4	23	64.2	.216	13.63				14	2	6	1				
G. L. and M. W.....	1	10	72.0	.559	40.25									10		
Total.....	9	43	64.7	.309	20.38				14	6	8	5		10		
1913.																
Eastern.....	4	16	56.9	.251	14.45					6	8	2				
Pittsburgh.....	4	23	62.0	.274	16.54					15	5		1	2		
G. L. and M. W.....	1	10	72.0	.531	38.23									10		
Total.....	9	49	62.4	.319	20.28					21	13	2	1	12		

STRANDERS: 13-INCH, 14-INCH, AND 15-INCH.

1912.																
G. L. and M. W.....	1	22	60.0	\$0.217	\$13.01			6		16						
1913.																
G. L. and M. W.....	1	11	60.0	.255	15.27					3	8					

STRANDERS: 16-INCH.

1912.																
G. L. and M. W.....	1	8	55.0	\$0.431	\$23.71								8			
1913.																
G. L. and M. W.....	1	8	55.0	.523	28.77									8		

STRANDERS: ALL SIZES.

1912.																
Eastern.....	6	38	56.7	\$0.220	\$12.53	2		3	10	16	2	5				
Pittsburgh.....	8	134	60.2	.286	16.43	15	2	7	21	25	35	18	9	12		
G. L. and M. W.....	6	80	58.7	.311	18.67			6		24	15	17	8	10		
Total.....	20	252	59.2	.284	16.56	17	2	16	31	65	52	40	17	22		
1913.																
Eastern.....	6	43	55.9	.241	13.60				12	13	12	6				
Pittsburgh.....	8	134	59.7	.326	18.88	7		3	1	32	26	31	20	14		
G. L. and M. W.....	6	69	58.5	.337	22.83					7	8	30	6	18		
Total.....	20	246	58.7	.328	19.07	7		3	13	52	46	67	26	32		

¹ Including 2 employees earning 10 and under 12 cents per hour.

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

FINISHERS: 8-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	2	3	58.8	\$0.296	\$17.45						1	2				
Pittsburgh.....	6	22	58.0	.310	18.17			2		1	6	11	1	1		
G. L. and M. W.....	2	6	64.0	.266	16.85					2	2					
Total.....	10	31	59.3	.301	17.84			2		3	9	15	1	1		
1913.																
Eastern.....	2	3	55.2	.347	19.14							3				
Pittsburgh.....	6	22	58.7	.377	22.32				2	2	2	7	5	4		
G. L. and M. W.....	2	6	64.0	.275	17.47					2	2	2				
Total.....	10	31	59.4	.354	21.07				2	4	4	12	5	4		

FINISHERS: 9-INCH.

1912.																
Eastern.....	1	3	55.0	\$0.300	\$16.50							3				
Pittsburgh.....	5	10	60.6	.279	16.47			1	1		5	3				
G. L. and M. W.....	3	11	68.2	.281	18.94	1				4	4		2			
Total.....	9	24	63.4	.282	17.61	1		1	1	4	9	6	2			
1913.																
Eastern.....	1	3	55.0	.300	16.50							3				
Pittsburgh.....	5	10	60.2	.288	16.96			1	1		5	2	1			
G. L. and M. W.....	3	11	68.2	.295	19.92			1			8		2			
Total.....	9	24	63.2	.293	18.26			2	1		13	5	3			

FINISHERS: 10-INCH.

1912.																
Eastern.....	1	2	59.3	\$0.314	\$18.60							2				
Pittsburgh.....	4	10	67.7	.377	25.93						3	4	1	2		
Total.....	5	12	66.3	.367	24.71						3	6	1	2		
1913.																
Eastern.....	1	2	57.5	.396	22.77							2				
Pittsburgh.....	4	10	67.7	.433	29.79						1	3	2	2	2	
Total.....	5	12	66.0	.427	28.62						1	5	2	2	2	

FINISHERS: 12-INCH.

1912.																
Eastern.....	3	5	54.1	\$0.229	\$12.41				2		3					
Pittsburgh.....	5	13	63.2	.301	18.77					5	3	3	2			
G. L. and M. W.....	2	6	70.0	.400	28.24						4				2	
Total.....	10	24	63.0	.311	19.81				2	5	10	3	2		2	
1913.																
Eastern.....	3	5	54.1	.266	14.40				2		1	2				
Pittsburgh.....	5	13	62.8	.378	22.96						4	5	1	2	1	
G. L. and M. W.....	2	6	70.0	.412	29.05						2	2			2	
Total.....	10	24	62.8	.363	22.70				2		7	9	1	2	3	

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.**FINISHERS: 13-INCH, 14-INCH, AND 15-INCH.**

Year and dis- trict.	Num- ber of plants	Num- ber of em- ploy- ees.	Aver- age full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time week- ly earn- ings.	Number of employees earning each classified rate of wages per hour.									
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.															
Eastern.....	1	4	72.0	\$0.305	\$21.96	.....	.....	.....	.....	.....	.....	4	.....	.....	.....
Pittsburgh.....	2	7	61.7	.337	19.89	.....	.....	.....	.....	.....	4	.....	3	.....	.....
G. L. and M. W.	1	4	60.0	.302	18.12	.....	.....	.....	.....	.....	.....	4	.....	.....	.....
Total.....	4	15	64.0	.319	19.97	.....	.....	.....	.....	.....	4	8	3	.....	.....
1913.															
Eastern.....	1	4	72.0	.288	20.74	.....	.....	.....	.....	.....	4	.....	.....	.....	.....
Pittsburgh.....	2	7	59.4	.378	21.61	.....	.....	.....	.....	.....	2	2	2	1	.....
G. L. and M. W.	1	2	60.0	.345	20.70	.....	.....	.....	.....	.....	.....	2	.....	.....	.....
Total.....	4	13	63.4	.345	21.20	.....	.....	.....	.....	.....	6	4	2	1	.....

FINISHERS: 16-INCH.

1912.																
Eastern.....	1	2	57.5	\$0.275	\$15.81						2					
Pittsburgh.....	2	10	64.4	.276	17.77			2			6	2				
G. L. and M. W.....	1	8	57.8	.528	30.77								4		4	
Total.....	4	20	61.1	.377	22.77			2			8	2	4		4	
1913.																
Eastern.....	1	2	57.5	.361	20.76							2				
Pittsburgh.....	2	10	64.4	.375	24.14							8	2			
G. L. and M. W.....	1	6	56.8	.486	27.47								2	4		
Total.....	4	18	61.1	.410	24.87							10	4	4		

FINISHERS: 18-INCH.

1912.																
Eastern.....	2	4	57.0	\$0.285	\$16.29						2	2				
Pittsburgh.....	2	5	58.2	.535	31.39							1		4		
G. L. and M. W.....	1	2	62.8	.438	27.48								2			
Total.....	5	11	58.6	.427	25.19						2	3	2	4		
1913.																
Eastern.....	2	5	57.6	.288	16.63						2	3				
Pittsburgh.....	2	5	58.2	.531	31.11							1		4		
G. L. and M. W.....	1	2	62.8	.438	27.48								2			
Total.....	5	12	58.7	.414	24.47						2	4	2	4		

FINISHERS: ALL SIZES.

1912.																
Eastern.....	5	23	59.2	\$0.281	\$16.77				2		8	13				
Pittsburgh.....	10	77	61.7	.326	20.02			5	1	6	27	24	7	7		
G. L. and M. W.....	6	37	64.4	.362	23.06	1				6	10	6	8		6	
Total.....	21	137	62.0	.328	20.29	1		5	3	12	45	43	15	7	6	
1913.																
Eastern.....	5	24	58.6	.307	18.00				2		7	15				
Pittsburgh.....	10	77	61.5	.383	23.45			1	3	2	14	28	13	13	3	
G. L. and M. W.....	6	33	64.9	.359	23.01			1		2	12	6	6	4	2	
Total.....	21	134	61.8	.363	22.36			2	5	4	33	49	19	17	5	

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

HOOK UPS: 12-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	5	11	57.6	\$0.235	\$13.70	.....	2	2	3	.....	4	.....	.....	.....	.....	.....
Pittsburgh.....	5	32	60.6	.225	13.43	.....	.....	12	7	13	.....	.....	.....	.....	.....	.....
G. L. and M. W.	3	13	71.5	.408	29.24	.....	.....	.....	.....	2	3	8	.....	.....	.....	.....
Total.....	13	56	62.5	.269	17.15	.....	2	2	12	10	15	7	8	.....	.....	.....
1913.																
Eastern.....	5	12	57.4	.267	15.36	.....	2	.....	2	4	2	2	.....	.....	.....	.....
Pittsburgh.....	5	32	60.8	.317	18.69	.....	.....	.....	11	3	12	6	.....	.....	.....	.....
G. L. and M. W.	3	14	66.4	.384	25.63	.....	.....	.....	.....	6	8	.....	.....	.....	.....	.....
Total.....	13	58	61.5	.323	19.68	.....	2	.....	13	7	20	16	.....	.....	.....	.....

HOOK UPS: 13-INCH, 14-INCH, AND 15-INCH.

1912.																
Eastern.....	1	12	72.0	\$0.189	\$13.58	.....	.....	8	4	.....	.....	.....	.....	.....	.....	.....
Pittsburgh.....	2	17	59.3	.272	15.28	.....	.....	4	4	.....	9	.....	.....	.....	.....	.....
G. L. and M. W.	2	22	62.9	.218	13.91	.....	.....	10	4	8	.....	.....	.....	.....	.....	.....
Total.....	5	51	63.8	.229	14.29	.....	.....	10	16	8	8	9	.....	.....	.....	.....
1913.																
Eastern.....	1	12	72.0	.224	16.15	.....	.....	.....	12	.....	.....	.....	.....	.....	.....	.....
Pittsburgh.....	2	17	57.9	.313	17.36	.....	.....	.....	8	.....	6	3	.....	.....	.....	.....
G. L. and M. W.	2	14	64.0	.236	15.20	.....	.....	.....	7	7	.....	.....	.....	.....	.....	.....
Total.....	5	43	63.8	.263	16.32	.....	.....	.....	27	7	6	3	.....	.....	.....	.....

HOOK UPS: 16-INCH.

1912.																
Eastern.....	2	6	62.2	\$0.241	\$15.10	.....	.....	2	.....	4	.....	.....	.....	.....	.....	.....
Pittsburgh.....	2	14	64.3	.264	17.00	.....	.....	2	4	6	2	.....	.....	.....	.....	.....
G. L. and M. W.	1	12	56.8	.272	15.50	.....	.....	.....	.....	12	.....	.....	.....	.....	.....	.....
Total.....	5	32	61.1	.263	16.08	.....	.....	4	4	22	2	.....	.....	.....	.....	.....
1913.																
Eastern.....	2	10	63.1	.290	18.35	.....	.....	.....	2	.....	8	.....	.....	.....	.....	.....
Pittsburgh.....	2	14	64.3	.370	23.79	.....	.....	.....	.....	.....	10	4	.....	.....	.....	.....
G. L. and M. W.	1	10	56.1	.310	17.32	.....	.....	.....	1	1	8	.....	.....	.....	.....	.....
Total.....	5	34	61.5	.329	20.28	.....	.....	.....	3	1	26	4	.....	.....	.....	.....

HOOK UPS: 18-INCH.

1912.																
Eastern.....	4	16	57.5	\$0.184	\$10.56	2	2	4	1	7	.....	.....	.....	.....	.....	.....
Pittsburgh.....	2	14	58.6	.330	19.40	.....	.....	.....	2	.....	12	.....	.....	.....	.....	.....
G. L. and M. W.	1	8	62.8	.282	17.67	.....	.....	.....	2	.....	6	.....	.....	.....	.....	.....
Total.....	7	38	59.0	.258	15.31	2	2	4	3	9	18	.....	.....	.....	.....	.....
1913.																
Eastern.....	4	18	57.2	.223	12.64	.....	2	1	4	9	.....	2	.....	.....	.....	.....
Pittsburgh.....	2	14	58.6	.326	19.19	.....	.....	.....	.....	2	12	.....	.....	.....	.....	.....
G. L. and M. W.	1	8	62.8	.334	20.94	.....	.....	.....	.....	2	6	.....	.....	.....	.....	.....
Total.....	7	40	58.8	.281	16.60	.....	2	1	4	13	18	2	.....	.....	.....	.....

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

HOOK UPS: ALL SIZES.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	7	45	62.0	\$0.205	\$12.74	2	4	6	11	14	4	4				
Pittsburgh.....	8	77	60.6	.261	15.57				18	17	19	23				
G. L. and M. W.	7	55	63.6	.284	18.43			10	6		22	9	8			
Total.....	22	177	61.9	.254	15.74	2	4	16	35	31	45	36	8			
1913.																
Eastern.....	7	52	61.8	.246	15.18		4	1	4	25	4	10	4			
Pittsburgh.....	8	77	60.4	.327	19.41					21	3	40	13			
G. L. and M. W.	7	46	62.8	.314	19.83				10	8	20	8				
Total.....	22	175	61.4	.300	18.27		4	1	4	56	15	70	25			

ROLL HANDS, OTHER: 8-INCH.

1912.																
Eastern.....	2	5	54.3	\$0.227	\$12.48			1	1	1	2					
Pittsburgh.....	6	24	59.7	.265	15.75	15	1			3	7	6	1	1		
G. L. and M. W.	1	4	69.0	.167	11.52			4								
Total.....	9	33	60.0	.248	14.75	15	1	5	1	4	9	6	1	1		
1913.																
Eastern.....	2	8	52.7	.297	15.80				2			6				
Pittsburgh.....	6	24	60.3	.296	17.87	16				1	4	9	3	1		
G. L. and M. W.	1	4	69.0	.183	12.63				4							
Total.....	9	36	59.6	.284	16.83	16			6	1	4	15	3	1		

ROLL HANDS, OTHER: 9-INCH.

1912.																
Eastern.....	1	2	63.0	\$0.127	\$8.00	2										
Pittsburgh.....	3	18	52.5	.289	15.07		1	3		2	7	3		2		
G. L. and M. W.	2	16	59.7	.238	13.65			8			6	2				
Total.....	6	36	56.3	.257	14.05	2	1	11		2	13	5		2		
1913.																
Eastern.....	1	2	63.0	.227	14.30					2						
Pittsburgh.....	3	18	54.3	.300	16.17			4			9	1	2	2		
G. L. and M. W.	2	16	59.7	.254	14.63				8			8				
Total.....	6	36	57.2	.275	15.38			4	8	2	9	9	2	2		

ROLL HANDS, OTHER: 10-INCH.

1912.																
Eastern.....	1	4	48.8	\$0.185	\$9.52			1	1	2						
Pittsburgh.....	5	29	68.3	.361	24.54					3	14	4	4		2	2
Total.....	6	33	66.0	.341	22.72			1	1	5	14	4	4		2	2
1913.																
Eastern.....	1	4	48.8	.190	9.26				4							
Pittsburgh.....	5	29	68.3	.414	28.25					2		18	3	2	1	3
Total.....	6	33	66.0	.387	25.95				4	2		18	3	2	1	3

¹ Including 3 employees earning 10 and under 12 cents per hour.

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

ROLL HANDS, OTHER: 12-INCH.

Year and district.	Number of plants	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.									
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.															
Eastern.....	1	4	64.5	\$0.217	\$14.00	.....	.....	.....	.....	4	.....	.....	.....	.....	.....
Pittsburgh.....	5	10	62.4	.247	14.90	.....	.....	.....	2	.....	4	1	3	.....	.....
G. L. and M. W.	1	14	72.0	.330	23.76	.....	.....	.....	.....	.....	.....	.....	14	.....	.....
Total.....	7	28	67.5	.284	19.20	.....	.....	.....	2	.....	8	1	17	.....	.....
1913.															
Eastern.....	1	4	64.5	.210	13.55	.....	.....	.....	.....	4	.....	.....	.....	.....	.....
Pittsburgh.....	5	10	62.0	.326	19.16	.....	.....	.....	.....	2	2	2	1	.....	3
G. L. and M. W.	1	14	72.0	.316	22.75	.....	.....	.....	.....	.....	.....	.....	14	.....	.....
Total.....	7	28	67.4	.304	20.15	.....	.....	.....	.....	2	6	2	15	.....	3

ROLL HANDS, OTHER: 13-INCH, 14-INCH, AND 15-INCH.

1912.																
Eastern.....	1	4	72.0	\$0.293	\$21.10						4					
Pittsburgh.....	2	21	61.7	.263	15.23			10			2	9				
Total.....	3	25	63.4	.268	16.17			10			6	9				
1913.																
Eastern.....	1	4	72.0	.275	19.80						4					
Pittsburgh.....	2	15	56.8	.352	19.26				4			4	7			
Total.....	3	19	60.0	.335	19.38				4		4	4	7			

ROLL HANDS, OTHER: 16-INCH.

1912.																
Pittsburgh.....	1	6	64.5	\$0.350	\$22.59						4		2			
1913.																
Pittsburgh.....	1	6	64.5	.408	26.36							4		2		

ROLL HANDS, OTHER: 18-INCH.

1912.																
Eastern.....	3	5	57.8	\$0.226	\$13.02					4	1					
Pittsburgh.....	1	2	59.5	.570	33.92										2	
G. L. and M. W.	1	2	62.8	.257	16.13						2					
Total.....	5	9	59.3	.309	18.35					4	3				2	
1913.																
Eastern.....	3	6	57.3	.264	15.22					2	3	1				
Pittsburgh.....	1	2	59.5	.563	33.50										2	
G. L. and M. W.	1	2	62.8	.365	22.90							2				
Total.....	5	10	58.9	.344	20.41					2	3	3			2	

TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.**ROLL HANDS, OTHER: ALL SIZES.**

Year and district.	Number of plants	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	6	24	59.5	\$0.222	\$13.41	2		2	2	11	7					
Pittsburgh.....	9	110	61.7	.302	18.48	15	2	15		12	35	25	7	5	2	2
G. L. and M. W.....	3	36	65.7	.267	17.48			12			8	16				
Total.....	18	170	62.2	.284	17.56	17	2	29	2	23	50	41	7	5	2	2
1913.																
Eastern.....	6	28	58.3	.254	14.88				6	8	7	7				
Pittsburgh.....	9	104	61.4	.352	21.59	16		4	6	5	15	37	15	12	1	3
G. L. and M. W.....	3	36	65.7	.276	18.03				12			24				
Total.....	18	168	61.8	.320	19.71	16		4	24	13	22	68	15	12	1	3

HOTBED MEN.

1912.																
Eastern.....	8	109	58.4	\$0.180	\$10.49	8	29	33	12	17	9	1				
Pittsburgh.....	10	236	61.5	.200	12.16	39	9	36	50	62	23	17				
G. L. and M. W.....	8	110	64.7	.180	12.06		4	69	11	20	2	4				
Total.....	26	455	61.5	.192	11.73	47	42	138	73	99	34	22				
1913.																
Eastern.....	8	121	58.7	.203	11.95	2	4	16	59	29	11					
Pittsburgh.....	10	244	61.6	.235	14.37	19	17	5	23	103	44	23	10			
G. L. and M. W.....	8	102	61.7	.209	12.96			6	50	36	6	4				
Total.....	26	467	60.9	.221	13.43	21	21	27	132	168	61	27	10			

SHEARMEN.

1912.																
Eastern.....	8	39	58.5	\$0.207	\$11.73	2	5	12	8	6	2	1	2	1		
Pittsburgh.....	9	71	62.3	.285	17.42			2	6	24	19	12	4	4		
G. L. and M. W.....	7	46	65.7	.238	15.39			2	26	5	3	10				
Total.....	24	156	62.4	.251	15.40	2	5	16	40	35	24	23	6	5		
1913.																
Eastern.....	8	46	58.2	.230	13.14			8	11	17	6	1	3			
Pittsburgh.....	9	71	62.2	.334	20.43			2	2	9	24	18	9	4	3	
G. L. and M. W.....	7	42	65.8	.270	17.47					29	3	2	7		1	
Total.....	24	159	62.0	.287	17.54			10	13	55	33	21	19	4	4	

¹ Including 3 employees earning 10 and under 12 cents per hour.² Including 3 employees earning 8 and under 9 cents, 5 employees earning 9 and under 10 cents, and 17 employees earning 10 and under 12 cents per hour.³ Including 3 employees earning 7 and under 8 cents, 3 employees earning 8 and under 9 cents, 2 employees earning 9 and under 10 cents, and 5 employees earning 10 and under 12 cents per hour.

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TABLE II.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Concluded.

SHEARMEN'S HELPERS.

Year and district.	Number of plants	Number of employees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Number of employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
1912.																
Eastern.....	6	55	63.0	\$0.150	\$0.38	¹ 20	16	12	7	...	...	...	...	...	...	...
Pittsburgh.....	9	192	61.7	.196	12.03	² 12	14	57	14	74	19	2	...	...	...	...
G. L. and M. W..	7	90	67.1	.177	11.73	...	...	74	2	6	8	...	...	...	...	...
Total.....	22	337	63.4	.183	11.52	³ 32	30	143	23	80	27	2	...	...	...	...
1913.																
Eastern.....	6	49	61.4	.166	10.14	8	20	7	8	4	2	...	...	...	...	...
Pittsburgh.....	9	191	61.4	.231	14.04	⁴ 6	2	4	30	99	18	30	2	...	...	...
G. L. and M. W..	7	76	67.2	.203	13.46	...	...	10	50	10	2	4	...	...	...	...
Total.....	22	316	62.8	.214	13.30	⁴ 14	22	21	88	113	22	34	2	...	...	...

BUNDLERS.

1912.																
Pittsburgh.....	7	129	61.6	\$0.194	\$11.96	...	...	2	101	24	2	...	...	...	...	...
1913.																
Pittsburgh.....	7	136	61.4	.228	14.05	...	...	2	...	120	12	2	...	...	...	...

LABORERS.

1912.																
Eastern.....	5	140	58.9	\$0.145	\$8.49	53	47	40	...	...	...	...	...	...	...	...
Pittsburgh.....	9	283	67.1	.163	10.91	24	12	247	...	...	...	...	...	...	...	...
G. L. and M. W..	7	113	67.1	.170	11.37	...	1	98	14	...	...	...	...	...	...	...
Total.....	21	536	65.0	.160	10.38	77	60	385	14	...	...	...	...	...	...	...
1913.																
Eastern.....	5	186	58.7	.160	9.37	8	40	116	22	...	...	...	...	...	...	...
Pittsburgh.....	9	395	66.0	.182	12.03	...	12	210	127	46	...	...	...	...	...	...
G. L. and M. W..	7	124	67.2	.194	13.04	...	...	17	88	19	...	...	...	...	...	...
Total.....	21	705	64.3	.178	11.51	8	52	343	237	65	...	...	...	...	...	...

¹ Including 5 employees earning 10 and under 12 cents per hour.

² Including 2 employees earning 9 and under 10 cents and 6 employees earning 10 and under 12 cents per hour.

³ Including 2 employees earning 9 and under 10 cents and 11 employees earning 10 and under 12 cents per hour.

⁴ Including 2 employees earning 6 and under 7 cents and 2 employees earning 10 and under 12 cents per hour.

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS.

[The figures for each group of years are for identical plants.]

NUMBER.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Stockers:											
8 plants.....	1907	93	64.4	.....	8	.....	8	65	8	4	.....
	1908	90	64.1	.....	10	.....	8	59	13	.....	.....
	1909	88	64.2	.....	8	.....	8	69	3	.....	.....
	1910	87	64.3	.....	8	.....	7	69	3	.....	.....
13 plants.....	1910	170	59.0	27	42	.....	7	86	8	.....	.....
	1911	164	59.6	27	28	13	20	70	6	.....	.....
15 plants.....	1911	211	60.9	27	28	13	44	72	27	.....	.....
	1912	217	60.9	27	32	4	59	67	28	.....	.....
17 plants.....	1912	215	60.9	27	34	8	45	73	28	.....	.....
	1913	226	60.6	.....	69	4	44	102	7	.....	.....
Heaters:											
15 plants.....	1907	121	63.9	3	6	10	3	85	12	.....	2
	1908	112	63.9	3	14	6	2	68	17	.....	2
	1909	112	64.0	3	14	6	2	78	5	2	2
	1910	142	64.2	3	16	4	.....	103	10	4	2
25 plants.....	1910	217	62.9	18	25	4	16	126	22	4	2
	1911	180	62.6	18	26	6	2	107	17	2	2
26 plants.....	1911	184	62.7	18	26	6	2	111	17	2	2
	1912	199	62.4	18	12	31	2	114	18	2	2
26 plants.....	1912	196	61.8	18	28	30	2	98	16	2	2
	1913	211	61.7	3	45	34	3	112	9	3	2
Heaters' helpers:											
14 plants.....	1907	167	65.3	3	8	12	4	108	26	6	.....
	1908	153	65.1	3	16	8	4	86	32	4	.....
	1909	151	65.0	3	16	8	4	112	2	6	.....
	1910	166	65.2	3	16	8	4	124	3	4	4
24 plants.....	1910	295	62.6	48	23	8	23	154	31	4	4
	1911	281	62.5	48	26	12	7	150	30	8	.....
25 plants.....	1911	293	62.7	48	26	12	7	162	30	8	.....
	1912	319	62.2	45	29	44	6	161	30	4	.....
24 plants.....	1912	318	61.9	45	21	72	6	150	20	4	.....
	1913	324	62.0	3	63	76	5	163	10	2	2
Chargers and helpers:											
12 plants.....	1907	104	65.5	.....	6	4	5	71	16	2	.....
	1908	102	65.6	.....	6	4	5	67	20	.....	.....
	1909	107	65.9	.....	6	4	4	80	8	5	.....
	1910	110	66.3	.....	6	4	4	86	10	.....	.....
18 plants.....	1910	179	65.3	12	10	4	12	106	35	.....	.....
	1911	177	65.1	12	11	10	5	106	33	.....	.....
19 plants.....	1911	185	64.8	12	15	10	5	110	33	.....	.....
	1912	182	65.0	9	17	6	6	111	33	.....	.....
19 plants.....	1912	181	64.3	12	13	26	6	88	36	.....	.....
	1913	185	63.7	.....	26	26	7	110	16	.....	.....
Drag downs:											
11 plants.....	1907	86	64.4	.....	8	8	.....	52	16	2	.....
	1908	82	63.9	.....	16	4	.....	43	19	.....	.....
	1909	83	64.0	.....	16	4	.....	58	3	2	.....
	1910	89	64.0	.....	16	4	.....	62	3	4	.....
19 plants.....	1910	132	65.1	.....	20	4	4	75	25	4	.....
	1911	123	64.9	.....	23	5	.....	68	25	2	.....
20 plants.....	1911	127	64.7	.....	25	5	.....	70	25	2	.....
	1912	130	64.3	.....	27	6	.....	70	25	2	.....
20 plants.....	1912	121	63.8	.....	24	20	.....	54	21	2	.....
	1913	124	63.1	.....	24	19	2	68	9	2	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Roll engineers:											
13 plants.....	1907	58	72.3					31	5	18	4
	1908	56	71.4					28	10	16	2
	1909	56	71.5					30	6	18	2
	1910	58	71.7					32	4	19	3
22 plants.....	1910	99	72.0				3	40	26	23	7
	1911	95	70.4				3	54	13	23	2
	1912	97	70.0		4		1	51	12	27	2
20 plants.....	1912	93	70.1		4		1	49	12	25	2
	1913	97	70.5		6		2	39	9	39	2
Rollers, 8-inch:											
7 plants.....	1907	16	62.5		3	3	2	6	1	1	
	1908	16	62.6		3	3	2	6		1	
	1909	16	62.5		3	3	2	7	1		
	1910	15	62.7		4	1	2	8			
11 plants.....	1910	28	59.0	6	6	2	2	12			
	1911	29	58.0	6	7	4	2	9	1		
	1912	29	58.0	6	7	4	2	9	1		
	1913	29	58.1	2	13	2	2	9	1		
Rollers, 9-inch:											
6 plants.....	1907	12	66.7				3	7	2		
	1908	11	67.7				2	7	2		
	1909	11	67.1				2	8	1		
	1910	12	67.0				1	10	1		
11 plants.....	1910	24	63.2	3	1		5	12	3		
	1911	22	63.5	3	1		4	11	3		
	1912	23	63.1	3	1		5	11	3		
10 plants.....	1912	22	63.0	3	1		5	10	3		
	1913	22	62.8		4		6	10	2		
Rollers, 10-inch:											
5 plants.....	1907	12	67.3			2	2	4	2	2	
	1908	12	67.3			2	2	4	2	2	
	1909	12	67.0			2	2	5	3		
	1910	12	67.0			2	2	7	1		
7 plants.....	1910	18	65.0		4		2	9	3		
	1911	18	63.6		5		2	6	5		
	1912	18	63.6		5		2	6	5		
7 plants.....	1912	18	62.1		5	2	2	6	3		
	1913	18	61.9		5	2	2	6	3		
Rollers, 12-inch:											
7 plants.....	1907	15	68.1				2	6	7		
	1908	13	69.9					6	7		
	1909	13	69.8					8	5		
	1910	15	68.5				1	9	5		
13 plants.....	1910	27	64.4	3	2		3	12	7		
	1911	24	64.9	3	1	1		12	7		
	1912	26	64.3	3	2	1	1	12	7		
12 plants.....	1912	27	64.7	3	2	1	1	11	9		
	1913	28	64.4	1	4	1	3	11	8		
Rollers, 13-inch, 14-inch, and 15-inch:											
3 plants.....	1910	7	60.6	3				2	2		
	1911	7	60.6	3				2	2		
	1912	7	60.6	3				2	2		
4 plants.....	1912	9	63.1	3				2	4		
	1913	9	62.7		3		1	2	3		
Rollers, 16-inch:											
4 plants.....	1907	7	63.3			2	1	4			
	1908	7	63.3			2	1	4			
	1909	7	63.3			2	1	4			
	1910	9	62.3			3	1	5			

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Rollers, 16-inch—Concluded.											
5 plants.....	1910	11	62.6	.....	.....	3	2	6	.....	.....	.....
	1911	8	63.9	.....	.....	2	1	5	.....	.....	.....
6 plants.....	1911	12	62.8	.....	2	2	1	7	.....	.....	.....
	1912	12	62.4	.....	2	2	2	6	.....	.....	.....
5 plants.....	1912	11	61.7	.....	2	2	1	6	.....	.....	.....
	1913	11	61.5	.....	2	2	1	6	.....	.....	.....
Rollers, 18-inch:											
2 plants.....	1907	3	61.0	.....	.....	1	1	1	.....	.....	.....
	1908	4	58.3	.....	2	.....	1	1	.....	.....	.....
	1909	4	58.3	.....	2	.....	1	1	.....	.....	.....
	1910	4	58.3	.....	2	.....	.....	2	.....	.....	.....
5 plants.....	1910	9	60.8	.....	2	.....	2	5	.....	.....	.....
	1911	8	60.3	.....	2	1	1	4	.....	.....	.....
	1912	9	59.1	.....	4	.....	1	4	.....	.....	.....
7 plants.....	1912	12	58.7	.....	5	2	1	4	.....	.....	.....
	1913	13	58.8	.....	4	3	2	4	.....	.....	.....
Rollers, all sizes:											
13 plants.....	1907	65	65.5	.....	3	8	11	28	12	3	.....
	1908	63	65.7	.....	5	7	8	28	12	3	.....
	1909	63	65.5	.....	5	7	8	33	10	.....	.....
	1910	67	65.2	.....	6	6	7	41	7	.....	.....
22 plants.....	1910	124	62.4	15	15	5	16	58	15	.....	.....
	1911	116	62.0	15	16	8	10	49	18	.....	.....
23 plants.....	1911	120	62.0	15	18	8	10	51	18	.....	.....
	1912	124	61.7	15	21	7	13	50	18	.....	.....
24 plants.....	1912	128	61.6	15	22	11	12	48	20	.....	.....
	1913	130	61.5	3	35	10	17	48	17	.....	.....
Roughers, 8-inch:											
7 plants.....	1907	44	61.2	.....	15	8	.....	15	6	.....	.....
	1908	44	61.2	.....	15	8	.....	15	6	.....	.....
	1909	44	61.0	.....	15	8	.....	21	.....	.....	.....
	1910	41	61.2	.....	15	5	.....	21	.....	.....	.....
11 plants.....	1910	84	57.5	24	19	8	.....	33	.....	.....	.....
	1911	81	56.0	24	25	11	.....	21	.....	.....	.....
	1912	79	56.0	24	23	11	.....	21	.....	.....	.....
	1913	79	56.4	.....	47	17	.....	15	.....	.....	.....
Roughers, 9-inch:											
7 plants.....	1907	58	56.3	22	8	.....	.....	28	.....	.....	.....
	1908	54	60.4	12	8	.....	.....	30	4	.....	.....
	1909	54	56.5	21	8	.....	.....	21	4	.....	.....
	1910	58	56.9	22	8	.....	.....	24	4	.....	.....
12 plants.....	1910	88	58.2	28	10	.....	10	30	10	.....	.....
	1911	83	57.4	27	17	.....	.....	30	9	.....	.....
	1912	84	57.2	27	20	.....	.....	28	9	.....	.....
11 plants.....	1912	82	57.0	27	17	6	.....	23	9	.....	.....
	1913	83	56.6	22	23	6	.....	29	3	.....	.....
Roughers, 10-inch:											
5 plants.....	1907	33	64.4	3	.....	8	.....	8	14	.....	.....
	1908	37	65.2	3	.....	8	.....	8	18	.....	.....
	1909	37	65.0	3	.....	8	.....	26	.....	.....	.....
	1910	38	64.8	3	.....	9	.....	26	.....	.....	.....
7 plants.....	1910	51	64.8	3	8	.....	.....	34	6	.....	.....
	1911	51	63.3	3	12	.....	.....	30	6	.....	.....
	1912	51	63.3	3	12	.....	.....	30	6	.....	.....
7 plants.....	1912	53	61.7	3	8	16	.....	26	.....	.....	.....
	1913	53	61.5	3	8	16	.....	26	.....	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Roughers, 12-inch:											
8 plants.....	1907	62	64.5	9	.....	3	.....	26	24	.....	.....
	1908	55	64.1	9	6	.....	.....	14	26	.....	.....
	1909	54	67.7	.....	6	.....	.....	38	10	.....	.....
	1910	58	67.5	.....	6	.....	.....	40	12	.....	.....
14 plants.....	1910	89	64.6	6	16	.....	4	45	18	.....	.....
	1911	81	65.3	6	10	3	.....	45	17	.....	.....
	1912	85	64.4	6	16	.....	.....	47	16	.....	.....
13 plants.....	1912	81	64.4	6	15	2	.....	42	16	.....	.....
	1913	84	63.8	.....	24	2	.....	48	10	.....	.....
Roughers, 13-inch, 14-inch, and 15-inch:											
1 plant.....	1907	12	60.0	.....	.....	.....	12	.....	.....	.....	.....
	1908	12	60.0	.....	.....	.....	12	.....	.....	.....	.....
	1909	12	60.0	.....	.....	.....	12	.....	.....	.....	.....
	1910	12	60.0	.....	.....	.....	12	.....	.....	.....	.....
5 plants.....	1910	48	61.5	12	.....	.....	12	18	6	.....	.....
	1911	46	61.2	12	.....	.....	12	16	6	.....	.....
	1912	47	61.4	12	.....	.....	12	17	6	.....	.....
	1913	41	61.8	.....	12	.....	6	21	2	.....	.....
Roughers, 16-inch:											
5 plants.....	1907	36	63.0	.....	.....	8	.....	28	.....	.....	.....
	1908	32	63.1	.....	.....	8	.....	24	.....	.....	.....
	1909	34	63.4	.....	.....	8	.....	26	.....	.....	.....
	1910	42	62.2	.....	.....	14	.....	28	.....	.....	.....
	1911	34	63.4	.....	.....	8	.....	26	.....	.....	.....
6 plants.....	1911	42	62.3	.....	4	8	.....	30	.....	.....	.....
	1912	40	61.8	.....	4	8	.....	28	.....	.....	.....
5 plants.....	1912	32	61.0	.....	4	8	.....	20	.....	.....	.....
	1913	34	61.4	.....	4	8	.....	22	.....	.....	.....
Roughers, 18-inch:											
2 plants.....	1907	7	62.0	.....	.....	1	.....	6	.....	.....	.....
	1908	8	60.5	.....	2	.....	.....	6	.....	.....	.....
	1909	8	60.5	.....	2	.....	.....	6	.....	.....	.....
	1910	8	60.5	.....	2	.....	.....	6	.....	.....	.....
5 plants.....	1910	23	59.4	.....	8	.....	6	9	.....	.....	.....
	1911	19	60.3	.....	4	3	.....	12	.....	.....	.....
	1912	22	58.9	.....	10	.....	.....	12	.....	.....	.....
7 plants.....	1912	31	58.9	.....	11	8	.....	12	.....	.....	.....
	1913	33	58.6	.....	13	8	.....	12	.....	.....	.....
Roughers, all sizes:											
15 plants.....	1907	252	61.5	34	23	28	12	111	44	.....	.....
	1908	242	62.5	24	31	24	12	97	54	.....	.....
	1909	243	62.4	24	31	24	12	138	14	.....	.....
	1910	257	62.3	25	31	28	12	145	16	.....	.....
25 plants.....	1910	425	61.0	73	61	22	32	197	40	.....	.....
	1911	395	60.6	72	68	25	12	180	38	.....	.....
26 plants.....	1911	403	60.5	72	72	25	12	184	38	.....	.....
	1912	408	60.2	72	85	19	12	183	37	.....	.....
26 plants.....	1912	405	59.9	72	78	51	12	161	31	.....	.....
	1913	407	59.8	25	131	57	6	173	15	.....	.....
Catchers, 8-inch:											
3 plants.....	1907	18	56.6	.....	8	10	.....	.....	.....	.....	.....
	1908	18	56.6	.....	8	10	.....	.....	.....	.....	.....
	1909	18	56.6	.....	8	10	.....	.....	.....	.....	.....
	1910	17	56.4	.....	8	9	.....	.....	.....	.....	.....
6 plants.....	1910	26	54.3	6	10	10	.....	.....	.....	.....	.....
	1911	27	54.1	6	10	10	.....	.....	.....	.....	.....
	1912	25	54.1	6	8	11	.....	.....	.....	.....	.....
	1913	25	54.3	.....	16	9	.....	.....	.....	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Catchers, 9-inch:											
2 plants.....	1907	12	58.0	.....	8	.....	.....	4	.....	.....	.....
	1908	12	58.0	.....	8	.....	.....	4	.....	.....	.....
	1909	12	58.0	.....	8	.....	.....	4	.....	.....	.....
	1910	12	58.0	.....	8	.....	.....	4	.....	.....	.....
4 plants.....	1910	17	56.5	3	8	.....	2	4	.....	.....	.....
	1911	17	56.8	3	8	.....	.....	6	.....	.....	.....
	1912	15	55.7	3	8	.....	.....	4	.....	.....	.....
3 plants.....	1912	13	54.3	3	8	.....	.....	2	.....	.....	.....
	1913	13	54.9	.....	11	.....	.....	2	.....	.....	.....
Catchers, 10-inch:											
1 plant.....	1907	10	72.0	.....	.....	.....	.....	.....	10	.....	.....
	1908	10	72.0	.....	.....	.....	.....	.....	10	.....	.....
	1909	10	71.5	.....	.....	.....	.....	10	.....	.....	.....
	1910	10	71.5	.....	.....	.....	.....	10	.....	.....	.....
3 plants.....	1910	16	66.8	.....	4	.....	.....	10	2	.....	.....
	1911	16	65.9	.....	4	.....	.....	10	2	.....	.....
	1912	16	65.9	.....	4	.....	.....	10	2	.....	.....
2 plants.....	1912	18	66.4	.....	4	.....	.....	14	.....	.....	.....
	1913	18	66.4	.....	4	.....	.....	14	.....	.....	.....
Catchers, 12-inch:											
5 plants.....	1907	16	65.6	.....	.....	2	.....	10	4	.....	.....
	1908	17	64.1	.....	4	.....	.....	9	4	.....	.....
	1909	17	63.9	.....	4	.....	.....	13	.....	.....	.....
	1910	18	63.7	.....	4	.....	.....	14	.....	.....	.....
10 plants.....	1910	28	62.5	3	4	.....	2	17	2	.....	.....
	1911	27	62.1	3	5	1	.....	16	2	.....	.....
	1912	29	61.7	3	7	.....	.....	17	2	.....	.....
9 plants.....	1912	25	61.1	3	6	2	.....	12	2	.....	.....
	1913	25	61.0	.....	9	2	.....	14	.....	.....	.....
Catchers, 13-inch, 14-inch, and 15-inch:											
3 plants.....	1910	7	61.7	3	.....	.....	.....	.....	4	.....	.....
	1911	7	61.7	3	.....	.....	.....	.....	4	.....	.....
	1912	7	61.7	3	.....	.....	.....	.....	4	.....	.....
	1913	7	61.1	.....	3	.....	.....	2	2	.....	.....
Catchers, 16-inch:											
4 plants.....	1907	10	64.5	.....	.....	.....	1	9	.....	.....	.....
	1908	9	65.0	.....	.....	.....	.....	9	.....	.....	.....
	1909	9	65.0	.....	.....	.....	.....	9	.....	.....	.....
	1910	12	64.6	.....	.....	.....	.....	12	.....	.....	.....
	1911	9	65.0	.....	.....	.....	.....	9	.....	.....	.....
	1912	9	64.5	.....	.....	.....	.....	9	.....	.....	.....
3 plants.....	1912	7	64.4	.....	.....	.....	.....	7	.....	.....	.....
	1913	8	64.4	.....	.....	.....	.....	8	.....	.....	.....
Catchers, 18-inch:											
2 plants.....	1907	3	61.0	.....	.....	1	.....	2	.....	.....	.....
	1908	4	58.3	.....	2	.....	.....	2	.....	.....	.....
	1909	4	58.3	.....	2	.....	.....	2	.....	.....	.....
	1910	4	58.3	.....	2	.....	.....	2	.....	.....	.....
5 plants.....	1910	9	58.6	.....	4	.....	2	3	.....	.....	.....
	1911	8	59.0	.....	3	1	.....	4	.....	.....	.....
	1912	9	58.0	.....	5	.....	.....	4	.....	.....	.....
7 plants.....	1912	13	57.5	.....	7	2	.....	4	.....	.....	.....
	1913	14	57.3	.....	8	2	.....	4	.....	.....	.....
Catchers, all sizes:											
11 plants.....	1907	69	62.5	.....	16	13	1	25	14	.....	.....
	1908	70	62.0	.....	22	10	.....	24	14	.....	.....
	1909	70	61.9	.....	22	10	.....	38	.....	.....	.....
	1910	73	62.0	.....	22	9	.....	42	.....	.....	.....
20 plants.....	1910	115	60.2	15	30	10	6	46	8	.....	.....
	1911	111	59.9	15	30	13	.....	45	8	.....	.....
	1912	110	59.7	15	32	11	.....	44	8	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employ-ees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Catchers, all sizes—Concluded.											
20 plants.....	1912	108	59.4	15	33	15	.....	39	6	.....	.....
	1913	110	59.4	.....	51	13	.....	44	2	.....	.....
Stranders, 8-inch:											
7 plants.....	1907	56	62.6	.....	6	20	.....	22	8	.....	.....
	1908	56	62.8	.....	6	20	.....	22	8	.....	.....
	1909	56	62.7	.....	6	20	.....	30	.....	.....	.....
	1910	54	62.8	.....	6	18	.....	30	.....	.....	.....
11 plants.....	1910	75	61.6	6	8	19	.....	42	.....	.....	.....
	1911	73	60.4	6	12	25	.....	30	.....	.....	.....
	1912	73	60.4	6	14	21	.....	32	.....	.....	.....
11 plants.....	1912	67	60.6	6	8	27	.....	26	.....	.....	.....
	1913	66	60.7	.....	16	24	.....	26	.....	.....	.....
Stranders, 9-inch:											
6 plants.....	1907	41	56.2	18	.....	.....	.....	23	.....	.....	.....
	1908	39	56.4	18	.....	.....	.....	19	2	.....	.....
	1909	39	56.3	18	.....	.....	.....	19	2	.....	.....
	1910	39	56.3	18	.....	.....	.....	19	2	.....	.....
10 plants.....	1910	64	59.1	18	3	.....	10	25	8	.....	.....
	1911	62	58.6	18	9	.....	.....	27	8	.....	.....
	1912	61	58.0	18	12	.....	.....	23	8	.....	.....
9 plants.....	1912	57	57.6	18	9	6	.....	16	8	.....	.....
	1913	57	56.9	18	9	6	.....	22	2	.....	.....
Stranders, 10-inch:											
5 plants.....	1907	43	55.1	21	.....	4	.....	8	10	.....	.....
	1908	43	55.1	21	.....	4	.....	8	10	.....	.....
	1909	43	55.0	21	.....	4	.....	18	.....	.....	.....
	1910	43	55.0	21	.....	4	.....	18	.....	.....	.....
7 plants.....	1910	57	57.7	21	4	.....	.....	26	6	.....	.....
	1911	57	56.7	21	8	.....	.....	22	6	.....	.....
	1912	57	56.7	21	8	.....	.....	22	6	.....	.....
7 plants.....	1912	55	55.2	21	4	12	.....	18	.....	.....	.....
	1913	55	55.1	21	4	12	.....	18	.....	.....	.....
Stranders, 12-inch:											
3 plants.....	1907	13	69.0	.....	.....	.....	.....	5	8	.....	.....
	1908	14	70.4	.....	.....	.....	.....	4	10	.....	.....
	1909	14	70.4	.....	.....	.....	.....	4	10	.....	.....
	1910	16	69.1	.....	.....	.....	.....	6	10	.....	.....
9 plants.....	1910	48	64.4	3	10	.....	2	13	20	.....	.....
	1911	40	65.3	3	7	1	.....	9	20	.....	.....
	1912	43	64.7	3	6	6	.....	8	20	.....	.....
	1913	49	62.4	.....	15	6	.....	18	10	.....	.....
Stranders, 13-inch, 14-inch, and 15-inch:											
1 plant.....	1907	20	60.0	.....	.....	.....	20	.....	.....	.....	.....
	1908	20	60.0	.....	.....	.....	.....	.....	.....	.....	.....
	1909	20	60.0	.....	.....	.....	.....	.....	.....	.....	.....
	1910	26	60.0	.....	.....	.....	26	.....	.....	.....	.....
	1911	20	60.0	.....	.....	.....	20	.....	.....	.....	.....
	1912	22	60.0	.....	.....	.....	22	.....	.....	.....	.....
	1913	11	60.0	.....	.....	.....	11	.....	.....	.....	.....
Stranders, 16-inch:											
1 plant.....	1907	2	65.0	.....	.....	.....	.....	2	.....	.....	.....
	1908	2	65.0	.....	.....	.....	.....	2	.....	.....	.....
	1909	2	65.0	.....	.....	.....	.....	2	.....	.....	.....
	1910	2	65.0	.....	.....	.....	.....	2	.....	.....	.....
	1911	2	65.0	.....	.....	.....	.....	2	.....	.....	.....
2 plants.....	1911	10	57.0	.....	8	.....	.....	2	.....	.....	.....
	1912	10	57.0	.....	8	.....	.....	2	.....	.....	.....
1 plant.....	1912	8	55.0	.....	8	.....	.....	.....	.....	.....	.....
	1913	8	55.0	.....	8	.....	.....	.....	.....	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Stranders, all sizes:											
13 plants.....	1907	175	59.5	39	6	24	20	60	26		
	1908	174	59.7	39	6	24	20	55	30		
	1909	174	59.7	39	6	24	20	73	12		
	1910	180	59.7	39	6	22	26	75	12		
21 plants.....	1910	272	60.6	48	25	19	38	108	34		
	1911	254	59.9	48	36	26	20	90	34		
22 plants.....	1911	262	59.8	48	44	26	20	90	34		
	1912	266	59.6	48	48	27	22	87	34		
20 plants.....	1912	252	59.2	48	35	51	22	68	28		
	1913	246	58.7	39	52	48	11	84	12		
Finishers, 8-inch:											
6 plants.....	1907	14	64.5	.....	1	3	2	5	3		
	1908	14	64.8	.....	2	2	1	6	3		
	1909	14	64.7	.....	2	2	1	9			
	1910	13	65.1	.....	2	1	.....	10			
9 plants.....	1910	24	60.6	6	2	2	.....	14			
	1911	25	59.6	6	3	5	1	10			
	1912	25	59.6	6	4	3	1	11			
10 plants.....	1912	31	59.3	6	2	13	1	9			
	1913	31	59.4	.....	10	11	1	9			
Finishers, 9-inch:											
5 plants.....	1907	15	66.8	.....	.....	.....	2	11	2		
	1908	14	67.9	.....	.....	.....	1	11	2		
	1909	14	67.8	.....	.....	.....	1	12	1		
	1910	14	67.8	.....	.....	.....	.....	13	1		
9 plants.....	1910	24	64.3	3	1	.....	2	15	3		
	1911	23	63.8	3	3	.....	1	13	3		
	1912	24	63.4	3	4	.....	1	13	3		
	1913	24	63.2	.....	6	2	1	14	1		
Finishers, 10-inch:											
4 plants.....	1907	10	68.0	.....	.....	2	.....	2	6		
	1908	10	68.0	.....	.....	2	.....	2	6		
	1909	10	67.7	.....	.....	2	.....	7	1		
	1910	10	67.7	.....	.....	2	.....	8			
5 plants.....	1910	12	69.3	.....	.....	.....	.....	10	2		
	1911	12	68.4	.....	1	.....	.....	8	3		
	1912	12	68.4	.....	1	.....	.....	8	3		
5 plants.....	1912	12	66.3	.....	.....	4	.....	7	1		
	1913	12	66.0	.....	.....	4	.....	7	1		
Finishers, 12-inch:											
4 plants.....	1907	12	69.3	.....	.....	.....	1	5	6		
	1908	11	70.5	.....	.....	.....	.....	5	6		
	1909	11	70.4	.....	.....	.....	.....	7	4		
	1910	12	69.5	.....	.....	.....	1	9	2		
8 plants.....	1910	20	65.8	3	.....	.....	1	12	4		
	1911	19	65.2	3	1	1	.....	8	6		
10 plants.....	1911	22	63.7	3	4	1	.....	8	6		
	1912	24	63.0	3	5	2	1	7	6		
	1913	24	62.8	.....	8	2	1	9	4		
Finishers, 13-inch, 14-inch, and 15-inch:											
1 plant.....	1907	4	60.0	.....	.....	.....	4	.....	.....		
	1908	4	60.0	.....	.....	.....	4	.....	.....		
	1909	4	60.0	.....	.....	.....	4	.....	.....		
	1910	4	60.0	.....	.....	.....	4	.....	.....		
4 plants.....	1910	15	64.0	3	.....	.....	4	.....	8		
	1911	15	64.0	3	.....	.....	4	.....	8		
	1912	15	64.0	3	.....	.....	4	.....	8		
	1913	13	63.4	.....	3	.....	2	4	4		

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Finishers, 16-inch:											
2 plants.....	1907	8	62.8			2		6			
	1908	8	62.8			2		6			
	1909	8	62.8			2		6			
	1910	9	62.2			3		6			
3 plants.....	1910	11	62.5			3	1	7			
	1911	11	63.5			2		9			
4 plants.....	1911	19	61.1		4	2		13			
	1912	20	61.1		4	2		14			
	1913	18	61.1		4	2		12			
Finishers, 18-inch:											
1 plant.....	1907	2	62.8					2			
	1908	2	62.8				1	1			
	1909	2	62.8					2			
	1910	2	62.8					2			
3 plants.....	1910	5	61.9				2	3			
	1911	5	60.7			1	2	2			
	1912	6	58.9		2		2	2			
5 plants.....	1912	11	58.6		3	4	2	2			
	1913	12	58.7		3	4	3	2			
Finishers, all sizes:											
10 plants.....	1907	65	65.9		1	7	9	31	17		
	1908	63	66.4		2	6	7	31	17		
	1909	63	66.2		2	6	6	43	6		
	1910	64	66.1		2	6	5	48	3		
17 plants.....	1910	111	64.0	15	3	5	10	61	17		
	1911	110	63.4	15	8	9	8	50	20		
19 plants.....	1911	121	62.8	15	15	9	8	54	20		
	1912	126	62.5	15	20	7	9	55	20		
21 plants.....	1912	137	62.0	15	18	25	9	52	18		
	1913	134	61.8		34	25	8	57	10		
Hook ups, 12-inch:											
6 plants.....	1907	49	64.8	9				16	24		
	1908	37	69.1	3				6	28		
	1909	37	68.9	3				14	20		
	1910	37	68.9					19	18		
13 plants.....	1910	69	62.8	18	4		2	23	22		
	1911	53	63.4	12	4	2		19	16		
	1912	56	62.5	12	7	2		20	15		
	1913	58	61.5	3	20	2		22	11		
Hook ups, 13-inch, 14-inch, and 15-inch:											
1 plant.....	1907	8	60.0				8				
	1908	14	60.0				14				
	1909	8	60.0				8				
	1910	12	60.0				12				
5 plants.....	1910	50	64.2	9			12	8	21		
	1911	45	64.2	9			9	7	20		
	1912	51	63.8	9			14	8	20		
	1913	43	63.8		9		7	15	12		
Hook ups, 16-inch:											
5 plants.....	1907	26	63.9			2		24			
	1908	23	64.4			2		21			
	1909	27	64.7			2		25			
	1910	35	64.1			2		33			
	1911	25	64.4			2		23			
6 plants.....	1911	35	62.4		6	2		27			
	1912	36	61.5		8	2		26			
5 plants.....	1912	32	61.1		8	2		22			
	1913	34	61.5		8	2		24			

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Hook ups, 18-inch:											
2 plants.....	1907	9	62.2	.....	.....	1	.....	8	.....	.....	.....
	1908	10	61.0	.....	2	.....	.....	8	.....	.....	.....
	1909	10	61.0	.....	2	.....	.....	8	.....	.....	.....
	1910	9	60.8	.....	2	.....	.....	7	.....	.....	.....
5 plants.....	1910	20	60.4	.....	4	.....	6	10	.....	.....	.....
	1911	21	60.5	.....	4	3	.....	14	.....	.....	.....
	1912	24	59.2	.....	10	.....	.....	14	.....	.....	.....
7 plants.....	1912	38	59.0	.....	12	12	.....	14	.....	.....	.....
	1913	40	58.8	.....	14	12	.....	14	.....	.....	.....
Hook ups, all sizes:											
12 plants.....	1907	92	63.9	9	.....	3	8	48	24	.....	.....
	1908	84	65.3	3	2	2	14	35	28	.....	.....
	1909	82	65.7	3	2	2	8	47	20	.....	.....
	1910	93	65.6	.....	2	2	12	59	18	.....	.....
20 plants.....	1910	174	63.2	27	8	2	20	74	43	.....	.....
	1911	144	63.4	21	8	7	9	63	36	.....	.....
21 plants.....	1911	154	63.0	21	14	7	9	67	36	.....	.....
	1912	167	62.2	21	25	4	14	68	35	.....	.....
22 plants.....	1912	177	61.9	21	27	16	14	64	35	.....	.....
	1913	175	61.4	3	51	16	7	75	23	.....	.....
Roll hands, other, 8-inch:											
5 plants.....	1907	20	65.1	.....	2	2	1	11	4	.....	.....
	1908	20	65.3	.....	2	2	1	11	4	.....	.....
	1909	20	65.1	.....	2	2	1	15	.....	.....	.....
	1910	20	65.1	.....	1	4	1	14	.....	.....	.....
9 plants.....	1910	33	60.6	6	3	7	1	16	.....	.....	.....
	1911	33	60.0	6	3	9	1	14	.....	.....	.....
	1912	33	60.0	6	4	7	1	15	.....	.....	.....
	1913	36	59.6	.....	16	4	1	15	.....	.....	.....
Roll hands, other, 9-inch:											
3 plants.....	1907	18	59.7	6	.....	.....	.....	12	.....	.....	.....
	1908	18	60.4	6	.....	.....	.....	12	.....	.....	.....
	1909	18	60.3	6	.....	.....	.....	12	.....	.....	.....
	1910	18	60.3	6	.....	.....	.....	12	.....	.....	.....
6 plants.....	1910	35	56.5	18	.....	.....	2	15	.....	.....	.....
	1911	35	56.1	18	2	.....	.....	15	.....	.....	.....
	1912	36	56.3	18	2	.....	.....	16	.....	.....	.....
	1913	36	57.2	6	13	2	.....	15	.....	.....	.....
Roll hands, other, 10-inch:											
4 plants.....	1907	29	70.4	.....	.....	.....	2	5	22	.....	.....
	1908	29	70.4	.....	.....	.....	2	5	22	.....	.....
	1909	29	70.0	.....	.....	.....	2	27	.....	.....	.....
	1910	29	70.0	.....	.....	.....	1	28	.....	.....	.....
7 plants.....	1910	39	67.8	.....	4	.....	1	32	2	.....	.....
	1911	39	66.8	.....	6	.....	2	29	2	.....	.....
	1912	39	66.8	.....	6	.....	2	29	2	.....	.....
6 plants.....	1912	33	66.0	.....	5	2	2	24	.....	.....	.....
	1913	33	66.0	.....	5	2	2	24	.....	.....	.....
Roll hands, other, 12-inch:											
4 plants.....	1907	24	70.1	.....	.....	.....	.....	6	18	.....	.....
	1908	21	70.4	.....	.....	.....	.....	5	16	.....	.....
	1909	21	70.3	.....	.....	.....	.....	7	14	.....	.....
	1910	22	69.9	.....	.....	.....	.....	8	14	.....	.....
9 plants.....	1910	33	67.0	3	2	.....	.....	11	17	.....	.....
	1911	32	67.7	3	1	.....	.....	10	18	.....	.....
	1912	33	67.5	3	1	.....	.....	11	18	.....	.....
7 plants.....	1912	28	67.5	3	.....	.....	.....	9	16	.....	.....
	1913	28	67.4	.....	3	.....	.....	11	14	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Roll hands, other, 13-inch, 14-inch, and 15-inch: 3 plants.....	1910	29	62.1	12	.....	.....	.....	.....	17	.....	.....
	1911	28	61.7	12	.....	.....	.....	.....	16	.....	.....
	1912	25	63.4	9	.....	.....	.....	.....	16	.....	.....
	1913	19	60.0	.....	9	.....	.....	6	4	.....	.....
Roll hands, other, 16-inch: 2 plants.....	1907	4	64.5	.....	.....	.....	1	3	.....	.....	.....
	1908	4	64.5	.....	.....	.....	1	3	.....	.....	.....
	1909	4	64.5	.....	.....	.....	1	3	.....	.....	.....
	1910	4	64.5	.....	.....	.....	1	3	.....	.....	.....
	1911	4	64.5	.....	.....	.....	1	3	.....	.....	.....
	1912	3	64.5	.....	.....	.....	1	2	.....	.....	.....
1 plant.....	1912	6	64.5	.....	.....	.....	1	5	.....	.....	.....
	1913	6	64.5	.....	.....	.....	1	5	.....	.....	.....
Roll hands, other, 18-inch: 1 plant.....	1907	2	62.8	.....	.....	.....	.....	2	.....	.....	.....
	1908	2	62.8	.....	.....	.....	.....	2	.....	.....	.....
	1909	2	62.8	.....	.....	.....	.....	2	.....	.....	.....
	1910	2	62.8	.....	.....	.....	.....	2	.....	.....	.....
4 plants.....	1910	7	59.9	.....	2	.....	2	3	.....	.....	.....
	1911	6	60.8	.....	1	.....	.....	4	.....	.....	.....
	1912	7	59.2	.....	3	.....	.....	4	.....	.....	.....
5 plants.....	1912	9	59.3	.....	3	2	.....	4	.....	.....	.....
	1913	10	58.9	.....	4	2	.....	4	.....	.....	.....
Roll hands, other, all sizes: 9 plants.....	1907	97	66.8	6	2	2	4	39	44	.....	.....
	1908	94	67.0	6	2	2	4	38	42	.....	.....
	1909	94	66.8	6	2	2	4	66	14	.....	.....
	1910	95	66.7	6	1	4	3	67	14	.....	.....
18 plants.....	1910	180	62.8	39	11	7	7	80	36	.....	.....
	1911	177	62.5	39	13	10	4	75	36	.....	.....
	1912	176	62.7	36	16	7	4	77	36	.....	.....
18 plants.....	1912	170	62.2	36	14	11	4	73	32	.....	.....
	1913	168	61.8	6	50	10	4	80	18	.....	.....
Hotbed men: 15 plants.....	1907	302	63.3	12	8	54	42	130	56	.....	.....
	1908	299	63.2	12	12	52	57	104	62	.....	.....
	1909	286	63.3	12	12	52	42	154	14	.....	.....
	1910	302	63.3	15	12	45	47	163	20	.....	.....
25 plants.....	1910	500	62.9	57	32	48	71	216	59	17	.....
	1911	434	62.0	54	39	63	29	207	42	.....	.....
26 plants.....	1911	450	61.9	54	45	63	29	217	42	.....	.....
	1912	461	61.7	54	61	60	25	209	52	.....	.....
26 plants.....	1912	455	61.5	54	54	82	25	194	46	.....	.....
	1913	467	60.9	12	110	75	13	233	24	.....	.....
Shearmen: 15 plants.....	1907	94	64.8	.....	6	8	15	48	17	.....	.....
	1908	92	65.1	.....	6	8	17	42	19	.....	.....
	1909	93	65.3	.....	6	8	17	55	3	4	.....
	1910	97	65.0	.....	6	7	18	60	6	.....	.....
25 plants.....	1910	156	63.3	15	18	7	22	72	16	6	.....
	1911	151	62.5	15	16	18	18	68	16	.....	.....
	1912	154	62.4	15	18	19	19	63	18	2	.....
24 plants.....	1912	156	62.4	15	19	19	16	67	18	2	.....
	1913	159	62.0	.....	40	17	13	83	4	2	.....
Shearmen's helpers: 15 plants.....	1907	201	65.9	.....	8	4	21	125	41	2	.....
	1908	172	66.2	.....	8	4	22	101	29	8	.....
	1909	185	67.3	.....	8	4	26	110	8	29	.....
	1910	215	65.3	.....	8	3	39	140	25	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Shearmen's helpers—Concluded.											
23 plants.....	1910	355	64.7	45	8	3	43	158	77	21	.....
	1911	359	63.8	48	8	20	37	181	65	.....	.....
	1912	358	63.9	48	12	20	35	166	65	12	.....
22 plants.....	1912	337	63.4	51	14	20	34	158	48	12	.....
	1913	316	62.8	.....	69	17	22	194	4	10	.....
Bundlers:											
5 plants.....	1907	41	66.9	.....	.....	.....	.....	31	10	.....	.....
	1908	41	66.9	.....	.....	.....	.....	31	10	.....	.....
	1909	41	66.8	.....	.....	.....	.....	41	10	.....	.....
	1910	41	67.1	.....	.....	.....	.....	41	.....	.....	.....
6 plants.....	1910	77	66.1	.....	.....	.....	.....	77	.....	.....	.....
	1911	81	63.5	.....	.....	36	.....	45	.....	.....	.....
7 plants.....	1911	131	62.0	.....	.....	86	.....	45	.....	.....	.....
	1912	132	62.0	.....	.....	86	.....	46	.....	.....	.....
7 plants.....	1912	129	61.6	.....	.....	90	1	38	.....	.....	.....
	1913	136	61.4	.....	.....	97	1	38	.....	.....	.....
Laborers:											
10 plants.....	1907	296	68.3	.....	.....	1	51	140	74	24	6
	1908	227	64.8	.....	.....	2	94	108	18	.....	5
	1909	324	67.8	.....	.....	2	76	137	88	13	8
	1910	424	67.2	.....	.....	9	119	113	176	.....	7
15 plants.....	1910	511	67.8	.....	.....	9	149	128	183	24	118
	1911	355	66.0	.....	31	3	70	175	70	4	2
17 plants.....	1911	390	65.5	.....	31	3	104	175	71	4	2
	1912	424	65.9	.....	18	41	69	204	84	5	3
21 plants.....	1912	536	65.0	.....	35	87	79	229	98	5	3
	1913	705	64.3	.....	43	115	164	310	25	44	4

PER CENT.

Stockers:											
8 plants.....	1907	93	64.4	.....	8.6	.....	8.6	69.9	8.6	4.3	.....
	1908	90	64.1	.....	11.1	.....	8.9	65.6	14.4	.....	.....
	1909	88	64.2	.....	9.1	.....	9.1	78.4	3.4	.....	.....
	1910	87	64.3	.....	9.2	.....	8.0	79.3	3.4	.....	.....
13 plants.....	1910	170	59.0	15.9	24.7	.....	4.1	50.6	4.7	.....	.....
	1911	164	59.6	16.5	17.1	7.9	12.2	42.7	3.7	.....	.....
15 plants.....	1911	211	60.9	12.8	13.3	6.2	20.9	34.1	12.8	.....	.....
	1912	217	60.9	12.4	14.7	1.8	27.2	30.9	12.9	.....	.....
17 plants.....	1912	215	60.9	12.6	15.8	3.7	20.9	34.0	13.0	.....	.....
	1913	226	60.6	.....	30.5	1.8	19.5	45.1	3.1	.....	.....
Heaters:											
15 plants.....	1907	121	63.9	2.5	5.0	8.3	2.5	70.2	9.9	.....	1.7
	1908	112	63.9	2.7	12.5	5.4	1.8	60.7	15.2	.....	1.8
	1909	112	64.0	2.7	12.5	5.4	1.8	69.6	4.5	1.8	1.8
	1910	142	64.2	2.1	11.3	2.8	.....	72.5	7.0	2.8	1.4
25 plants.....	1910	217	62.9	8.3	11.5	1.8	7.4	58.1	10.1	1.8	.9
	1911	180	62.6	10.0	14.4	3.3	1.1	59.4	9.4	1.1	1.1
26 plants.....	1911	184	62.7	9.8	14.1	3.3	1.1	60.3	9.2	1.1	1.1
	1912	199	62.4	9.0	6.0	15.6	1.0	57.3	9.0	1.0	1.0
26 plants.....	1912	196	61.8	9.2	14.3	15.3	1.0	50.0	8.2	1.0	1.0
	1913	211	61.7	1.4	21.3	16.1	1.4	53.1	4.3	1.4	.9

¹ Including 4 employees whose full-time hours per week were 84½ and 2 employees whose full-time hours per week were 91.

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Heaters' helpers: 14 plants.....	1907	167	65.3	1.0	4.8	7.2	2.4	64.7	15.6	3.6	.....
	1908	153	65.1	2.0	10.5	5.2	2.6	56.2	20.9	2.6	.....
	1909	151	65.0	2.0	10.6	5.3	2.6	74.2	1.3	4.0	.....
	1910	166	65.2	1.8	9.6	4.8	2.4	74.7	1.8	2.4	2.4
24 plants.....	1910	295	62.6	16.3	7.8	2.7	7.8	52.2	10.5	1.4	1.4
	1911	281	62.5	17.1	9.3	4.3	2.5	53.4	10.7	2.8	.....
25 plants.....	1911	293	62.7	16.4	8.9	4.1	2.4	55.3	10.2	2.7	.....
	1912	319	62.2	14.1	9.1	13.8	1.9	50.5	9.4	1.3	.....
24 plants.....	1912	318	61.9	14.2	6.6	22.6	1.9	47.2	6.3	1.3	.....
	1913	324	62.0	.9	19.4	23.5	1.5	50.3	3.1	.6	.6
Chargers and helpers: 12 plants.....	1907	104	65.5	.....	5.8	3.8	4.8	68.3	15.4	1.9	.....
	1908	102	65.6	.....	5.9	3.9	4.9	65.7	19.6	.....	.....
	1909	107	65.9	.....	5.6	3.7	3.7	74.8	7.5	4.7	.....
	1910	110	66.3	.....	5.5	3.6	3.6	78.2	9.1	.....	.....
18 plants.....	1910	179	65.3	6.7	5.6	2.2	6.7	59.2	19.6	.....	.....
	1911	177	65.1	6.8	6.2	5.6	2.8	59.9	18.6	.....	.....
19 plants.....	1911	185	64.8	6.5	8.1	5.4	2.7	59.5	17.8	.....	.....
	1912	182	65.0	4.9	9.3	3.3	3.3	61.0	18.1	.....	.....
19 plants.....	1912	181	64.3	6.6	7.2	14.4	3.3	48.6	19.9	.....	.....
	1913	185	63.7	.....	14.1	14.1	3.8	59.5	8.6	.....	.....
Drag downs: 11 plants.....	1907	86	64.4	.....	9.3	9.3	.....	60.5	18.6	2.3	.....
	1908	82	63.9	.....	19.5	4.9	.....	52.4	23.2	.....	.....
	1909	83	64.0	.....	19.3	4.8	.....	69.9	3.6	2.4	.....
	1910	89	64.0	.....	18.0	4.5	.....	69.7	3.4	4.5	.....
19 plants.....	1910	132	65.1	.....	15.2	3.0	3.0	56.8	18.9	3.0	.....
	1911	123	64.9	.....	18.7	4.1	.....	55.3	20.3	1.6	.....
20 plants.....	1911	127	64.7	.....	19.7	3.9	.....	55.1	19.7	1.6	.....
	1912	130	64.3	.....	20.8	4.6	.....	53.8	19.2	1.5	.....
20 plants.....	1912	121	63.8	.....	19.8	16.5	.....	44.6	17.4	1.7	.....
	1913	124	63.1	.....	19.4	15.3	1.6	54.8	7.3	1.6	.....
Roll engineers: 13 plants.....	1907	58	72.3	.....	.....	.....	.....	53.4	8.6	31.0	6.9
	1908	56	71.4	.....	.....	.....	.....	50.0	17.9	28.6	3.6
	1909	56	71.5	.....	.....	.....	.....	53.6	10.7	32.1	3.6
	1910	58	71.7	.....	.....	.....	.....	55.2	6.9	32.8	5.2
22 plants.....	1910	99	72.0	.....	.....	.....	3.0	40.4	26.3	23.2	7.1
	1911	95	70.4	.....	.....	.....	3.2	56.8	13.7	24.2	2.1
	1912	97	70.0	.....	4.1	.....	1.0	52.6	12.4	27.8	2.1
20 plants.....	1912	93	70.1	.....	4.3	.....	1.1	52.7	12.9	26.9	2.2
	1913	97	70.5	.....	6.2	.....	2.1	40.2	9.3	40.2	2.1
Rollers, 8-inch: 7 plants.....	1907	16	62.5	.....	18.8	18.8	12.5	37.5	6.3	6.3	.....
	1908	16	62.6	.....	18.8	18.8	12.5	37.5	6.3	6.3	.....
	1909	16	62.5	.....	18.8	18.8	12.5	43.8	6.3	.....	.....
	1910	15	62.7	.....	26.7	6.7	13.3	53.3	.....	.....	.....
11 plants.....	1910	28	59.0	21.4	21.4	7.1	7.1	42.9	.....	.....	.....
	1911	29	58.0	20.7	24.1	13.8	6.9	31.0	3.4	.....	.....
	1912	29	58.0	20.7	24.1	13.8	6.9	31.0	3.4	.....	.....
	1913	29	58.1	6.9	44.8	6.9	6.9	31.0	3.4	.....	.....
Rollers, 9-inch: 6 plants.....	1907	12	66.7	.....	.....	.....	25.0	58.3	16.7	.....	.....
	1908	11	67.7	.....	.....	.....	18.2	63.6	18.2	.....	.....
	1909	11	67.1	.....	.....	.....	18.2	72.7	9.1	.....	.....
	1910	12	67.0	.....	.....	.....	8.3	83.3	8.3	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Rollers, 9-inch—Concluded.											
11 plants.....	1910	24	63.2	12.5	4.2	.....	20.8	50.0	12.5	.....	.....
	1911	22	63.5	13.6	4.5	.....	18.2	50.0	13.6	.....	.....
	1912	23	63.1	13.0	4.3	.....	21.7	47.8	13.0	.....	.....
10 plants.....	1912	22	63.0	13.6	4.5	.....	22.7	45.5	13.6	.....	.....
	1913	22	62.8	.....	18.2	.....	27.3	45.5	9.1	.....	.....
Rollers, 10-inch:											
5 plants.....	1907	12	67.3	.....	.....	16.7	16.7	33.3	16.7	16.7	.....
	1908	12	67.3	.....	.....	16.7	16.7	33.3	16.7	16.7	.....
	1909	12	67.0	.....	.....	16.7	16.7	41.7	25.0	.....	.....
	1910	12	67.0	.....	.....	16.7	16.7	58.3	8.3	.....	.....
7 plants.....	1910	18	65.0	.....	22.2	.....	11.1	50.0	16.7	.....	.....
	1911	18	63.6	.....	27.8	.....	11.1	33.3	27.8	.....	.....
	1912	18	63.6	.....	27.8	.....	11.1	33.3	27.8	.....	.....
7 plants.....	1912	18	62.1	.....	27.8	11.1	11.1	33.3	16.7	.....	.....
	1913	18	61.9	.....	27.8	11.1	11.1	33.3	16.7	.....	.....
Rollers, 12-inch:											
7 plants.....	1907	15	68.1	.....	.....	.....	13.3	40.0	46.7	.....	.....
	1908	13	69.9	.....	.....	.....	.....	46.2	53.8	.....	.....
	1909	13	69.8	.....	.....	.....	.....	61.5	38.5	.....	.....
	1910	15	68.5	.....	.....	.....	6.7	60.0	33.3	.....	.....
13 plants.....	1910	27	64.4	11.1	7.4	.....	11.1	44.4	25.9	.....	.....
	1911	24	64.9	12.5	4.2	4.2	.....	50.0	29.2	.....	.....
	1912	26	64.3	11.5	7.7	3.8	3.8	46.2	26.9	.....	.....
12 plants.....	1912	27	64.7	11.1	7.4	3.7	3.7	40.7	33.3	.....	.....
	1913	28	64.4	3.6	14.3	3.6	10.7	39.3	28.6	.....	.....
Rollers, 13-inch, 14-inch, and 15-inch:											
3 plants.....	1910	7	60.6	42.9	.....	.....	.....	28.6	28.6	.....	.....
	1911	7	60.6	42.9	.....	.....	.....	28.6	28.6	.....	.....
	1912	7	60.6	42.9	.....	.....	.....	28.6	28.6	.....	.....
4 plants.....	1912	9	63.1	33.3	.....	.....	.....	22.2	44.4	.....	.....
	1913	9	62.7	.....	33.3	.....	11.1	22.2	33.3	.....	.....
Rollers, 16-inch:											
4 plants.....	1907	7	63.3	.....	.....	28.6	14.3	57.1	.....	.....	.....
	1908	7	63.3	.....	.....	28.6	14.3	57.1	.....	.....	.....
	1909	7	63.3	.....	.....	28.6	14.3	57.1	.....	.....	.....
	1910	9	62.3	.....	.....	33.3	11.1	55.6	.....	.....	.....
5 plants.....	1910	11	62.6	.....	.....	27.3	18.2	54.5	.....	.....	.....
	1911	8	63.9	.....	.....	25.0	12.5	62.5	.....	.....	.....
6 plants.....	1911	12	62.8	.....	16.7	16.7	8.3	58.3	.....	.....	.....
	1912	12	62.4	.....	16.7	16.7	16.7	50.0	.....	.....	.....
5 plants.....	1912	11	61.7	.....	18.2	18.2	9.1	54.5	.....	.....	.....
	1913	11	61.5	.....	18.2	18.2	9.1	54.5	.....	.....	.....
Rollers, 18-inch:											
2 plants.....	1907	3	61.0	.....	.....	33.3	33.3	33.3	.....	.....	.....
	1908	4	58.3	.....	50.0	.....	25.0	25.0	.....	.....	.....
	1909	4	58.3	.....	50.0	.....	25.0	25.0	.....	.....	.....
	1910	4	58.3	.....	50.0	.....	.....	50.0	.....	.....	.....
5 plants.....	1910	9	60.8	.....	22.2	.....	22.2	55.6	.....	.....	.....
	1911	8	60.3	.....	25.0	12.5	12.5	50.0	.....	.....	.....
	1912	9	59.1	.....	44.4	.....	11.1	44.4	.....	.....	.....
7 plants.....	1912	12	58.7	.....	41.7	16.7	8.3	33.3	.....	.....	.....
	1913	13	58.8	.....	30.8	23.1	15.4	30.8	.....	.....	.....
Rollers, all sizes:											
13 plants.....	1907	65	65.5	.....	4.6	12.3	16.9	43.1	18.5	4.6	.....
	1908	63	65.7	.....	7.9	11.1	12.7	44.4	19.0	4.8	.....
	1909	63	65.5	.....	7.9	11.1	12.7	52.4	15.9	.....	.....
	1910	67	65.2	.....	9.0	9.0	10.4	61.2	10.4	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Rollers, all sizes—Concluded.											
22 plants.....	1910	124	62.4	12.1	12.1	4.0	12.9	46.8	12.1		
	1911	116	62.0	12.9	13.8	6.9	8.6	42.2	15.5		
23 plants.....	1911	120	62.0	12.5	15.0	6.7	8.3	42.5	15.0		
	1912	124	61.7	12.1	16.9	5.6	10.5	40.3	14.5		
24 plants.....	1912	128	61.6	11.7	17.2	8.6	9.4	37.5	15.6		
	1913	130	61.5	2.3	26.9	7.7	13.1	30.9	13.1		
Roughers, 8-inch:											
7 plants.....	1907	44	61.2		34.1	18.2		34.1	13.6		
	1908	44	61.2		34.1	18.2		34.1	13.6		
	1909	44	61.0		34.1	18.2		47.7			
	1910	41	61.2		36.6	12.2		51.2			
11 plants.....	1910	84	57.5	28.6	22.6	9.5		39.3			
	1911	81	56.0	29.6	30.9	13.6		25.9			
	1912	79	56.0	30.4	29.1	13.9		26.6			
	1913	79	56.4		59.5	21.5		19.0			
Roughers, 9-inch:											
7 plants.....	1907	58	56.3	37.9	13.8			48.3			
	1908	54	60.4	22.2	14.8			55.6	7.4		
	1909	54	56.5	38.9	14.8			38.9	7.4		
	1910	58	56.9	37.9	13.8			41.4	6.9		
12 plants.....	1910	88	58.2	31.8	11.4		11.4	34.1	11.4		
	1911	83	57.4	32.5	20.5			36.1	10.8		
	1912	84	57.2	32.1	23.8			33.3	10.7		
11 plants.....	1912	82	57.0	32.9	20.7	7.3		28.0	11.0		
	1913	83	56.6	26.5	27.7	7.2		34.9	3.6		
Roughers, 10-inch:											
5 plants.....	1907	33	64.4	9.1		24.2		24.2	42.4		
	1908	37	65.2	8.1		21.6		21.6	48.6		
	1909	37	65.0	8.1		21.6		70.3			
	1910	38	64.8	7.9		23.7		68.4			
7 plants.....	1910	51	64.8	5.9	15.7			66.7	11.8		
	1911	51	63.3	5.9	23.5			58.8	11.8		
	1912	51	63.3	5.9	23.5			58.8	11.8		
7 plants.....	1912	53	61.7	5.7	15.1	30.2		49.1			
	1913	53	61.5	5.7	15.1	30.2		49.1			
Roughers, 12-inch:											
8 plants.....	1907	62	64.5	14.5		4.8		41.9	38.7		
	1908	55	64.1	16.4	10.9			25.5	47.3		
	1909	54	67.7		11.1			70.4	18.5		
	1910	58	67.5		10.3			69.0	20.7		
14 plants.....	1910	89	64.6	6.7	18.0		4.5	50.6	20.2		
	1911	81	65.3	7.4	12.3	3.7		55.6	21.0		
	1912	85	64.4	7.1	18.8			55.3	18.8		
13 plants.....	1912	81	64.4	7.4	18.5	2.5		51.9	19.8		
	1913	84	63.8		28.6	2.4		57.1	11.9		
Roughers, 13-inch, 14-inch, and 15-inch:											
1 plant.....	1907	12	60.0				100.0				
	1908	12	60.0				100.0				
	1909	12	60.0				100.0				
	1910	12	60.0				100.0				
5 plants.....	1910	48	61.5	25.0			25.0	37.5	12.5		
	1911	46	61.2	26.1			26.1	34.8	13.0		
	1912	47	61.4	25.5			25.5	36.2	12.8		
	1913	41	61.8		29.3		14.6	51.2	4.9		

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84
Roughers, 16-inch:										
5 plants.....	1907	36	63.0	.....	.....	22.2	.....	77.8	.....	.....
	1908	32	63.1	.....	.....	25.0	.....	75.0	.....	.....
	1909	34	63.4	.....	.....	23.5	.....	76.5	.....	.....
	1910	42	62.2	.....	.....	33.3	.....	66.7	.....	.....
	1911	34	63.4	.....	.....	23.5	.....	76.5	.....	.....
6 plants.....	1911	42	62.3	.....	9.5	19.0	.....	71.4	.....	.....
	1912	40	61.8	.....	10.0	20.0	.....	70.0	.....	.....
5 plants.....	1912	32	61.0	.....	12.5	25.0	.....	62.5	.....	.....
	1913	34	61.4	.....	11.8	23.5	.....	64.7	.....	.....
Roughers, 18-inch:										
2 plants.....	1907	7	62.0	.....	.....	14.3	.....	85.7	.....	.....
	1908	8	60.5	.....	25.0	.....	.....	75.0	.....	.....
	1909	8	60.5	.....	25.0	.....	.....	75.0	.....	.....
	1910	8	60.5	.....	25.0	.....	.....	75.0	.....	.....
5 plants.....	1910	23	59.4	.....	34.8	.....	26.1	39.1	.....	.....
	1911	19	60.3	.....	21.1	15.8	.....	63.2	.....	.....
	1912	22	58.9	.....	45.5	.....	.....	54.5	.....	.....
7 plants.....	1912	31	58.9	.....	35.5	25.8	.....	38.7	.....	.....
	1913	33	58.6	.....	39.4	24.2	.....	36.4	.....	.....
Roughers, all sizes:										
15 plants.....	1907	252	61.5	13.5	9.1	11.1	4.8	44.0	17.5	.....
	1908	242	62.5	9.9	12.8	9.9	5.0	40.1	22.3	.....
	1909	243	62.4	9.9	12.8	9.9	4.9	56.8	5.8	.....
	1910	257	62.3	9.7	12.1	10.9	4.7	56.4	6.2	.....
25 plants.....	1910	425	61.0	17.2	14.4	5.2	7.5	46.4	9.4	.....
	1911	395	60.6	18.2	17.2	6.3	3.0	45.6	9.6	.....
26 plants.....	1911	403	60.5	17.9	17.9	6.2	3.0	45.7	9.4	.....
	1912	408	60.2	17.6	20.8	4.7	2.9	44.9	9.1	.....
26 plants.....	1912	405	59.9	17.8	19.3	12.6	3.0	39.8	7.7	.....
	1913	407	59.8	6.1	32.2	14.0	1.5	42.5	3.7	.....
Catchers, 8-inch:										
3 plants.....	1907	18	56.6	.....	44.4	55.6	.....	.....	.....	.....
	1908	18	56.6	.....	44.4	55.6	.....	.....	.....	.....
	1909	18	56.6	.....	44.4	55.6	.....	.....	.....	.....
	1910	17	56.4	.....	47.1	52.9	.....	.....	.....	.....
6 plants.....	1910	26	54.3	23.1	38.5	38.5	.....	.....	.....	.....
	1911	27	54.1	22.2	37.0	40.7	.....	.....	.....	.....
	1912	25	54.1	24.0	32.0	44.0	.....	.....	.....	.....
	1913	25	54.3	.....	64.0	36.0	.....	.....	.....	.....
Catchers, 9-inch:										
2 plants.....	1907	12	58.0	.....	66.7	.....	.....	33.3	.....	.....
	1908	12	58.0	.....	66.7	.....	.....	33.3	.....	.....
	1909	12	58.0	.....	66.7	.....	.....	33.3	.....	.....
	1910	12	58.0	.....	66.7	.....	.....	33.3	.....	.....
4 plants.....	1910	17	56.5	17.6	47.1	.....	11.8	23.5	.....	.....
	1911	17	56.8	17.6	47.1	.....	.....	35.3	.....	.....
	1912	15	55.7	20.0	53.3	.....	.....	26.7	.....	.....
3 plants.....	1912	13	54.3	23.1	61.5	.....	.....	15.4	.....	.....
	1913	13	54.9	.....	84.6	.....	.....	15.4	.....	.....
Catchers, 10-inch:										
1 plant.....	1907	10	72.0	.....	.....	.....	.....	100.0	.....	.....
	1908	10	72.0	.....	.....	.....	.....	100.0	.....	.....
	1909	10	71.5	.....	.....	.....	.....	100.0	.....	.....
	1910	10	71.5	.....	.....	.....	.....	100.0	.....	.....
3 plants.....	1910	16	66.8	.....	25.0	.....	.....	62.5	12.5	.....
	1911	16	65.9	.....	25.0	.....	.....	62.5	12.5	.....
	1912	16	65.9	.....	25.0	.....	.....	62.5	12.5	.....
2 plants.....	1912	18	66.4	.....	22.2	.....	.....	77.8	.....	.....
	1913	18	66.4	.....	22.2	.....	.....	77.8	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—						
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84
Catchers, 12-inch:										
5 plants.....	1907	16	65.6	.....	.....	12.5	.....	62.5	25.0	.....
	1908	17	64.1	.....	23.5	.....	.....	52.9	23.5	.....
	1909	17	63.9	.....	23.5	.....	.....	76.5	.....	.....
	1910	18	63.7	.....	22.2	.....	.....	77.8	.....	.....
10 plants.....	1910	28	62.5	10.7	14.3	.....	7.1	60.7	7.1	.....
	1911	27	62.1	11.1	18.5	3.7	.....	59.3	7.4	.....
	1912	29	61.7	10.3	24.1	.....	.....	58.6	6.9	.....
9 plants.....	1912	25	61.1	12.0	24.0	8.0	.....	48.0	8.0	.....
	1913	25	61.0	.....	36.0	8.0	.....	56.0	.....	.....
Catchers, 13-inch, 14-inch, and 15-inch:										
3 plants.....	1910	7	61.7	42.9	.....	.....	.....	.....	57.1	.....
	1911	7	61.7	42.9	.....	.....	.....	.....	57.1	.....
	1912	7	61.7	42.9	.....	.....	.....	.....	57.1	.....
	1913	7	61.1	.....	42.9	.....	.....	28.6	28.6	.....
Catchers, 16-inch:										
4 plants.....	1907	10	64.5	.....	.....	.....	10.0	90.0	.....	.....
	1908	9	65.0	.....	.....	.....	.....	100.0	.....	.....
	1909	9	65.0	.....	.....	.....	.....	100.0	.....	.....
	1910	12	64.6	.....	.....	.....	.....	100.0	.....	.....
	1911	9	65.0	.....	.....	.....	.....	100.0	.....	.....
	1912	9	64.5	.....	.....	.....	.....	100.0	.....	.....
3 plants.....	1912	7	64.4	.....	.....	.....	.....	100.0	.....	.....
	1913	8	64.4	.....	.....	.....	.....	100.0	.....	.....
Catchers, 18-inch:										
2 plants.....	1907	3	61.0	.....	.....	33.3	.....	66.7	.....	.....
	1908	4	58.3	.....	50.0	.....	.....	50.0	.....	.....
	1909	4	58.3	.....	50.0	.....	.....	50.0	.....	.....
	1910	4	58.3	.....	50.0	.....	.....	50.0	.....	.....
5 plants.....	1910	9	58.6	.....	44.4	.....	22.2	33.3	.....	.....
	1911	8	59.0	.....	37.5	12.5	.....	50.0	.....	.....
	1912	9	58.0	.....	55.6	.....	.....	44.4	.....	.....
7 plants.....	1912	13	57.5	.....	53.8	15.4	.....	30.8	.....	.....
	1913	14	57.3	.....	57.1	14.3	.....	28.6	.....	.....
Catchers, all sizes:										
11 plants.....	1907	69	62.5	.....	23.2	18.8	1.4	36.2	20.3	.....
	1908	70	62.0	.....	31.4	14.3	.....	34.3	20.0	.....
	1909	70	61.9	.....	31.4	14.3	.....	54.3	.....	.....
	1910	73	62.0	.....	30.1	12.3	.....	57.5	.....	.....
20 plants.....	1910	115	60.2	13.0	26.1	8.7	5.2	40.0	7.0	.....
	1911	111	59.9	13.5	27.0	11.7	.....	40.5	7.2	.....
	1912	110	59.7	13.6	29.1	10.0	.....	40.0	7.3	.....
20 plants.....	1912	108	59.4	13.9	30.6	13.9	.....	36.1	5.6	.....
	1913	110	59.4	.....	46.4	11.8	.....	40.0	1.8	.....
Stranders, 8-inch:										
7 plants.....	1907	56	62.6	.....	10.7	35.7	.....	39.3	14.3	.....
	1908	56	62.8	.....	10.7	35.7	.....	39.3	14.3	.....
	1909	56	62.7	.....	10.7	35.7	.....	53.6	.....	.....
	1910	54	62.8	.....	11.1	33.3	.....	55.6	.....	.....
11 plants.....	1910	75	61.6	8.0	10.7	25.3	.....	56.0	.....	.....
	1911	73	60.4	8.2	16.4	34.2	.....	41.1	.....	.....
	1912	73	60.4	8.2	19.2	28.8	.....	43.8	.....	.....
11 plants.....	1912	67	60.6	9.0	11.9	40.3	.....	38.8	.....	.....
	1913	66	60.7	.....	24.2	36.4	.....	39.4	.....	.....
Stranders, 9-inch:										
6 plants.....	1907	41	56.2	43.9	.....	.....	.....	56.1	.....	.....
	1908	39	56.4	46.2	.....	.....	.....	48.7	5.1	.....
	1909	39	56.3	46.2	.....	.....	.....	48.7	5.1	.....
	1910	39	56.3	46.2	.....	.....	.....	48.7	5.1	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employ-ees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Stranders, 9-inch—Concluded.											
10 plants.....	1910	64	59.	28.1	4.7	.....	15.6	39.1	12.5	.....	.....
	1911	62	58.6	29.0	14.5	.....	.....	43.5	12.9	.....	.....
	1912	61	58.0	29.5	19.7	.....	.....	37.7	13.1	.....	.....
9 plants.....	1912	57	57.6	31.6	15.8	10.5	.....	28.1	14.0	.....	.....
	1913	57	56.9	31.6	15.8	10.5	.....	38.6	3.5	.....	.....
Stranders, 10-inch:											
5 plants.....	1907	43	55.1	48.8	.....	9.3	.....	18.6	23.3	.....	.....
	1908	43	55.1	48.8	.....	9.3	.....	18.6	23.3	.....	.....
	1909	43	55.0	48.8	.....	9.3	.....	41.9	.....	.....	.....
	1910	43	55.0	48.8	.....	9.3	.....	41.9	.....	.....	.....
7 plants.....	1910	57	57.7	36.8	7.0	.....	.....	45.6	10.5	.....	.....
	1911	57	56.7	36.8	14.0	.....	.....	38.6	10.5	.....	.....
	1912	57	56.7	36.8	14.0	.....	.....	38.6	10.5	.....	.....
7 plants.....	1912	55	55.2	38.2	7.3	21.8	.....	32.7	.....	.....	.....
	1913	55	55.1	38.2	7.3	21.8	.....	32.7	.....	.....	.....
Stranders, 12-inch:											
3 plants.....	1907	13	69.0	.....	.....	.....	.....	38.5	61.5	.....	.....
	1908	14	70.4	.....	.....	.....	.....	28.6	71.4	.....	.....
	1909	14	70.4	.....	.....	.....	.....	28.6	71.4	.....	.....
	1910	16	69.1	.....	.....	.....	.....	37.5	62.5	.....	.....
9 plants.....	1910	48	64.4	6.3	20.8	.....	4.2	27.1	41.7	.....	.....
	1911	40	65.3	7.5	17.5	2.5	.....	22.5	50.0	.....	.....
	1912	43	64.7	7.0	14.0	14.0	.....	18.6	46.5	.....	.....
	1913	49	62.4	.....	30.6	12.2	.....	36.7	20.4	.....	.....
Stranders, 13-inch, 14-inch, and 15-inch:											
1 plant.....	1907	20	60.0	.....	.....	.....	100.0	.....	.....	.....	.....
	1908	20	60.0	.....	.....	.....	100.0	.....	.....	.....	.....
	1909	20	60.0	.....	.....	.....	100.0	.....	.....	.....	.....
	1910	26	60.0	.....	.....	.....	100.0	.....	.....	.....	.....
	1911	20	60.0	.....	.....	.....	100.0	.....	.....	.....	.....
	1912	22	60.0	.....	.....	.....	100.0	.....	.....	.....	.....
	1913	11	60.0	.....	.....	.....	100.0	.....	.....	.....	.....
Stranders, 16-inch:											
1 plant.....	1907	2	65.0	.....	.....	.....	.....	100.0	.....	.....	.....
	1908	2	65.0	.....	.....	.....	.....	100.0	.....	.....	.....
	1909	2	65.0	.....	.....	.....	.....	100.0	.....	.....	.....
	1910	2	65.0	.....	.....	.....	.....	100.0	.....	.....	.....
	1911	2	65.0	.....	.....	.....	.....	100.0	.....	.....	.....
2 plants.....	1911	10	57.0	.....	80.0	.....	.....	20.0	.....	.....	.....
	1912	10	57.0	.....	80.0	.....	.....	20.0	.....	.....	.....
1 plant.....	1912	8	55.0	.....	100.0	.....	.....	.....	.....	.....	.....
	1913	8	55.0	.....	100.0	.....	.....	.....	.....	.....	.....
Stranders, all sizes:											
13 plants.....	1907	175	59.5	22.3	3.4	13.7	11.4	34.3	14.9	.....	.....
	1908	174	59.7	22.4	3.4	13.8	11.5	31.6	17.2	.....	.....
	1909	174	59.7	22.4	3.4	13.8	11.5	42.0	6.9	.....	.....
	1910	180	59.7	21.7	3.3	12.2	14.4	41.7	6.7	.....	.....
21 plants.....	1910	272	60.6	17.6	9.2	7.0	14.0	39.7	12.5	.....	.....
	1911	254	59.9	18.9	14.2	10.2	7.9	35.4	13.4	.....	.....
22 plants.....	1911	262	59.8	18.3	16.8	9.9	7.6	34.4	13.0	.....	.....
	1912	266	59.6	18.0	18.0	10.2	8.3	32.7	12.8	.....	.....
20 plants.....	1912	252	59.2	19.0	13.9	20.2	8.7	27.0	11.1	.....	.....
	1913	246	58.7	15.9	21.1	19.5	4.5	34.1	4.9	.....	.....
Finishers, 8-inch:											
6 plants.....	1907	14	64.5	.....	7.1	21.4	14.3	35.7	21.4	.....	.....
	1908	14	64.8	.....	14.3	14.3	7.1	42.9	21.4	.....	.....
	1909	14	64.7	.....	14.3	14.3	7.1	64.3	.....	.....	.....
	1910	13	65.1	.....	15.4	7.7	.....	76.9	.....	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Finishers, 8-inch—Concluded.											
9 plants.....	1910	24	60.6	25.0	8.3	8.3	.....	58.3	.....	.....	.....
	1911	25	59.6	24.0	12.0	20.0	4.0	40.0	.....	.....	.....
	1912	25	59.6	24.0	16.0	12.0	4.0	44.0	.....	.....	.....
10 plants.....	1912	31	59.3	19.4	6.5	41.9	3.2	29.0	.....	.....	.....
	1913	31	59.4	.....	32.3	35.5	3.2	29.0	.....	.....	.....
Finishers, 9-inch:											
5 plants.....	1907	15	66.8	.....	.....	.....	13.3	73.3	13.3	.....	.....
	1908	14	67.9	.....	.....	.....	7.1	78.6	14.3	.....	.....
	1909	14	67.8	.....	.....	.....	7.1	85.7	7.1	.....	.....
	1910	14	67.8	.....	.....	.....	.....	92.9	7.1	.....	.....
9 plants.....	1910	24	64.3	12.5	4.2	.....	8.3	62.5	12.5	.....	.....
	1911	23	63.8	13.0	13.0	.....	4.3	56.5	13.0	.....	.....
	1912	24	63.4	12.5	16.7	.....	4.2	54.2	12.5	.....	.....
	1913	24	63.2	.....	25.0	8.3	4.2	58.3	4.2	.....	.....
Finishers, 10-inch:											
4 plants.....	1907	10	68.0	.....	.....	20.0	.....	20.0	60.0	.....	.....
	1908	10	68.0	.....	.....	20.0	.....	20.0	60.0	.....	.....
	1909	10	67.7	.....	.....	20.0	.....	70.0	10.0	.....	.....
	1910	10	67.7	.....	.....	20.0	.....	80.0	.....	.....	.....
5 plants.....	1910	12	69.3	.....	.....	.....	.....	83.3	16.7	.....	.....
	1911	12	68.4	.....	8.3	.....	.....	66.7	25.0	.....	.....
	1912	12	68.4	.....	8.3	.....	.....	66.7	25.0	.....	.....
5 plants.....	1912	12	66.3	.....	.....	33.3	.....	58.3	8.3	.....	.....
	1913	12	66.0	.....	.....	33.3	.....	58.3	8.3	.....	.....
Finishers, 12-inch:											
4 plants.....	1907	12	69.3	.....	.....	.....	8.3	41.7	50.0	.....	.....
	1908	11	70.5	.....	.....	.....	.....	45.5	54.5	.....	.....
	1909	11	70.4	.....	.....	.....	.....	63.6	36.4	.....	.....
	1910	12	69.5	.....	.....	.....	8.3	75.0	16.7	.....	.....
8 plants.....	1910	20	65.8	15.0	.....	.....	5.0	60.0	20.0	.....	.....
	1911	19	65.2	15.8	5.3	5.3	.....	42.1	31.6	.....	.....
10 plants.....	1911	22	63.7	13.6	18.2	4.5	.....	36.4	27.3	.....	.....
	1912	24	63.0	12.5	20.8	8.3	4.2	29.2	25.0	.....	.....
	1913	24	62.8	.....	33.3	8.3	4.2	37.5	16.7	.....	.....
Finishers, 13-inch, 14-inch, and 15-inch:											
1 plant.....	1907	4	60.0	.....	.....	.....	100.0	.....	.....	.....	.....
	1908	4	60.0	.....	.....	.....	100.0	.....	.....	.....	.....
	1909	4	60.0	.....	.....	.....	100.0	.....	.....	.....	.....
	1910	4	60.0	.....	.....	.....	100.0	.....	.....	.....	.....
4 plants.....	1910	15	64.0	20.0	.....	.....	26.7	.....	53.3	.....	.....
	1911	15	64.0	20.0	.....	.....	26.7	.....	53.3	.....	.....
	1912	15	64.0	20.0	.....	.....	26.7	.....	53.3	.....	.....
	1913	13	63.4	.....	23.1	.....	15.4	30.8	30.8	.....	.....
Finishers, 16-inch:											
2 plants.....	1907	8	62.8	.....	.....	25.0	.....	75.0	.....	.....	.....
	1908	8	62.8	.....	.....	25.0	.....	75.0	.....	.....	.....
	1909	8	62.8	.....	.....	25.0	.....	75.0	.....	.....	.....
	1910	9	62.2	.....	.....	33.3	.....	66.7	.....	.....	.....
3 plants.....	1910	11	62.5	.....	.....	27.3	9.1	63.6	.....	.....	.....
	1911	11	63.5	.....	.....	18.2	.....	81.8	.....	.....	.....
4 plants.....	1911	19	61.1	.....	21.1	10.5	.....	68.4	.....	.....	.....
	1912	20	61.1	.....	20.0	10.0	.....	70.0	.....	.....	.....
	1913	18	61.1	.....	22.2	11.1	.....	66.7	.....	.....	.....
Finishers, 18-inch:											
1 plant.....	1907	2	62.8	.....	.....	.....	.....	100.0	.....	.....	.....
	1908	2	62.8	.....	.....	.....	50.0	50.0	.....	.....	.....
	1909	2	62.8	.....	.....	.....	.....	100.0	.....	.....	.....
	1910	2	62.8	.....	.....	.....	.....	100.0	.....	.....	.....
3 plants.....	1910	5	61.9	.....	.....	.....	40.0	60.0	.....	.....	.....
	1911	5	60.7	.....	.....	20.0	40.0	40.0	.....	.....	.....
	1912	6	58.9	.....	33.3	.....	33.3	33.3	.....	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Finishers, 18-inch—Concluded.											
5 plants.....	1912	11	58.6	.....	27.3	36.4	18.2	18.2	.....	.....	.....
	1913	12	58.7	.....	25.0	33.3	25.0	16.7	.....	.....	.....
Finishers, all sizes:											
10 plants.....	1907	65	65.9	.....	1.5	10.8	13.8	47.7	26.2	.....	.....
	1908	63	66.4	.....	3.2	9.5	11.1	49.2	27.0	.....	.....
	1909	63	66.2	.....	3.2	9.5	9.5	68.3	9.5	.....	.....
	1910	64	66.1	.....	3.1	9.4	7.8	75.0	4.7	.....	.....
17 plants.....	1910	111	64.0	13.5	2.7	4.5	9.0	55.0	15.3	.....	.....
	1911	110	63.4	13.6	7.3	8.2	7.3	45.5	18.2	.....	.....
19 plants.....	1911	121	62.8	12.4	12.4	7.4	6.6	44.6	16.5	.....	.....
	1912	126	62.5	11.9	15.9	5.6	7.1	43.7	15.9	.....	.....
21 plants.....	1912	137	62.0	10.9	13.1	18.2	6.6	38.0	13.1	.....	.....
	1913	134	61.8	.....	25.4	18.7	6.0	42.5	7.5	.....	.....
Hook ups, 12-inch:											
6 plants.....	1907	49	64.8	18.4	.....	.....	.....	32.7	49.0	.....	.....
	1908	37	69.1	8.1	.....	.....	.....	16.2	75.7	.....	.....
	1909	37	68.9	8.1	.....	.....	.....	37.8	54.1	.....	.....
	1910	37	69.9	.....	.....	.....	.....	51.4	48.6	.....	.....
13 plants.....	1910	69	62.8	26.1	5.8	.....	2.9	33.3	31.9	.....	.....
	1911	53	63.4	22.6	7.5	3.8	.....	35.8	30.2	.....	.....
	1912	56	62.5	21.4	12.5	3.6	.....	35.7	26.8	.....	.....
	1913	58	61.5	5.2	34.5	3.4	.....	37.9	19.0	.....	.....
Hook ups, 13-inch, 14-inch, and 15-inch:											
1 plant.....	1907	8	60.0	.....	.....	.....	100.0	.....	.....	.....	.....
	1908	14	60.0	.....	.....	.....	100.0	.....	.....	.....	.....
	1909	8	60.0	.....	.....	.....	100.0	.....	.....	.....	.....
	1910	12	60.0	.....	.....	.....	100.0	.....	.....	.....	.....
5 plants.....	1910	50	64.2	18.0	.....	.....	24.0	16.0	42.0	.....	.....
	1911	45	64.2	20.0	.....	.....	20.0	15.6	44.4	.....	.....
	1912	51	63.8	17.6	.....	.....	27.5	15.7	39.2	.....	.....
	1913	43	63.8	.....	20.9	.....	16.3	34.9	27.9	.....	.....
Hook ups, 16-inch:											
5 plants.....	1907	26	63.9	.....	.....	7.7	.....	92.3	.....	.....	.....
	1908	23	64.4	.....	.....	8.7	.....	91.3	.....	.....	.....
	1909	27	64.7	.....	.....	7.4	.....	92.6	.....	.....	.....
	1910	35	64.1	.....	.....	5.7	.....	94.3	.....	.....	.....
	1911	25	64.4	.....	.....	8.0	.....	92.0	.....	.....	.....
6 plants.....	1911	35	62.4	.....	17.1	5.7	.....	77.1	.....	.....	.....
	1912	36	61.5	.....	22.2	5.6	.....	72.2	.....	.....	.....
5 plants.....	1912	32	61.1	.....	25.0	6.3	.....	68.8	.....	.....	.....
	1913	34	61.5	.....	23.5	5.9	.....	70.6	.....	.....	.....
Hook ups, 18-inch:											
2 plants.....	1907	9	62.2	.....	.....	11.1	.....	88.9	.....	.....	.....
	1908	10	61.0	.....	20.0	.....	.....	80.0	.....	.....	.....
	1909	10	61.0	.....	20.0	.....	.....	80.0	.....	.....	.....
	1910	9	60.8	.....	22.2	.....	.....	77.8	.....	.....	.....
5 plants.....	1910	20	60.4	.....	20.0	.....	30.0	50.0	.....	.....	.....
	1911	21	60.5	.....	19.0	14.3	.....	66.7	.....	.....	.....
	1912	24	59.2	.....	41.7	.....	.....	58.3	.....	.....	.....
7 plants.....	1912	38	59.0	.....	31.6	31.6	.....	36.8	.....	.....	.....
	1913	40	58.8	.....	35.0	30.0	.....	35.0	.....	.....	.....
Hook ups, all sizes:											
12 plants.....	1907	92	63.9	9.8	.....	3.3	8.7	52.2	26.1	.....	.....
	1908	84	65.3	3.6	2.4	2.4	16.7	41.7	33.3	.....	.....
	1909	82	65.7	3.7	2.4	2.4	9.8	57.3	24.4	.....	.....
	1910	93	65.6	.....	2.2	2.2	12.9	63.4	19.4	.....	.....
20 plants.....	1910	174	63.2	15.5	4.6	1.1	11.5	42.5	24.7	.....	.....
	1911	144	63.4	14.6	5.6	4.9	6.3	43.8	25.0	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employ-ees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Hook ups, all sizes—Concluded.											
21 plants.....	1911	154	63.0	13.6	9.1	4.5	5.8	43.5	23.4		
	1912	167	62.2	12.6	15.0	2.4	8.4	40.7	21.0		
22 plants.....	1912	177	61.9	11.9	15.3	9.0	7.9	36.2	19.8		
	1913	175	61.4	1.7	29.1	9.1	4.0	42.9	13.1		
Roll hands, other, 8-inch:											
5 plants.....	1907	20	65.1		10.0	10.0	5.0	55.0	20.0		
	1908	20	65.3		10.0	10.0	5.0	55.0	20.0		
	1909	20	65.1		10.0	10.0	5.0	75.0			
	1910	20	65.1		5.0	20.0	5.0	70.0			
9 plants.....	1910	33	60.6	18.2	9.1	21.2	3.0	48.5			
	1911	33	60.0	18.2	9.1	27.3	3.0	42.4			
	1912	33	60.0	18.2	12.1	21.2	3.0	45.5			
	1913	36	59.6		44.4	11.1	2.8	41.7			
Roll hands, other, 9-inch:											
3 plants.....	1907	18	59.7	33.3				66.7			
	1908	18	60.4	33.3				66.7			
	1909	18	60.3	33.3				66.7			
	1910	18	60.3	33.3				66.7			
6 plants.....	1910	35	56.5	51.4			5.7	42.9			
	1911	35	56.1	51.4	5.7			42.9			
	1912	36	56.3	50.0	5.6			44.4			
	1913	36	57.2	16.7	36.1	5.6		41.7			
Roll hands, other, 10-inch:											
4 plants.....	1907	29	70.4				6.9	17.2	75.9		
	1908	29	70.4				6.9	17.2	75.9		
	1909	29	70.0				6.9	93.1			
	1910	29	70.0				3.4	96.6			
7 plants.....	1910	39	67.8		10.3		2.6	82.1	5.1		
	1911	39	66.8		15.4		5.1	74.4	5.1		
	1912	39	66.8		15.4		5.1	74.4	5.1		
6 plants.....	1912	33	66.0		15.2	6.1	6.1	72.7			
	1913	33	66.0		15.2	6.1	6.1	72.7			
Roll hands, other, 12-inch:											
4 plants.....	1907	24	70.1					25.0	75.0		
	1908	21	70.4					23.8	76.2		
	1909	21	70.3					33.3	66.7		
	1910	22	69.9					36.4	63.6		
9 plants.....	1910	33	67.0	9.1	6.1			33.3	51.5		
	1911	32	67.7	9.4	3.1			31.3	56.3		
	1912	33	67.5	9.1	3.0			33.3	54.5		
7 plants.....	1912	28	67.5	10.7				32.1	57.1		
	1913	28	67.4		10.7			39.3	50.0		
Roll hands, other, 13-inch, 14-inch, and 15-inch:											
3 plants.....	1910	29	62.1	41.4					58.6		
	1911	28	61.7	42.9					57.1		
	1912	25	63.4	36.0					64.0		
	1913	19	60.0		47.4			31.6	21.1		
Roll hands, other, 16-inch:											
2 plants.....	1907	4	64.5				25.0	75.0			
	1908	4	64.5				25.0	75.0			
	1909	4	64.5				25.0	75.0			
	1910	4	64.5				25.0	75.0			
	1911	4	64.5				25.0	75.0			
	1912	3	64.5				33.3	66.7			
1 plant.....	1912	6	64.5				16.7	83.3			
	1913	6	64.5				16.7	83.3			
Roll hands, other, 18-inch:											
1 plant.....	1907	2	62.8					100.0			
	1908	2	62.8					100.0			
	1909	2	62.8					100.0			
	1910	2	62.8					100.0			

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Contd.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Roll hands, other, 18-inch—Con.											
4 plants.....	1910	7	59.9	.....	28.6	.....	28.6	42.9	.....	.....	.....
	1911	6	60.8	.....	16.7	16.7	.....	66.7	.....	.....	.....
	1912	7	59.2	.....	42.9	.....	.....	57.1	.....	.....	.....
5 plants.....	1912	9	59.3	.....	33.3	22.2	.....	44.4	.....	.....	.....
	1913	10	58.9	.....	40.0	20.0	.....	40.0	.....	.....	.....
Roll hands, other, all sizes:											
9 plants.....	1907	97	66.8	6.2	2.1	2.1	4.1	40.2	45.4	.....	.....
	1908	94	67.0	6.4	2.1	2.1	4.3	40.4	44.7	.....	.....
	1909	94	66.8	6.4	2.1	2.1	4.3	70.2	14.9	.....	.....
	1910	95	66.7	6.3	1.1	4.2	3.2	70.5	14.7	.....	.....
18 plants.....	1910	180	62.8	21.7	6.1	3.9	3.9	44.4	20.0	.....	.....
	1911	177	62.5	22.0	7.3	5.6	2.3	42.4	20.3	.....	.....
	1912	176	62.7	20.5	9.1	4.0	2.3	43.8	20.5	.....	.....
18 plants.....	1912	170	62.2	21.2	8.2	6.5	2.4	42.9	18.8	.....	.....
	1913	168	61.8	3.6	29.8	6.0	2.4	47.6	10.7	.....	.....
Hotbed men:											
15 plants.....	1907	302	63.3	4.0	2.6	17.9	13.9	43.0	18.5	.....	.....
	1908	299	63.2	4.0	4.0	17.4	19.1	34.8	20.7	.....	.....
	1909	286	63.3	4.2	4.2	18.2	14.7	53.8	4.9	.....	.....
	1910	302	63.3	5.0	4.0	14.9	15.6	54.0	6.6	.....	.....
25 plants.....	1910	500	62.9	11.4	6.4	9.6	14.2	43.2	11.8	3.4	.....
	1911	434	62.0	12.4	9.0	14.5	6.7	47.7	9.7	.....	.....
26 plants.....	1911	450	61.9	12.0	10.0	14.0	6.4	48.2	9.3	.....	.....
	1912	461	61.7	11.7	13.2	13.0	5.4	45.3	11.3	.....	.....
26 plants.....	1912	455	61.5	11.9	11.9	18.0	5.5	42.6	10.1	.....	.....
	1913	467	60.9	2.6	23.6	16.1	2.8	49.9	5.1	.....	.....
Shearmen:											
15 plants.....	1907	94	64.8	.....	6.4	8.5	16.0	51.1	18.1	.....	.....
	1908	92	65.1	.....	6.5	8.7	18.5	45.7	20.7	.....	.....
	1909	93	65.3	.....	6.5	8.6	18.3	59.1	3.2	4.3	.....
	1910	97	65.0	.....	6.2	7.2	18.6	61.9	6.2	.....	.....
25 plants.....	1910	156	63.3	9.6	11.5	4.5	14.1	46.2	10.3	3.8	.....
	1911	151	62.5	9.9	10.6	11.9	11.9	45.0	10.6	.....	.....
	1912	154	62.4	9.7	11.7	12.3	12.3	40.9	11.7	1.3	.....
24 plants.....	1912	156	62.4	9.6	12.2	12.2	10.3	42.9	11.5	1.3	.....
	1913	159	62.0	.....	25.2	10.7	8.2	52.2	2.5	1.3	.....
Shearmen's helpers:											
15 plants.....	1907	201	65.9	.....	4.0	2.0	10.4	62.2	20.4	1.0	.....
	1908	172	66.2	.....	4.7	2.3	12.8	58.7	10.9	4.7	.....
	1909	185	67.3	.....	4.3	2.2	14.1	59.5	4.3	15.7	.....
	1910	215	65.3	.....	3.7	1.4	18.1	65.1	11.6	.....	.....
23 plants.....	1910	355	64.7	12.7	2.3	.8	12.1	44.5	21.7	5.9	.....
	1911	359	63.8	13.4	2.2	5.6	10.3	50.4	18.1	.....	.....
	1912	358	63.9	13.4	3.4	5.6	9.8	46.4	18.2	3.4	.....
22 plants.....	1912	337	63.4	15.1	4.2	5.9	10.1	46.9	14.2	3.6	.....
	1913	316	62.8	.....	21.8	5.4	7.0	61.4	1.3	3.2	.....
Bundlers:											
5 plants.....	1907	41	66.9	.....	.....	.....	.....	75.6	24.4	.....	.....
	1908	41	66.9	.....	.....	.....	.....	75.6	24.4	.....	.....
	1909	41	66.8	.....	.....	.....	.....	100.0	.....	.....	.....
	1910	41	67.1	.....	.....	.....	.....	100.0	.....	.....	.....
6 plants.....	1910	77	66.1	.....	.....	.....	.....	100.0	.....	.....	.....
	1911	81	63.5	.....	.....	44.4	.....	55.6	.....	.....	.....
7 plants.....	1911	131	62.0	.....	.....	65.6	.....	34.4	.....	.....	.....
	1912	132	62.0	.....	.....	65.2	.....	34.8	.....	.....	.....
7 plants.....	1912	129	61.6	.....	.....	69.8	.8	29.5	.....	.....	.....
	1913	136	61.4	.....	.....	71.3	.7	27.9	.....	.....	.....

TABLE III.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN THE UNITED STATES, BY YEARS, 1907 TO 1913—BAR MILLS—Concl'd.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Laborers:											
10 plants.....	1907	296	68.3	.....	.....	0.3	17.2	47.3	25.0	8.1	2.0
	1908	227	64.8	.....	.....	.9	41.4	47.6	7.9	.....	2.2
	1909	324	67.8	.....	.....	.6	23.5	42.3	27.2	4.0	2.5
	1910	424	67.2	.....	.....	2.1	28.1	26.7	41.5	.....	1.7
15 plants.....	1910	511	67.8	.....	.....	1.8	29.2	25.0	35.8	4.7	3.5
	1911	355	66.0	.....	8.7	.8	19.7	49.3	19.7	1.1	.6
17 plants.....	1911	390	65.5	.....	7.9	.8	26.7	44.9	18.2	1.0	.5
	1912	424	65.9	.....	4.2	9.7	16.3	48.1	19.8	1.2	.7
21 plants.....	1912	536	65.0	.....	6.5	16.2	14.7	42.7	18.3	.9	.6
	1913	705	64.3	.....	6.1	16.3	23.3	44.0	3.5	6.2	.6

¹ Including 0.8 per cent whose full-time hours per week were 84½, and 0.4 per cent whose full-time hours per week were 91.

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS.

STOCKERS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	6	71	59.1	.....	22	4	35	6	4	.....	.....
Pittsburgh.....	7	86	63.9	27	2	4	10	22	21	.....	.....
Great Lakes and Middle West...	4	58	63.1	.....	10	.....	.....	45	3	.....	.....
Total.....	17	215	60.9	27	34	8	45	73	28	.....	.....
1913.											
Eastern.....	6	86	59.2	.....	30	.....	38	14	4	.....	.....
Pittsburgh.....	7	82	63.3	.....	29	4	6	43	.....	.....	.....
Great Lakes and Middle West...	4	58	63.1	.....	10	.....	.....	45	3	.....	.....
Total.....	17	226	63.6	.....	69	4	44	102	7	.....	.....

HEATERS.

1912.											
Eastern.....	8	65	61.2	.....	15	10	.....	36	4	.....	.....
Pittsburgh.....	10	85	61.2	18	1	18	.....	40	6	2	.....
Great Lakes and Middle West...	8	46	63.7	.....	12	2	2	22	6	.....	2
Total.....	26	196	61.8	18	28	30	2	98	16	2	2
1913.											
Eastern.....	8	72	61.1	.....	15	14	2	37	4	.....	.....
Pittsburgh.....	10	86	61.6	3	16	18	.....	46	.....	3	.....
Great Lakes and Middle West...	8	53	62.7	.....	14	2	1	29	5	.....	2
Total.....	26	211	61.7	3	45	34	3	112	9	3	2

HEATERS' HELPERS.

1912.											
Eastern.....	8	104	61.1	.....	18	36	2	40	8	.....	.....
Pittsburgh.....	10	172	60.8	45	3	36	.....	74	12	2	.....
Great Lakes and Middle West...	6	42	63.4	.....	.....	.....	4	36	.....	2	.....
Total.....	24	318	61.9	45	21	72	6	150	20	4	.....
1913.											
Eastern.....	8	116	61.0	.....	18	43	3	44	8	.....	.....
Pittsburgh.....	10	171	61.2	3	45	33	.....	88	.....	2	.....
Great Lakes and Middle West...	6	37	60.4	.....	.....	.....	2	31	2	.....	2
Total.....	24	324	62.0	3	63	76	5	163	10	2	2

CHARGERS AND HELPERS.

1912.											
Eastern.....	3	15	61.2	.....	3	.....	2	10	.....	.....	.....
Pittsburgh.....	9	104	64.4	12	.....	26	.....	36	30	.....	.....
Great Lakes and Middle West...	7	62	64.8	.....	10	.....	4	42	6	.....	.....
Total.....	19	181	64.3	12	13	26	6	88	36	.....	.....
1913.											
Eastern.....	3	21	61.0	.....	4	.....	5	12	.....	.....	.....
Pittsburgh.....	9	104	63.3	.....	12	26	.....	58	8	.....	.....
Great Lakes and Middle West...	7	63	65.4	.....	10	.....	2	40	8	.....	.....
Total.....	19	185	63.7	.....	26	26	7	110	16	.....	.....

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

DRAG DOWNS.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	7	33	63.9	.....	13	4	.....	10	6	.....	.....
Pittsburgh.....	8	65	66.5	.....	1	16	.....	34	12	2	.....
Great Lakes and Middle West.....	5	23	60.0	.....	10	.....	.....	10	3	.....	.....
Total.....	20	121	63.8	.....	24	20	.....	54	21	2	.....
1913.											
Eastern.....	7	36	61.0	.....	13	3	2	12	6	.....	.....
Pittsburgh.....	8	65	65.4	.....	1	16	.....	46	.....	2	.....
Great Lakes and Middle West.....	5	23	60.0	.....	10	.....	.....	10	3	.....	.....
Total.....	20	124	63.1	.....	24	19	2	68	9	2	.....

ROLL ENGINEERS.

1912.											
Eastern.....	6	18	66.7	.....	4	.....	1	4	7	2	.....
Pittsburgh.....	8	53	70.4	.....	.....	.....	.....	33	4	16	.....
Great Lakes and Middle West.....	6	22	72.1	.....	.....	.....	.....	12	1	7	2
Total.....	20	93	70.1	.....	4	.....	1	49	12	25	2
1913.											
Eastern.....	6	22	65.6	.....	6	.....	2	4	8	2	.....
Pittsburgh.....	8	53	71.8	.....	.....	.....	.....	23	.....	30	.....
Great Lakes and Middle West.....	6	22	72.4	.....	.....	.....	.....	12	1	7	2
Total.....	20	97	70.5	.....	6	.....	2	39	9	39	2

ROLLERS: 8-INCH.

1912.											
Eastern.....	3	5	54.8	.....	2	3	.....	.....	.....	.....	.....
Pittsburgh.....	6	20	58.1	.....	6	.....	2	7	1	.....	.....
Great Lakes and Middle West.....	2	4	61.5	.....	1	1	.....	2	.....	.....	.....
Total.....	11	29	58.0	.....	6	4	2	9	1	.....	.....
1913.											
Eastern.....	3	5	52.6	.....	4	1	.....	.....	.....	.....	.....
Pittsburgh.....	6	20	58.9	.....	2	8	2	7	1	.....	.....
Great Lakes and Middle West.....	2	4	61.5	.....	1	1	.....	2	.....	.....	.....
Total.....	11	29	58.1	.....	2	13	2	9	1	.....	.....

ROLLERS: 9-INCH.

1912.											
Eastern.....	2	5	61.2	.....	.....	.....	3	2	.....	.....	.....
Pittsburgh.....	5	10	63.6	.....	3	1	1	3	2	.....	.....
Great Lakes and Middle West.....	3	7	67.8	.....	.....	.....	1	5	1	.....	.....
Total.....	10	22	63.0	.....	3	1	5	10	3	.....	.....
1913.											
Eastern.....	2	5	61.2	.....	.....	.....	3	2	.....	.....	.....
Pittsburgh.....	5	10	60.2	.....	4	.....	2	3	1	.....	.....
Great Lakes and Middle West.....	3	7	67.8	.....	.....	.....	1	5	1	.....	.....
Total.....	10	22	62.8	.....	4	.....	6	10	2	.....	.....

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

ROLLERS: 10-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	2	6	52.3	.....	4	2	.....	.....	.....	.....	.....
Pittsburgh.....	5	12	67.1	.....	1	.....	2	6	3	.....	.....
Total.....	7	18	62.1	.....	5	2	2	6	3	.....	.....
1913.											
Eastern.....	2	6	51.7	.....	4	2	.....	.....	.....	.....	.....
Pittsburgh.....	5	12	67.1	.....	1	.....	2	6	3	.....	.....
Total.....	7	18	61.9	.....	5	2	2	6	3	.....	.....

ROLLERS: 12-INCH.

1912.											
Eastern.....	4	7	61.1	.....	1	1	.....	5	.....	.....	.....
Pittsburgh.....	5	13	63.2	3	1	.....	1	4	4	.....	.....
Great Lakes and Middle West.....	3	7	71.1	.....	.....	.....	.....	2	5	.....	.....
Total.....	12	27	64.7	3	2	1	1	11	9	.....	.....
1913.											
Eastern.....	4	8	61.0	.....	1	1	1	5	.....	.....	.....
Pittsburgh.....	5	13	62.8	1	3	.....	2	4	3	.....	.....
Great Lakes and Middle West.....	3	7	71.1	.....	.....	.....	.....	2	5	.....	.....
Total.....	12	28	64.4	1	4	1	3	11	8	.....	.....

ROLLERS: 13-INCH, 14-INCH, AND 15-INCH.

1912.											
Eastern.....	1	2	72.0	.....	.....	.....	.....	.....	2	.....	.....
Pittsburgh.....	2	5	57.6	3	.....	.....	.....	.....	2	.....	.....
Great Lakes and Middle West.....	1	2	68.0	.....	.....	.....	.....	2	.....	.....	.....
Total.....	4	9	63.1	3	.....	.....	.....	2	4	.....	.....
1913.											
Eastern.....	1	2	72.0	.....	.....	.....	.....	.....	2	.....	.....
Pittsburgh.....	2	5	56.8	.....	3	.....	1	.....	1	.....	.....
Great Lakes and Middle West.....	1	2	68.0	.....	.....	.....	.....	2	.....	.....	.....
Total.....	4	9	62.7	.....	3	.....	1	2	3	.....	.....

ROLLERS: 16-INCH.

1912.											
Eastern.....	2	3	59.8	.....	.....	2	.....	1	.....	.....	.....
Pittsburgh.....	2	4	64.3	.....	.....	.....	1	3	.....	.....	.....
Great Lakes and Middle West.....	1	4	60.5	.....	2	.....	.....	2	.....	.....	.....
Total.....	5	11	61.7	.....	2	2	1	6	.....	.....	.....
1913.											
Eastern.....	2	4	61.0	.....	.....	2	.....	2	.....	.....	.....
Pittsburgh.....	2	4	64.3	.....	.....	.....	1	3	.....	.....	.....
Great Lakes and Middle West.....	1	3	58.7	.....	2	.....	.....	1	.....	.....	.....
Total.....	5	11	61.5	.....	2	2	1	6	.....	.....	.....

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

ROLLERS: 18-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—						
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84
1912.										
Eastern.....	4	7	58.1		4			3		
Pittsburgh.....	2	3	57.3		1	2				
Great Lakes and Middle West.....	1	2	62.8				1	1		
Total.....	7	12	58.7		5	2	1	4		
1913.										
Eastern.....	4	8	58.3		3	1	1	3		
Pittsburgh.....	2	3	57.3		1	2				
Great Lakes and Middle West.....	1	2	62.8				1	1		
Total.....	7	13	58.8		4	3	2	4		

ROLLERS: ALL SIZES.

1912.										
Eastern.....	8	35	58.6	.....	11	8	3	11	2	.....
Pittsburgh.....	10	67	61.3	15	8	7	23	12	.....	.....
Great Lakes and Middle West.....	6	26	66.2	.....	3	1	2	14	6	.....
Total.....	24	128	61.6	15	22	11	12	48	20	.....
1913.										
Eastern.....	8	38	58.5	.....	12	7	5	12	2	.....
Pittsburgh.....	10	67	61.4	3	20	2	10	23	9	.....
Great Lakes and Middle West.....	6	25	66.2	.....	3	1	2	13	6	.....
Total.....	24	130	61.5	3	35	10	17	48	17	.....

ROUGHERS: 8-INCH.

1912.										
Eastern.....	3	13	55.7	.....	4	9	.....	.....	.....	.....
Pittsburgh.....	6	54	56.5	24	7	2	.....	21	.....	.....
Great Lakes and Middle West.....	2	12	54.3	.....	12	.....	.....	.....	.....	.....
Total.....	11	79	56.0	24	23	11	.....	21	.....	.....
1913.										
Eastern.....	3	13	53.2	.....	10	3	.....	.....	.....	.....
Pittsburgh.....	6	54	57.6	.....	25	14	.....	15	.....	.....
Great Lakes and Middle West.....	2	12	54.3	.....	12	.....	.....	.....	.....	.....
Total.....	11	79	56.4	.....	47	17	.....	15	.....	.....

ROUGHERS: 9-INCH.

1912.										
Eastern.....	2	15	58.2	.....	9	.....	.....	6	.....	.....
Pittsburgh.....	5	27	62.0	6	.....	6	.....	9	6	.....
Great Lakes and Middle West.....	4	40	53.1	21	8	.....	.....	8	3	.....
Total.....	11	82	57.0	27	17	6	.....	23	9	.....
1913.										
Eastern.....	2	15	58.2	.....	9	.....	.....	6	.....	.....
Pittsburgh.....	5	27	61.3	.....	6	6	.....	15	.....	.....
Great Lakes and Middle West.....	4	41	52.9	22	8	.....	.....	8	3	.....
Total.....	11	83	56.6	22	23	6	.....	29	3	.....

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

ROUGHERS: 10-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	2	16	54.0		8	8					
Pittsburgh.....	5	37	65.1	3		8		26			
Total.....	7	53	61.7	3	8	16		26			
1913.											
Eastern.....	2	16	53.1		8	8					
Pittsburgh.....	5	37	65.1	3		8		26			
Total.....	7	53	61.5	3	8	16		26			

ROUGHERS: 12-INCH.

1912.											
Eastern.....	5	27	58.4		15			12			
Pittsburgh.....	5	36	65.8	6		2		22	6		
Great Lakes and Middle West.....	3	18	70.7					8	10		
Total.....	13	81	64.4	6	15	2		42	16		
1913.											
Eastern.....	5	30	58.1		18			12			
Pittsburgh.....	5	36	65.2		6	2		28			
Great Lakes and Middle West.....	3	18	70.7					8	10		
Total.....	13	84	63.8		24	2		48	10		

ROUGHERS: 13-INCH, 14-INCH, AND 15-INCH.

1912.											
Eastern.....	1	2	72.0						2		
Pittsburgh.....	2	16	54.0	12					4		
Great Lakes and Middle West.....	2	29	64.7				12	17			
Total.....	5	47	61.4	12			12	17	6		
1913.											
Eastern.....	1	2	72.0						2		
Pittsburgh.....	2	16	54.5		12			4			
Great Lakes and Middle West.....	2	23	65.9				6	17			
Total.....	5	41	61.8		12		6	21	2		

ROUGHERS: 16-INCH.

1912.											
Eastern.....	2	10	58.9			8		2			
Pittsburgh.....	2	14	64.3					14			
Great Lakes and Middle West.....	1	8	57.8		4			4			
Total.....	5	32	61.0		4	8		20			
1913.											
Eastern.....	2	14	60.5			8		6			
Pittsburgh.....	2	14	64.3					14			
Great Lakes and Middle West.....	1	6	56.8		4			2			
Total.....	5	34	61.4		4	8		22			

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

ROUGHERS: 18-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—						
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84
1912.										
Eastern.....	4	16	57.5		10			6		
Pittsburgh.....	2	9	58.8		1	8				
Great Lakes and Middle West.....	1	6	62.8					6		
Total.....	7	31	58.9		11	8		12		
1913.										
Eastern.....	4	18	57.2		12			6		
Pittsburgh.....	2	9	58.8		1	8				
Great Lakes and Middle West.....	1	6	62.8					6		
Total.....	7	33	58.6		13	8		12		

ROUGHERS: ALL SIZES.

1912.										
Eastern.....	8	99	57.5		46	25		23	2	
Pittsburgh.....	10	193	61.1	51	8	26		92	16	
Great Lakes and Middle West.....	8	113	59.8	21	24		12	43	13	
Total.....	26	405	59.9	72	78	51	12	161	31	
1913.										
Eastern.....	8	108	57.2		57	19		30	2	
Pittsburgh.....	10	193	61.3	3	50	38		102		
Great Lakes and Middle West.....	8	106	59.7	22	24		6	41	13	
Total.....	26	407	59.8	25	131	57	6	173	15	

CATCHERS: 8-INCH.

1912.										
Eastern.....	3	5	54.8		2	3				
Pittsburgh.....	2	14	53.7	6		8				
Great Lakes and Middle West.....	1	6	54.5		6					
Total.....	6	25	54.1	6	8	11				
1913.										
Eastern.....	3	5	52.6		4	1				
Pittsburgh.....	2	14	54.9		6	8				
Great Lakes and Middle West.....	1	6	54.5		6					
Total.....	6	25	54.3		16	9				

CATCHERS: 9-INCH.

1912.										
Eastern.....	1	2	63.0					2		
Pittsburgh.....	1	3	48.0	3						
Great Lakes and Middle West.....	1	8	54.5		8					
Total.....	3	13	54.3	3	8			2		
1913.										
Eastern.....	1	2	63.0					2		
Pittsburgh.....	1	3	50.7		3					
Great Lakes and Middle West.....	1	8	54.5		8					
Total.....	3	13	54.9		11			2		

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

CATCHERS: 10-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	1	4	48.8		4						
Pittsburgh.....	1	14	71.5					14			
Total.....	2	18	66.4		4			14			
1913.											
Eastern.....	1	4	48.8		4						
Pittsburgh.....	1	14	71.5					14			
Total.....	2	18	66.4		4			14			

CATCHERS: 12-INCH.

1912.											
Eastern.....	4	12	58.9		6			6			
Pittsburgh.....	5	13	63.2	3		2		6	2		
Total.....	9	25	61.1	3	6	2		12	2		
1913.											
Eastern.....	4	12	58.9		6			6			
Pittsburgh.....	5	13	62.8		3	2		8			
Total.....	9	25	61.0		9	2		14			

CATCHERS: 13-INCH, 14-INCH, AND 15-INCH.

1912.											
Eastern.....	1	2	72.0						2		
Pittsburgh.....	2	5	57.6	3					2		
Total.....	3	7	61.7	3					4		
1913.											
Eastern.....	1	2	72.0						2		
Pittsburgh.....	2	5	56.8		3			2			
Total.....	3	7	61.1		3			2	2		

CATCHERS: 16-INCH.

1912.											
Eastern.....	1	1	64.5					1			
Pittsburgh.....	2	6	64.3					6			
Total.....	3	7	64.4					7			
1913.											
Eastern.....	1	2	64.5					2			
Pittsburgh.....	2	6	64.3					6			
Total.....	3	8	64.4					8			

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

CATCHERS: 18-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	4	7	56.6		5			2			
Pittsburgh.....	2	4	56.3		2	2					
Great Lakes and Middle West.....	1	2	62.8					2			
Total.....	7	13	57.5		7	2		4			
1913.											
Eastern.....	4	8	56.4		6			2			
Pittsburgh.....	2	4	56.3		2	2					
Great Lakes and Middle West.....	1	2	62.8					2			
Total.....	7	14	57.3		8	2		4			

CATCHERS: ALL SIZES.

1912.											
Eastern.....	8	33	57.8		17	3		11	2		
Pittsburgh.....	10	59	61.3	15	2	12		26	4		
Great Lakes and Middle West...	2	16	55.5		14			2			
Total.....	20	108	59.4	15	33	15		39	6		
1913.											
Eastern.....	8	35	57.6		20	1		12	2		
Pittsburgh.....	10	59	61.6		17	12		30			
Great Lakes and Middle West...	2	16	55.5		14			2			
Total.....	20	110	59.4		51	13		44	2		

STRANDERS: 8-INCH.

1912.											
Eastern.....	3	7	56.1		2	5					
Pittsburgh.....	6	48	61.0	6		22		20			
Great Lakes and Middle West...	2	12	61.5		6			6			
Total.....	11	67	60.6	6	8	27		26			
1913.											
Eastern.....	3	6	53.4		4	2					
Pittsburgh.....	6	48	61.4		6	22		20			
Great Lakes and Middle West...	2	12	61.5		6			6			
Total.....	11	66	60.7		16	24		26			

STRANDERS: 9-INCH.

1912.											
Eastern.....	2	13	57.5		9			4			
Pittsburgh.....	4	16	66.0			6		4	6		
Great Lakes and Middle West...	3	28	52.8	18				8	2		
Total.....	9	57	57.6	18	9	6		16	8		
1913.											
Eastern.....	2	13	57.5		9			4			
Pittsburgh.....	4	16	63.8			6		10			
Great Lakes and Middle West...	3	28	52.8	18				8	2		
Total.....	9	57	56.9	18	9	6		22	2		

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

STRANDERS: 10-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							84
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	
1912.											
Eastern.....	2	8	54.0	.....	4	4	.....	.....	.....	.....	.....
Pittsburgh.....	5	47	55.4	21	.....	8	.....	18	.....	.....	.....
Total.....	7	55	55.2	21	4	12	.....	18	.....	.....	.....
1913.											
Eastern.....	2	8	53.1	.....	4	4	.....	.....	.....	.....	.....
Pittsburgh.....	5	47	55.4	21	.....	8	.....	18	.....	.....	.....
Total.....	7	55	55.1	21	4	12	.....	18	.....	.....	.....

STRANDERS: 12-INCH.

1912.										
Eastern.....	4	10	58.3	.....	6	.....	.....	4	.....	.....
Pittsburgh.....	4	23	64.2	3	.....	6	.....	4	.....	.....
Great Lakes and Middle West.....	1	10	72.0	.....	.....	.....	.....	10	.....	.....
Total.....	9	43	64.7	3	6	6	.....	8	20	.....
1913.										
Eastern.....	4	16	56.9	.....	12	.....	.....	4	.....	.....
Pittsburgh.....	4	23	62.0	.....	3	6	.....	14	.....	.....
Great Lakes and Middle West.....	1	10	72.0	.....	.....	.....	.....	10	.....	.....
Total.....	9	49	62.4	.....	15	6	.....	18	10	.....

STRANDERS: 13-INCH, 14-INCH, AND 15-INCH.

1912.										
Great Lakes and Middle West.....	1	22	60.0	.....	.....	.....	22	.....	.....	.....
1913.										
Great Lakes and Middle West.....	1	11	60.0	.....	.....	.....	11	.....	.....	.....

STRANDERS: 16-INCH.

1912.										
Great Lakes and Middle West.....	1	8	55.0	.....	8	.....	.....	.....	.....	.....
1913.										
Great Lakes and Middle West.....	1	8	55.0	.....	8	.....	.....	.....	.....	.....

STRANDERS: ALL SIZES.

1912.										
Eastern.....	6	38	56.7	.....	21	9	.....	8	.....	.....
Pittsburgh.....	8	134	60.2	30	.....	42	.....	46	16	.....
Great Lakes and Middle West.....	6	80	58.7	18	14	.....	22	14	12	.....
Total.....	20	252	59.2	48	35	51	22	68	28	.....
1913.										
Eastern.....	6	43	55.9	.....	29	6	.....	8	.....	.....
Pittsburgh.....	8	134	59.7	21	9	42	.....	62	.....	.....
Great Lakes and Middle West.....	6	69	58.5	18	14	.....	11	14	12	.....
Total.....	20	246	58.7	39	52	48	11	84	12	.....

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

FINISHERS: 8-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	2	3	58.8			3					
Pittsburgh.....	6	22	58.0	6		10	1	5			
Great Lakes and Middle West.....	2	6	64.0		2			4			
Total.....	10	31	59.3	6	2	13	1	9			
1913.											
Eastern.....	2	3	55.2		2	1					
Pittsburgh.....	6	22	58.7		6	10	1	5			
Great Lakes and Middle West.....	2	6	64.0		2			4			
Total.....	10	31	59.4		10	11	1	9			

FINISHERS: 9-INCH.

1912.											
Eastern.....	1	3	55.0		3						
Pittsburgh.....	5	10	60.6	3	1		1	3		2	
Great Lakes and Middle West.....	3	11	68.2					10	1		
Total.....	9	24	63.4	3	4		1	13	3		
1913.											
Eastern.....	1	3	55.0		3						
Pittsburgh.....	5	10	60.2		3	2	1	4			
Great Lakes and Middle West.....	3	11	68.2					10	1		
Total.....	9	24	63.2		6	2	1	14	1		

FINISHERS: 10-INCH.

1912.											
Eastern.....	1	2	59.3			2					
Pittsburgh.....	4	10	67.7			2		7	1		
Total.....	5	12	66.3			4		7	1		
1913.											
Eastern.....	1	2	57.5			2					
Pittsburgh.....	4	10	67.7			2		7	1		
Total.....	5	12	66.0			4		7	1		

FINISHERS: 12-INCH.

1912.											
Eastern.....	3	5	54.1		5						
Pittsburgh.....	5	13	63.2	3		2	1	3	4		
Great Lakes and Middle West.....	2	6	70.0					4	2		
Total.....	10	24	63.0	3	5	2	1	7	6		
1913.											
Eastern.....	3	5	54.1		5						
Pittsburgh.....	5	13	62.8		3	2	1	5	2		
Great Lakes and Middle West.....	2	6	70.0					4	2		
Total.....	10	24	62.8		8	2	1	9	4		

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

FINISHERS: 13-INCH, 14-INCH, AND 15-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	1	4	72.0							4	
Pittsburgh.....	2	7	61.7	3						4	
Great Lakes and Middle West.....	1	4	60.0				4				
Total.....	4	15	64.0	3			4			8	
1913.											
Eastern.....	1	4	72.0							4	
Pittsburgh.....	2	7	59.4		3			4			
Great Lakes and Middle West.....	1	2	60.0				2				
Total.....	4	13	63.4		3		2	4		4	

FINISHERS: 16-INCH.

1912.											
Eastern.....	1	2	57.5			2					
Pittsburgh.....	2	10	64.4					10			
Great Lakes and Middle West.....	1	8	57.8		4			4			
Total.....	4	20	61.1		4	2		14			
1913.											
Eastern.....	1	2	57.5			2					
Pittsburgh.....	2	10	64.4					10			
Great Lakes and Middle West.....	1	6	56.8		4			2			
Total.....	4	18	61.1		4	2		12			

FINISHERS: 18-INCH.

1912.											
Eastern.....	2	4	57.0		2		2				
Pittsburgh.....	2	5	58.2		1	4					
Great Lakes and Middle West.....	1	2	62.8					2			
Total.....	5	11	58.6		3	4	2	2			
1913.											
Eastern.....	2	5	57.6		2		3				
Pittsburgh.....	2	5	58.2		1	4					
Great Lakes and Middle West.....	1	2	62.8					2			
Total.....	5	12	58.7		3	4	3	2			

FINISHERS: ALL SIZES.

1912.											
Eastern.....	5	23	59.2		10	7	2		4		
Pittsburgh.....	10	77	61.7	15	2	18	3	28	11		
Great Lakes and Middle West.....	6	37	64.4		6		4	24	3		
Total.....	21	137	62.0	15	18	25	9	52	18		
1913.											
Eastern.....	5	24	58.6		12	5	3		4		
Pittsburgh.....	10	77	61.5		16	20	3	35	3		
Great Lakes and Middle West.....	6	33	64.9		6		2	22	3		
Total.....	21	134	61.8		34	25	8	57	10		

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

HOOK UPS: 12-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	5	11	57.6	.....	7	.....	.....	4	.....	.....	.....
Pittsburgh.....	5	32	60.6	12	.....	2	.....	14	.....	4	.....
Great Lakes and Middle West.....	3	13	71.5	.....	.....	.....	.....	2	.....	11	.....
Total.....	13	56	62.5	12	7	2	.....	20	.....	15	.....
1913.											
Eastern.....	5	12	57.4	.....	8	.....	.....	4	.....	.....	.....
Pittsburgh.....	5	32	60.8	.....	12	2	.....	18	.....	.....	.....
Great Lakes and Middle West.....	3	14	66.4	3	.....	.....	.....	.....	.....	11	.....
Total.....	13	58	61.5	3	20	2	.....	22	.....	11	.....

HOOK UPS: 13-INCH, 14-INCH, AND 15-INCH.

1912.										
Eastern.....	1	12	72.0	.....	.....	.....	.....	.....	12	.....
Pittsburgh.....	2	17	59.3	9	.....	.....	.....	.....	8	.....
Great Lakes and Middle West...	2	22	62.9	.....	.....	.....	14	8	.....	.....
Total.....	5	51	63.8	9	.....	.....	14	8	20	.....
1913.										
Eastern.....	1	12	72.0	.....	.....	.....	.....	.....	12	.....
Pittsburgh.....	2	17	57.9	.....	9	.....	.....	8	.....	.....
Great Lakes and Middle West...	2	14	64.0	.....	.....	.....	7	7	.....	.....
Total.....	5	43	63.8	.....	9	.....	7	15	12	.....

HOOK UPS: 16-INCH.

1912.										
Eastern.....	2	6	62.2	.....	.....	2	.....	4	.....	.....
Pittsburgh.....	2	14	64.3	.....	.....	.....	.....	14	.....	.....
Great Lakes and Middle West...	1	12	56.8	.....	8	.....	.....	4	.....	.....
Total.....	5	32	61.1	.....	8	2	.....	22	.....	.....
1913.										
Eastern.....	2	10	63.1	.....	.....	2	.....	8	.....	.....
Pittsburgh.....	2	14	64.3	.....	.....	.....	.....	14	.....	.....
Great Lakes and Middle West...	1	10	56.1	.....	8	.....	.....	2	.....	.....
Total.....	5	34	61.5	.....	8	2	.....	24	.....	.....

HOOK UPS: 18-INCH.

1912.										
Eastern.....	4	16	57.5	.....	10	.....	.....	6	.....	.....
Pittsburgh.....	2	14	58.6	.....	2	12	.....	.....	.....	.....
Great Lakes and Middle West...	1	8	62.8	.....	.....	.....	.....	8	.....	.....
Total.....	7	38	59.0	.....	12	12	.....	14	.....	.....
1913.										
Eastern.....	4	18	57.2	.....	12	.....	.....	6	.....	.....
Pittsburgh.....	2	14	58.6	.....	2	12	.....	.....	.....	.....
Great Lakes and Middle West...	1	8	62.8	.....	.....	.....	.....	8	.....	.....
Total.....	7	40	58.8	.....	14	12	.....	14	.....	.....

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

HOOK UPS: ALL SIZES.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	7	45	62.0	.....	17	2	.....	14	12	.....	.....
Pittsburgh.....	8	77	60.6	21	2	14	.....	28	12	.....	.....
Great Lakes and Middle West.....	7	55	63.6	.....	8	.....	14	22	11	.....	.....
Total.....	22	177	61.9	21	27	16	14	64	35	.....	.....
1913.											
Eastern.....	7	52	61.8	.....	20	2	.....	18	12	.....	.....
Pittsburgh.....	8	77	60.4	.....	23	14	.....	40	.....	.....	.....
Great Lakes and Middle West.....	7	46	62.8	3	8	.....	7	17	11	.....	.....
Total.....	22	175	61.4	3	51	16	7	75	23	.....	.....

ROLL HANDS, OTHER: 8-INCH.

1912.											
Eastern.....	2	5	54.3	.....	2	3	.....	.....	.....	.....	.....
Pittsburgh.....	6	24	59.7	6	2	4	1	11	.....	.....	.....
Great Lakes and Middle West.....	1	4	69.0	.....	.....	.....	.....	4	.....	.....	.....
Total.....	9	33	60.0	6	4	7	1	15	.....	.....	.....
1913.											
Eastern.....	2	8	52.7	.....	8	.....	.....	.....	.....	.....	.....
Pittsburgh.....	6	24	60.3	.....	8	4	1	11	.....	.....	.....
Great Lakes and Middle West.....	1	4	69.0	.....	.....	.....	.....	4	.....	.....	.....
Total.....	9	36	59.6	.....	16	4	1	15	.....	.....	.....

ROLL HANDS, OTHER: 9-INCH.

1912.											
Eastern.....	1	2	63.0	.....	.....	.....	.....	2	.....	.....	.....
Pittsburgh.....	3	18	52.5	12	2	.....	.....	4	.....	.....	.....
Great Lakes and Middle West.....	2	16	59.7	6	.....	.....	.....	10	.....	.....	.....
Total.....	6	36	56.3	18	2	.....	.....	16	.....	.....	.....
1913.											
Eastern.....	1	2	63.0	.....	.....	.....	.....	2	.....	.....	.....
Pittsburgh.....	3	18	54.3	.....	13	2	.....	3	.....	.....	.....
Great Lakes and Middle West.....	2	16	59.7	6	.....	.....	.....	10	.....	.....	.....
Total.....	6	36	57.2	6	13	2	.....	15	.....	.....	.....

ROLL HANDS, OTHER: 10-INCH.

1912.											
Eastern.....	1	4	48.8	.....	4	.....	.....	.....	.....	.....	.....
Pittsburgh.....	5	29	68.3	.....	1	2	2	24	.....	.....	.....
Total.....	6	33	66.0	.....	5	2	2	24	.....	.....	.....
1913.											
Eastern.....	1	4	48.8	.....	4	.....	.....	.....	.....	.....	.....
Pittsburgh.....	5	29	68.3	.....	1	2	2	24	.....	.....	.....
Total.....	6	33	66.0	.....	5	2	2	24	.....	.....	.....

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

ROLL HANDS, OTHER: 12-INCH.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—						
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84
1912.										
Eastern.....	1	4	64.5					4		
Pittsburgh.....	5	10	62.4	3				5	2	
Great Lakes and Middle West.....	1	14	72.0						14	
Total.....	7	28	67.5	3				9	16	
1913.										
Eastern.....	1	4	64.5					4		
Pittsburgh.....	5	10	62.0		3			7		
Great Lakes and Middle West.....	1	14	72.0						14	
Total.....	7	28	67.4		3			11	14	

ROLL HANDS, OTHER: 13-INCH, 14-INCH, AND 15-INCH.

1912.										
Eastern.....	1	4	72.0						4	
Pittsburgh.....	2	21	61.7	9					12	
Total.....	3	25	63.4	9					16	
1913.										
Eastern.....	1	4	72.0						4	
Pittsburgh.....	2	15	56.8		9			6		
Total.....	3	19	60.0		9			6	4	

ROLL HANDS, OTHER: 16-INCH.

1912.										
Pittsburgh.....	1	6	64.5				1	5		
1913.										
Pittsburgh.....	1	6	64.5				1	5		

ROLL HANDS, OTHER: 18-INCH.

1912.										
Eastern.....	3	5	57.8		3			2		
Pittsburgh.....	1	2	59.5			2				
Great Lakes and Middle West.....	1	2	62.8					2		
Total.....	5	9	59.3		3	2		4		
1913.										
Eastern.....	3	6	57.3		4			2		
Pittsburgh.....	1	2	59.5			2				
Great Lakes and Middle West.....	1	2	62.8					2		
Total.....	5	10	58.9		4	2		4		

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—BAR MILLS—Continued.

ROLL HANDS, OTHER: ALL SIZES.

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Eastern.....	6	24	59.5	.....	9	3	.....	8	4	.....	.....
Pittsburgh.....	9	110	61.7	30	5	8	4	49	14	.....	.....
Great Lakes and Middle West...	3	36	65.7	6	.....	.....	.....	16	14	.....	.....
Total.....	18	170	62.2	36	14	11	4	73	32	.....	.....
1913.											
Eastern.....	6	28	58.3	.....	16	.....	.....	8	4	.....	.....
Pittsburgh.....	9	104	61.4	.....	34	10	4	56	.....	.....	.....
Great Lakes and Middle West...	3	36	65.7	6	.....	.....	.....	16	14	.....	.....
Total.....	18	168	61.8	6	50	10	4	80	18	.....	.....

HOTBED MEN.

1912.											
Eastern.....	8	109	58.4	.....	38	36	.....	29	6	.....	.....
Pittsburgh.....	10	236	61.5	54	2	46	.....	118	16	.....	.....
Great Lakes and Middle West.....	8	110	64.7	.....	14	.....	25	47	24	.....	.....
Total.....	26	455	61.5	54	54	82	25	194	46	.....	.....
1913.											
Eastern.....	8	121	58.7	.....	48	29	.....	32	12	.....	.....
Pittsburgh.....	10	244	61.6	12	44	46	.....	142	.....	.....	.....
Great Lakes and Middle West.....	8	102	61.7	.....	18	.....	13	59	12	.....	.....
Total.....	26	467	60.9	12	110	75	13	233	24	.....	.....

SHEARMEN.

1912.											
Eastern.....	8	39	58.5	.....	12	9	7	9	2	.....	.....
Pittsburgh.....	9	71	62.3	15	1	10	1	36	8	.....	.....
Great Lakes and Middle West.....	7	46	65.7	.....	6	.....	8	22	8	2	.....
Total.....	24	156	62.4	15	19	19	16	67	18	2	.....
1913.											
Eastern.....	8	46	58.2	.....	18	7	7	12	2	.....	.....
Pittsburgh.....	9	71	62.2	.....	16	10	1	44	.....	.....	.....
Great Lakes and Middle West.....	7	42	65.8	.....	6	.....	5	27	2	2	.....
Total.....	24	159	62.0	.....	40	17	13	83	4	2	.....

SHEARMEN'S HELPERS.

1912.											
Eastern.....	6	55	63.0	.....	4	6	12	33	.....	.....	.....
Pittsburgh.....	9	192	61.7	51	2	14	.....	99	26	.....	.....
Great Lakes and Middle West.....	7	90	67.1	.....	8	.....	22	26	22	12	.....
Total.....	22	337	63.4	51	14	20	34	158	48	12	.....
1913.											
Eastern.....	6	49	61.4	.....	8	3	12	26	.....	.....	.....
Pittsburgh.....	9	191	61.4	.....	53	14	.....	124	.....	.....	.....
Great Lakes and Middle West.....	7	76	67.2	.....	8	.....	10	44	4	10	.....
Total.....	22	316	62.8	.....	69	17	22	194	4	10	.....

TABLE IV.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK IN EACH YEAR, BY DISTRICTS, 1912 AND 1913—**BAR MILLS**—Concluded.**BUNDLERS.**

Year and district.	Number of plants.	Number of employees.	Average full-time hours per week.	Number of employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
1912.											
Pittsburgh.....	7	129	61.6	.....	.....	90	1	38	.....	.....	.....
1913.											
Pittsburgh.....	7	136	61.4	.....	.....	97	1	38	.....	.....	.....

LABORERS.

1912.											
Eastern.....	5	140	58.9	.....	35	38	52	15	.....	.....	.....
Pittsburgh.....	9	283	67.1	.....	48	24	128	77	5	.....	1
Great Lakes and Middle West...	7	113	67.1	.....	1	3	86	21	.....	.....	2
Total.....	21	536	65.0	.....	35	87	79	229	98	5	3
1913.											
Eastern.....	5	186	58.7	.....	43	68	55	20	.....	.....	.....
Pittsburgh.....	9	395	66.0	.....	42	107	199	6	39	.....	2
Great Lakes and Middle West...	7	124	67.2	.....	5	2	91	19	5	.....	2
Total.....	21	705	64.3	.....	43	115	164	310	25	44	4

SHEET MILLS.

SUMMARY.

Summary figures relating to the sheet-mill department of the iron and steel industry are given with figures for other departments in the introductory summary on pages 5 to 15. An explanation of the scope of the investigation and of the methods employed is given on pages 15 to 23.

Briefly stated, in 1913 the average rate of wages, or earnings, per hour of employees in the principal productive occupations in sheet mills was 16.8 per cent higher than in 1910; 7 per cent higher than in 1911; and 3.7 per cent higher than in 1912. The average full-time hours of work in 1913 were 0.9 per cent lower than in 1910, and 0.2 per cent and 0.4 per cent higher than in 1911 and 1912, respectively. The average full-time weekly earnings in 1913 were 16.3 per cent higher than in 1910, 7.1 per cent higher than in 1911, and 4.1 per cent higher than in 1912.

The most significant facts concerning the several sheet-mill occupations which are covered in this section of the report are summarized in the table following. Data are presented for the years 1910, 1911, 1912, and 1913, figures for identical plants being grouped together. The data for 1913 represents 2,487 sheet-mill employees in the 14 occupations covered and were obtained from 8 plants having 76 hot mills in operation. The sheet mills for which the data in this report were secured are such as roll ordinary commercial black sheets, gauges 12 to 30, and do not include mills which roll extra heavy sheets or thin plates. Some sheet mills occasionally roll black plates for tinning and when so utilized are classified in this report as tin-plate mills.

Referring to the first occupation, laborers, comparison can be made of data for 9 identical plants from 1910 to 1912, inclusive, and 8 identical plants for 1912 and 1913. The first line of the table is read as follows: In 1910 the 9 sheet mills from which reports were obtained employed 347 laborers whose average full-time hours of work were 63.1 per week. For 4.1 per cent of the 347 laborers, the full-time hours per week were over 48 and under 60; for 64.3 per cent, 60 hours; for 12.7 per cent, over 60 and under 72; and for 19.1 per cent, 72 hours and over. The average rate of wages or earnings per hour of laborers in the year considered (1910) was \$0.164. Of the total number 21.3 per cent earned 14 and under 16 cents per hour, and 78.7, 16 and under 18 cents per hour. The average full-

time weekly earnings were \$10.35. The other lines of the table may be read in the same manner.

Referring to the last column of the table, it is seen that in 9 plants the average full-time weekly earnings of laborers were \$10.35 in 1910. In 1911 there was an advance to \$10.54, and in 1912 a further advance to \$10.72. In the 8 plants reported for 1912 and 1913 the average full-time weekly earnings were \$10.76 and \$12.39, respectively. Comparing the average full-time weekly earnings for 1913 of the several occupations it is seen that the lowest average was that of shearmen's helpers which was \$11.93 and the highest that of rollers which was \$62.08.

In this table occupations are grouped according to the wages paid, beginning with the lowest-paid group, and the occupations in each group are presented in alphabetical order.

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—SHEET MILLS.

[The figures for each group of years are for identical plants.]

Occupation, and number of plants.	Year.	Number of employ-ees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—				Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				48 and under.	Over 48 and under 60.	60	Over 60 and under 72.	72 and over.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 cts. and over.	
Laborers:														
9 plants.....	1910	347	63.1		4.1	64.3	12.7	19.1	\$0.164	21.3	78.7			\$10.35
	1911	361	63.6		4.7	52.9	24.9	17.4	.166	18.3	81.7			10.54
	1912	354	63.5		3.7	54.2	25.7	16.4	.169	6.99	4.			10.72
8 plants.....	1912	238	63.8		5.4	55.0	15.1	24.4	.168	8.99	1.			10.76
	1913	260	65.0		7.7	41.5	18.4	32.3	.191	13.1	83.1	3.8		12.39
Picklers:														
4 plants.....	1910	50	70.8			10.0		90.0	.181	56.0	28.0	16.0		12.75
	1911	49	71.8			10.2		89.8	.172	77.6	8.2	14.3		12.35
5 plants.....	1911	58	71.2		8.6	15.5	75.9		.177	65.5	6.9	27.6		12.54
	1912	39	71.7		12.8	15.4	71.8		.186	51.3	15.4	33.3		13.23
4 plants.....	1912	33	72.4			15.1		84.9	.183	60.6	18.2	21.2		13.17
	1913	30	70.0			16.7		83.3	.202	56.7		20.0	23.3	14.06
										Under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 cts. and over.
Openers:														
7 plants.....	1910	138	46.0	85.5			14.5		.274	1.4	87.7	3.6	7.2	12.57
	1911	167	45.2	89.2			10.8		.275	1.2	85.6	1.8	.6	10.8
	1912	180	45.8	86.7			13.3		.289	36.6	38.9	12.2	4.4	7.8
6 plants.....	1912	170	46.0	85.9			14.1		.274	38.8	41.2	12.9	4.7	2.4
	1913	168	45.4	88.1			11.9		.279	6.0	82.1	11.9		12.56
Shearmen's helpers:														
6 plants.....	1910	62	46.4	83.9			16.1		.261	41.9	53.2	1.6	3.2	11.99
	1911	83	44.9	90.4			9.6		.308	31.3	33.7	21.7	1.2	12.0
	1912	77	45.1	89.6			10.4		.290	26.0	41.6	19.5	13.0	12.88
5 plants.....	1912	67	45.5	88.1			11.9		.267	29.8	47.8	22.4		11.97
	1913	70	45.3	88.6			11.4		.267	54.2	15.7	28.6	1.4	11.93

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR, AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—SHEET MILLS—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—				Average rate of wages per hour.	Percent of employees whose earnings per hour were—					Average full-time weekly earnings.
				48 and under.	Over 48 and under 60	Over 60 and under 72	72 and over.		Under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 cts. and over.	
Doublers:														
9 plants.....	1910	210	42.7	100.0				\$0.372	10.5	50.0	39.5			\$15.86
	1911	252	42.7	100.0				.401	4.0	47.6	40.1	8.3		17.10
	1912	246	42.7	100.0				.412	1.6	30.5	62.2	5.7		17.58
8 plants.....	1912	216	42.7	100.0				.423	1.8	20.8	70.8	6.5		18.06
	1913	222	42.7	100.0				.450	.5	17.6	64.4	16.2	1.4	19.21
Matchers:														
9 plants.....	1910	210	42.7	100.0				.387	10.5	37.6	51.9			16.53
	1911	255	42.7	100.0				.418	5.9	42.7	33.3	18.0		17.83
	1912	249	42.7	100.0				.429	2.8	25.3	60.6	11.2		18.30
8 plants.....	1912	219	42.7	100.0				.439	3.2	15.1	68.9	12.8		18.75
	1913	219	42.7	100.0				.462	.9	14.6	60.3	23.3	.9	19.72
Rollers' helpers or finishers:														
6 plants.....	1912	115	42.7	100.0				.474		48.7		29.6	21.7	20.21
	1913	139	42.7	100.0				.517		43.2	5.0	23.0	28.7	22.05
Sheet heaters' helpers:														
8 plants.....	1910	174	42.7	100.0				.377	5.2	56.3	36.2	2.3		16.07
	1911	215	42.7	100.0				.436		33.5	41.9	23.7	1.0	18.59
	1912	208	42.7	100.0				.439		32.7	47.1	19.2	1.0	18.71
7 plants.....	1912	178	42.7	100.0				.439		38.2	38.2	22.5	1.1	18.74
	1913	178	42.7	100.0				.511		15.2	33.7	34.8	16.3	21.81
									Under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Catchers:														
9 plants.....	1910	215	42.7	100.0				.544	8.8	18.6	38.1	34.4		23.19
	1911	258	42.7	100.0				.587	4.7	12.8	44.6	17.8	20.2	25.03
	1912	252	42.7	100.0				.603	1.6	19.0	15.5	51.6	12.3	25.71
8 plants.....	1912	222	42.7	100.0				.617	1.8	8.1	17.6	58.6	14.0	26.33
	1913	222	42.7	100.0				.652	.5	5.0	14.9	51.4	28.4	27.84
Pair heaters:														
9 plants.....	1910	210	42.7	100.0				.466	20.4	29.5	49.0	1.0		19.89
	1911	255	42.7	100.0				.502	15.7	38.4	27.1	17.6	1.2	21.42
	1912	249	42.7	100.0				.517	5.6	22.5	57.8	14.1		22.06
8 plants.....	1912	219	42.7	100.0				.532	6.4	11.9	65.8	16.0		22.69
	1913	219	42.7	100.0				.558	5.0	7.3	58.4	26.9	2.3	23.79
Roughers:														
9 plants.....	1910	215	42.7	100.0				.558	6.0	15.8	39.1	39.1		23.82
	1911	255	42.7	100.0				.603		5.5	56.5	17.6	20.4	25.71
	1912	252	42.7	100.0				.616		16.7	16.7	51.2	15.5	26.29
8 plants.....	1912	222	42.7	100.0				.633		5.4	18.9	58.1	17.6	26.99
	1913	222	42.7	100.0				.666		1.4	15.8	50.0	32.9	28.40
Rollers:														
9 plants.....	1910	215	42.7	100.0				1.242		1.9	2.3	3.7	92.1	52.98
	1911	259	42.7	100.0				1.380				.4	99.6	58.89
	1912	252	42.7	100.0				1.416					100.0	60.41
8 plants.....	1912	222	42.7	100.0				1.437					100.0	61.31
	1913	222	42.7	100.0				1.455						62.08
Shearmen:														
7 plants.....	1910	85	46.0	85.9		14.1		.689	12.9	7.1	15.3	10.6	54.1	30.79
	1911	104	44.9	90.4		9.6		.722	7.7	5.8	28.8	8.7	49.0	32.86
	1912	105	44.9	90.5		9.5		.768	3.0	5.7	5.7	8.6	77.1	34.67
6 plants.....	1912	95	45.1	89.5		10.5		.757	3.3	6.3	6.3	9.5	74.7	34.42
	1913	93	45.2	89.2		10.8		.801	3.3	1.1	6.5	23.7	65.6	36.34

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—SHEET MILLS—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—				Average rate of wages per hour.	Percent of employees whose earnings per hour were—					Average full-time weekly earnings.
				48 and under.	Over 48 and under 60	Over 60 and under 72	72 and over.		Under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Sheet heaters:														
9 plants.....	1910	215	42.7	100.0	.....	.....	.....	\$0.883	.....	4.2	11.2	84.7	\$37.68	
	1911	259	42.7	100.0	.....	.....	.....	.911	.....	.....	14.7	85.3	38.88	
	1912	253	42.7	130.0	.....	.....	.....	.949	.....	4	14.2	85.4	40.51	
8 plants.....	1912	223	42.7	100.0	.....	.....	.....	.989	.....	4	2.7	96.9	42.21	
	1913	223	42.7	100.0	.....	.....	.....	.998	.....	.....	4.5	95.5	42.60	

To aid in making a comparison of the actual data for the four years which will give an accurate measure of the changes throughout the period, relative or index numbers have been computed from the averages of the preceding table for full-time hours per week, rates of wages per hour, and full-time weekly earnings, for each occupation from 1910 to 1913, inclusive. Such figures appear in the table following.

These relative or index numbers are simply percentages for which the data for 1913 are taken as the base, or 100 per cent. The relative for each year is the per cent which the average for that year is of the average for 1913. For example, the relative full-time weekly earnings of pair heaters in 1910 were 86, as compared with 100 in 1913; that is, the full-time weekly earnings of pair heaters in 1910 were 86 per cent of the full-time weekly earnings in this occupation in 1913. The method of computing relative numbers is explained on pages 21 to 23.

The table also shows for each occupation the per cent of increase or decrease in full-time hours per week, rates of wages per hour, and full-time weekly earnings in 1913, as compared with each specified year preceding. Thus the full-time weekly earnings of pair heaters in 1913 were 16.3 per cent higher than in 1910, 8 per cent higher than in 1911, and 4.8 per cent higher than in 1912.

In other columns of the table is shown the per cent of change in each year as compared with the year immediately preceding. Thus the full-time weekly earnings of pair heaters in 1911 were 7.7 per cent higher than in 1910, in 1912, 3 per cent higher than in 1911, and in 1913, 4.8 per cent higher than in 1912. The other occupations and items of the table can be studied in like manner. The percentages of increase and decrease are computed from the relative numbers.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—SHEET MILLS.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Pair heaters:									
1910.....	100.0	(1)	-----	85.9	+16.4	-----	86.0	+16.3	-----
1911.....	100.0	(1)	(1)	92.6	+ 8.0	+ 7.8	92.6	+ 8.0	+ 7.7
1912.....	100.0	(1)	(1)	95.3	+ 4.9	+ 2.9	95.4	+ 4.8	+ 3.0
1913.....	100.0	-----	(1)	100.0	-----	+ 4.9	100.0	-----	+ 4.8
Rollers:									
1910.....	100.0	(1)	-----	86.6	+15.5	-----	86.6	+15.5	-----
1911.....	100.0	(1)	(1)	96.3	+ 3.8	+11.2	96.3	+ 3.8	+11.2
1912.....	100.0	(1)	(1)	98.8	+ 1.2	+ 2.6	98.8	+ 1.2	+ 2.6
1913.....	100.0	-----	(1)	100.0	-----	+ 1.2	100.0	-----	+ 1.2
Rollers' helpers or finishers:									
1910.....	100.0	(1)	-----	91.7	+ 9.1	-----	91.7	+ 9.1	-----
1913.....	100.0	-----	(1)	100.0	-----	+ 9.1	100.0	-----	+ 9.1
Roughers:									
1910.....	100.0	(1)	-----	86.1	+16.1	-----	86.1	+16.1	-----
1911.....	100.0	(1)	(1)	93.0	+ 7.5	+ 8.0	92.9	+ 7.6	+ 7.9
1912.....	100.0	(1)	(1)	95.0	+ 5.3	+ 2.2	95.0	+ 5.3	+ 2.3
1913.....	100.0	-----	(1)	100.0	-----	+ 5.3	100.0	-----	+ 5.3
Catchers:									
1910.....	100.0	(1)	-----	85.4	+17.1	-----	85.3	+17.2	-----
1911.....	100.0	(1)	(1)	92.1	+ 8.6	+ 7.8	92.1	+ 8.6	+ 8.0
1912.....	100.0	(1)	(1)	94.6	+ 5.7	+ 2.7	94.6	+ 5.7	+ 2.7
1913.....	100.0	-----	(1)	100.0	-----	+ 5.7	100.0	-----	+ 5.7
Matchers:									
1910.....	100.0	(1)	-----	85.7	+16.7	-----	85.9	+16.4	-----
1911.....	100.0	(1)	(1)	92.6	+ 8.0	+ 8.1	92.6	+ 8.0	+ 7.8
1912.....	100.0	(1)	(1)	95.0	+ 5.3	+ 2.6	95.1	+ 5.2	+ 2.7
1913.....	100.0	-----	(1)	100.0	-----	+ 5.3	100.0	-----	+ 5.2
Doublers:									
1910.....	100.0	(1)	-----	84.9	+17.8	-----	84.8	+17.9	-----
1911.....	100.0	(1)	(1)	91.5	+ 9.3	+ 7.8	91.4	+ 9.4	+ 7.8
1912.....	100.0	(1)	(1)	94.0	+ 6.4	+ 2.7	94.0	+ 6.4	+ 2.8
1913.....	100.0	-----	(1)	100.0	-----	+ 6.4	100.0	-----	+ 6.4
Sheet heaters:									
1910.....	100.0	(1)	-----	92.2	+ 8.5	-----	92.2	+ 8.5	-----
1911.....	100.0	(1)	(1)	95.1	+ 5.2	+ 3.1	95.1	+ 5.2	+ 3.1
1912.....	100.0	(1)	(1)	99.1	+ .9	+ 4.2	99.1	+ .9	+ 4.2
1913.....	100.0	-----	(1)	100.0	-----	+ .9	100.0	-----	+ .9
Sheet heaters' helpers:									
1910.....	100.0	(1)	-----	73.8	+35.5	-----	73.8	+35.5	-----
1911.....	100.0	(1)	(1)	85.3	+17.2	+15.6	85.4	+17.1	+15.7
1912.....	100.0	(1)	(1)	85.9	+16.4	+ .7	85.9	+16.4	+ .6
1913.....	100.0	-----	(1)	100.0	-----	+16.4	100.0	-----	+16.4
Shearmen:									
1910.....	102.2	-2.2	-----	84.8	+17.9	-----	84.1	+18.9	-----
1911.....	99.8	+ .2	-2.2	88.8	+12.6	+ 4.7	89.8	+11.4	+ 6.8
1912.....	99.8	+ .2	(1)	94.5	+ 5.8	+ 6.4	94.7	+ 5.6	+ 5.5
1913.....	100.0	+ .2	+ .2	100.0	-----	+ 5.8	100.0	-----	+ 5.6
Shearmen's helpers:									
1910.....	103.3	-3.2	-----	90.0	+11.1	-----	93.4	+ 7.1	-----
1911.....	100.0	(1)	-3.2	106.2	- 5.8	+18.0	105.9	- 5.6	+13.4
1912.....	100.4	- .4	+ .4	100.0	(1)	- 5.8	100.3	- .3	- 5.3
1913.....	100.0	-----	- .4	100.0	-----	(1)	100.0	-----	- .3
Openers:									
1910.....	101.8	-1.8	-----	93.1	+ 7.4	-----	95.4	+ 4.8	-----
1911.....	100.0	(1)	-1.8	93.4	+ 7.1	+ .3	93.7	+ 6.7	- 1.8
1912.....	101.3	-1.3	+1.3	98.2	+ 1.8	+ 5.1	99.0	+ 1.0	+ 5.7
1913.....	100.0	-----	-1.3	100.0	-----	+ 1.8	100.0	-----	+ 1.0

¹ No change.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—SHEET MILLS—Concluded.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Picklers:									
1910.....	101.3	—1.3	.....	90.7	+10.3	.....	91.7	+ 9.1	.....
1911.....	102.7	—2.6	+1.4	86.2	+16.0	— 5.0	88.8	+12.6	— 3.2
1912.....	103.4	—3.3	+ .7	90.6	+10.4	+ 5.1	93.7	+ 6.7	+ 5.5
1913.....	100.4	.....	—3.3	100.0	.....	+10.4	100.0	.....	+ 6.7
Laborers:									
1910.....	97.5	+2.6	.....	85.4	+17.1	.....	83.8	+19.3	.....
1911.....	98.3	+1.7	+ .8	86.4	+15.7	+ 1.2	85.4	+17.1	+ 1.9
1912.....	98.2	+1.8	+ .1	88.0	+13.6	+ 1.9	86.8	+15.2	+ 1.6
1913.....	100.0	.....	+1.8	100.0	.....	+13.6	100.0	.....	+15.2

A similar table of relative numbers and percentages is next shown for the sheet-mill department as a whole, as determined by a combination of the data for the several principal productive occupations which are covered by this section of the report. The method of computing the figures of this table is explained on page 23.

From the table following, under "weekly earnings," it is seen that the relative full-time weekly earnings of the department as a whole in 1910 were 86, as compared with 100 in 1913. In other words, the full-time weekly earnings in 1910 were 86 per cent of such earnings in 1913. The relative increased to 93.4 in 1911, and to 96.1 in 1912. In 1913, the base year, the relative is 100.

The next column shows that full-time weekly earnings in 1913 were 16.3 per cent higher than in 1910, 7.1 per cent higher than in 1911, and 4.1 per cent higher than in 1912. The third column under "weekly earnings" shows the per cent of increase or decrease in full-time weekly earnings each year as compared with the year immediately preceding. Thus the full-time weekly earnings in 1911 were 8.6 per cent higher than in 1910, in 1912, 2.9 per cent higher than in 1911, and in 1913, 4.1 per cent higher than in 1912. The relative numbers and percentages for full-time hours per week and rates of wages per hour can be read in like manner.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, ALL OCCUPATIONS—SHEET MILLS.

Year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
1910.....	100.9	-0.9	.....	85.6	+16.8	.....	86.0	+16.3	.....
1911.....	99.8	+ .2	-1.1	93.5	+ 7.0	+9.2	93.4	+ 7.1	+8.6
1912.....	99.6	+ .4	- .2	96.4	+ 3.7	+3.1	96.1	+ 4.1	+2.9
1913.....	100.0	.....	+ .4	100.0	.....	+3.7	100.0	.....	+4.1

In considering weekly earnings it should be remembered that a reduction of hours tends to reduce weekly earnings, just as an increase in wages per hour, of course, tends to increase them. Still another influence on average weekly earnings for the department must be considered; that is, the change in the relative number of employees in the several occupations from year to year. It is obvious that an increase in the relative number of employees in the lower-paid occupations or a decrease in the relative number of those in the higher-paid ones would tend to lower the average rate and earnings for all occupations, just as an increase in the relative number of employees in the higher-paid occupations or a decrease in the relative number in the lower-paid ones would tend to increase the average.

FULL-TIME WORKING DAYS PER WEEK.

The number and per cent of employees in the principal productive occupations in sheet-mill plants whose customary working time per week was 5 days or turns, or 6 days, or 7 days, or variations thereof, are shown in the following table. It will be noticed that the customary working time of over 80 per cent of the employees in this department was "5 days, 5 days, and 6 days in rotation." In all of the plants covered, the hot-mill employees were divided into three groups each working 8 hours per turn, five turns per week, Monday to Friday, inclusive, with one crew working an extra turn Saturday morning. Each crew advances one turn each week, thus giving each crew the extra Saturday turn every third week.

All of the sheet-mill plants from which reports were obtained are in the Pittsburgh district.

NUMBER AND PER CENT OF EMPLOYEES WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1910 TO 1913—SHEET MILLS.

[The figures for each group of years are for identical plants.]

Number of plants.	Year.	Number of employees.	Number of employees whose customary working time per week was—						Per cent of employees whose customary working time per week was—					
			5 days.	5 days and 6 days alternately.	5 days, 6 days, and 6 days in rotation.	6 days.	6 days and 7 days alternately.	7 days.	5 days.	5 days and 6 days alternately.	5 days, 6 days, and 6 days in rotation.	6 days.	6 days and 7 days alternately.	7 days.
Nine plants.....	1910	2,346	2	46	1,907	380	.....	11	0.1	2.0	81.3	16.2	.....	0.5
	1911	2,772	2	40	2,326	391	.....	13	.1	1.4	83.9	14.1	.....	.5
Nine plants.....	1911	2,781	2	40	2,326	400	.....	13	.1	1.4	83.6	14.4	.....	.5
	1912	2,716	2	46	2,281	370	4	13	.1	1.7	84.0	13.6	0.1	.5
Eight plants.....	1912	2,439	2	46	2,126	248	4	13	.1	1.9	87.2	10.2	.2	.5
	1913	2,487	2	42	2,159	276	.....	8	.1	1.7	86.8	11.1	.....	.3

In addition to the text tables in the summary two general tables are presented for the sheet-mill department, as follows:

Table I.—Average full-time weekly earnings and average and classified rates of wages per hour, by years, 1910 to 1913.

Table II.—Average and classified full-time hours per week, by years, 1910 to 1913.

In Tables I and II, in addition to actual data, percentages computed therefrom are given. The data from these two tables are summarized in the text table on pages 298 to 300.

The order in which the occupations are given in Tables I and II, and in the table of relative numbers, follows that of the processes of manufacture.

"Identical plants," as used in the tables of this report, are identical units of identical establishments, reporting the same occupations in each of two or more consecutive years. For a more extended explanation see page 17.

Descriptions of the occupations which appear in the tables of this report were given in Bulletin No. 151 of this Bureau but have been omitted from the present report.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR, BY YEARS, 1910 TO 1913—SHEET MILLS.

[All the plants reported are in the Pittsburgh district. The figures for each group of years are for identical plants.]

NUMBER.																			
Occupation, and number of plants.	Year.	Number of employ- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earn- ings.	Employees earning each classified rate of wages per hour.													
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.			
Pair heaters: 9 plants.....	1910 1911 1912	210 255 249	42.7 42.7 42.7	\$0.466 .502 .517	\$19.89 21.42 22.06					3 6 2	3 34 12	37 98 56	62 69 144	103 45 144	2 45 35				
8 plants.....	1912 1913	219 219	42.7 42.7	.532 .558	22.69 23.79						2 11	12 26	12 16	144 128	35 59				
Rollers: 9 plants.....	1910 1911 1912	215 259 252	42.7 42.7 42.7	1.242 1.380 1.416	52.98 58.89 60.41								4	5	8	198 258 252			
8 plants.....	1912 1913	222 222	42.7 42.7	1.437 1.455	61.31 62.08												222 222		
Rollers' helpers or finishers: 6 plants.....	1912 1913	115 139	42.7 42.7	.474 .517	20.21 22.05							56 60		34 32	25 18				
Roughers: 9 plants.....	1910 1911 1912	215 255 252	42.7 42.7 42.7	.558 .603 .616	23.82 25.71 26.29							13 34 42	84 144 42	84 45 129	84 52 39				
8 plants.....	1912 1913	222 222	42.7 42.7	.633 .666	26.99 28.40								12 3	42 35	129 111	39 73			
Catchers: 9 plants.....	1910 1911 1912	215 258 252	42.7 42.7 42.7	.544 .587 .603	23.19 25.03 25.71					2	17 12 4	40 33 48	82 115 39	74 46 130	74 52 31				
8 plants.....	1912 1913	222 222	42.7 42.7	.617 .652	26.33 27.84							4 1	18 11	29 33	130 114	31 63			
Matchers: 9 plants.....	1910 1911 1912	210 255 249	42.7 42.7 42.7	.387 .418 .429	16.53 17.83 18.30				4 5 3	18 10 4	79 109 63	109 85 151		28 46 28					
8 plants.....	1912 1913	219 219	42.7 42.7	.439 .462	18.75 19.72				3 4	3 2	33 32	151 132	28 51	28 2					
Doublers: 9 plants.....	1910 1911 1912	210 252 246	42.7 42.7 42.7	.372 .401 .412	15.86 17.10 17.58				6 10 1	16 120 3	105 120 75	83 101 153		21 21 14					
8 plants.....	1912 1913	216 222	42.7 42.7	.423 .450	18.06 19.21				1	3 1	45 39	153 143	14 36				3		
Sheet heaters: 9 plants.....	1910 1911 1912	215 259 253	42.7 42.7 42.7	.883 .911 .949	37.68 38.88 40.51									9 38 1	24 38 36	182 221 216			
8 plants.....	1912 1913	223 223	42.7 42.7	.989 .998	42.21 42.60									1 10	6 21	216 213			
Sheet heaters' helpers: 8 plants.....	1910 1911 1912	174 215 208	42.7 42.7 42.7	.377 .436 .439	16.07 18.59 18.71						9 72 68	98 90 98	63 51 98	4 51 40			1 1 2		
7 plants.....	1912 1913	178 178	42.7 42.7	.439 .511	18.74 21.81							68 27	68 60	40 62	2 20				
Shearmen: 7 plants.....	1910 1911 1912	85 104 105	46.0 44.9 44.9	.689 .722 .768	30.79 32.86 34.67							11 3 1	6 6 1	13 30 6	9 9 9	46 51 81			
6 plants.....	1912 1913	95 93	45.1 45.2	.757 .801	34.42 36.34				1 1	1 1	1 1	6 1	6 1	6 22	6 6	9 71			

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR, BY YEARS, 1910 TO 1913—SHEET MILLS—Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Shearmen's helpers:																	
6 plants.....	1910	62	46.4	\$0.261	\$11.99					26	33	1	2				
	1911	83	44.9	.308	13.59					26	28	18	1	10			
	1912	77	45.1	.290	12.88				12	8	32	15	10				
5 plants.....	1912	67	45.5	.267	11.97				12	8	32	15					
	1913	70	45.3	.267	11.93				12	26	11	20	1				
Openers:																	
7 plants.....	1910	138	46.0	.274	12.57	2					121	5	10				
	1911	167	45.2	.275	12.35			2			143	3	1	17	1		
	1912	180	45.8	.289	13.04			8		58	70	22	8	14			
6 plants.....	1912	170	46.0	.274	12.43			8		58	70	22	8	4			
	1913	168	45.4	.279	12.56			3		7	138	20					
Picklers:																	
4 plants.....	1910	50	70.8	.181	12.75			28	14	8							
	1911	49	71.8	.172	12.35			38	4	7							
5 plants.....	1911	58	71.2	.177	12.54			38	4	16							
	1912	39	71.7	.186	13.23			20	6	13							
4 plants.....	1912	33	72.4	.183	13.17			20	6	7							
	1913	30	70.0	.202	14.06			17		6	7						
Laborers:																	
9 plants.....	1910	347	63.1	.164	10.35		74	273									
	1911	361	63.6	.166	10.54		66	295									
	1912	354	63.5	.169	10.72		2	352									
8 plants.....	1912	238	63.8	.168	10.76		2	236									
	1913	260	65.0	.191	12.39			34	216	10							

PER CENT.

Pair heaters:																
9 plants.....	1910	210	42.7	\$0.466	\$19.89					1.4	1.4	17.6	29.5	49.0	1.0	
	1911	255	42.7	.502	21.42						2.4	13.3	38.4	27.1	17.6	1.2
	1912	249	42.7	.517	22.03						.8	4.8	22.5	57.8	14.1	
8 plants.....	1912	219	42.7	.532	22.69						.9	5.5	11.9	65.8	16.0	
	1913	219	42.7	.558	23.79							5.0	7.3	58.4	26.9	2.3
Rollers:																
9 plants.....	1910	215	42.7	1.242	52.98								1.9	2.3	3.7	92.1
	1911	259	42.7	1.380	58.89										.4	99.6
	1912	252	42.7	1.416	60.41											100.0
8 plants.....	1912	222	42.7	1.437	61.31											100.0
	1913	222	42.7	1.455	62.08											100.0
Rollers' helpers or finishers:																
6 plants.....	1912	115	42.7	.474	20.21							48.7		29.6	21.7	
	1913	139	42.7	.517	22.05							43.2	5.0	23.0	12.9	15.8
Roughers:																
9 plants.....	1910	215	42.7	.558	23.82							6.0	15.8	39.1	39.1	
	1911	255	42.7	.603	25.71								5.5	56.5	17.6	20.4
	1912	252	42.7	.616	26.29								16.7	16.7	51.2	15.5
8 plants.....	1912	222	42.7	.633	26.99									5.4	18.9	58.1
	1913	222	42.7	.666	28.40									1.4	15.8	50.0
Catchers:																
9 plants.....	1910	215	42.7	.544	23.19					.9	7.9	18.6	38.1	34.4		
	1911	258	42.7	.587	25.03							4.7	12.8	44.6	17.8	20.2
	1912	252	42.7	.603	25.71							1.6	19.0	15.5	51.6	12.3
8 plants.....	1912	222	42.7	.617	26.33								1.8	8.1	17.6	58.6
	1913	222	42.7	.652	27.84								.5	5.0	14.9	51.4

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR, BY YEARS, 1910 TO 1913—SHEET MILLS—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Matchers:																
9 plants.....	1910	210	42.7	\$0.387	\$16.53				1.9	8.6	37.6	51.9				
	1911	255	42.7	.418	17.83				2.0	3.9	42.7	33.3	18.0			
	1912	249	42.7	.429	18.30				1.2	1.6	25.3	60.6	11.2			
8 plants.....	1912	219	42.7	.439	18.75				1.4	1.8	15.1	68.9	12.8			
	1913	219	42.7	.462	19.72					.9	14.6	60.3	23.3	0.9		
Doublers:																
9 plants.....	1910	210	42.7	.372	15.86				2.9	7.6	50.0	39.5				
	1911	252	42.7	.401	17.10				4.0	47.6	40.1	8.3				
	1912	246	42.7	.412	17.58				.4	1.2	30.5	62.2	5.7			
8 plants.....	1912	216	42.7	.423	18.06				.4	1.4	20.8	70.8	6.5			
	1913	222	42.7	.450	19.21					.5	17.6	64.4	16.2		1.4	
Sheet heaters:																
9 plants.....	1910	215	42.7	.883	37.68									4.2	11.2	84.7
	1911	259	42.7	.911	38.88										14.7	85.3
	1912	253	42.7	.949	40.51										414.2	85.4
8 plants.....	1912	223	42.7	.989	42.21									.4	2.7	96.9
	1913	223	42.7	.998	42.60										4.5	95.5
Sheet heaters' helpers:																
8 plants.....	1910	174	42.7	.377	16.07					5.2	56.3	36.2	2.3			
	1911	215	42.7	.436	18.59						33.5	41.9	23.7	.5		.5
	1912	208	42.7	.439	18.71						32.7	47.1	19.2	1.0		
7 plants.....	1912	178	42.7	.439	18.74							38.2	38.2	22.5	1.1	
	1913	178	42.7	.511	21.81							15.2	33.7	34.8	11.2	5.1
Shearmen:																
7 plants.....	1910	85	46.0	.689	30.79						12.9	7.1	15.3	10.6	54.1	
	1911	104	44.9	.722	32.86					2.9	4.8	5.8	28.8	8.7	49.0	
	1912	105	44.9	.768	34.67				1.0	1.0	1.0	5.7	5.7	8.6	77.1	
6 plants.....	1912	95	45.1	.757	34.42				1.1	1.1	1.1	6.3	6.3	9.5	74.7	
	1913	93	45.2	.801	36.34				1.1	1.1	1.1	1.1	6.5	23.7	65.6	
Shearmen's helpers:																
6 plants.....	1910	62	46.4	.261	11.99				41.9	53.2	1.6	3.2				
	1911	83	44.9	.308	13.59				31.3	33.7	21.7	1.2	12.0			
	1912	77	45.1	.290	12.88				15.6	10.4	41.6	19.5	13.0			
5 plants.....	1912	67	45.5	.267	11.97				17.9	11.9	47.8	22.4				
	1913	70	45.3	.267	11.93				17.1	37.1	15.7	28.6	1.4			
Openers:																
7 plants.....	1910	138	46.0	.274	12.57	1.4					87.7	3.6	7.2			
	1911	167	45.2	.275	12.35				1.2		85.6	1.8	.6	10.2	.6	
	1912	180	45.8	.289	13.04			4.4		32.2	38.9	12.2	4.4	7.8		
6 plants.....	1912	170	46.0	.274	12.43			4.7		34.1	41.2	12.9	4.7	2.4		
	1913	168	45.4	.279	12.56			1.8		4.2	82.1	11.9				
Picklers:																
4 plants.....	1910	50	70.8	.181	12.75				56.0	28.0	16.0					
	1911	49	71.8	.172	12.35				77.6	8.2	14.3					
5 plants.....	1911	58	71.2	.177	12.54				65.5	6.9	27.6					
	1912	39	71.7	.186	13.23				51.3	15.4	33.3					
4 plants.....	1912	33	72.4	.183	13.17				60.6	18.2	21.2					
	1913	30	70.0	.202	14.06				56.7		20.0	23.3				
Laborers:																
9 plants.....	1910	347	63.1	.164	10.35	21.3			78.7							
	1911	361	63.6	.166	10.54	18.3			81.7							
	1912	354	63.5	.169	10.72	.6			99.4							
8 plants.....	1912	238	63.8	.168	10.76	.8			99.1							
	1913	200	65.0	.191	12.39				13.1	83.1	3.8					

TABLE II.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK, BY YEARS, 1910 TO 1913—SHEET MILLS.

[All the plants reported are in the Pittsburgh district. The figures for each group of years are for identical plants.]

NUMBER.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Pair heaters:											
9 plants.....	1910	210	42.7	210							
	1911	255	42.7	255							
	1912	249	42.7	249							
8 plants.....	1912	219	42.7	219							
	1913	219	42.7	219							
Rollers:											
9 plants.....	1910	215	42.7	215							
	1911	259	42.7	259							
	1912	252	42.7	252							
8 plants.....	1912	222	42.7	222							
	1913	222	42.7	222							
Rollers' helpers or finishers:											
6 plants.....	1912	115	42.7	115							
	1913	139	42.7	139							
Roughers:											
9 plants.....	1910	215	42.7	215							
	1911	255	42.7	255							
	1912	252	42.7	252							
8 plants.....	1912	222	42.7	222							
	1913	222	42.7	222							
Catchers:											
9 plants.....	1910	215	42.7	215							
	1911	258	42.7	258							
	1912	252	42.7	252							
8 plants.....	1912	222	42.7	222							
	1913	222	42.7	222							
Matchers:											
9 plants.....	1910	210	42.7	210							
	1911	255	42.7	255							
	1912	249	42.7	249							
8 plants.....	1912	219	42.7	219							
	1913	219	42.7	219							
Doublers:											
9 plants.....	1910	210	42.7	210							
	1911	252	42.7	252							
	1912	246	42.7	246							
8 plants.....	1912	216	42.7	216							
	1913	222	42.7	222							
Sheet heaters:											
9 plants.....	1910	215	42.7	215							
	1911	259	42.7	259							
	1912	253	42.7	253							
8 plants.....	1912	223	42.7	223							
	1913	223	42.7	223							
Sheet heaters' helpers:											
8 plants.....	1910	174	42.7	174							
	1911	215	42.7	215							
	1912	208	42.7	208							
7 plants.....	1912	178	42.7	178							
	1913	178	42.7	178							
Shearmen:											
7 plants.....	1910	85	46.0	73				12			
	1911	104	44.9	94				10			
	1912	105	44.9	95				10			
6 plants.....	1912	95	45.1	85				10			
	1913	93	45.2	83				10			

TABLE II.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK, BY YEARS, 1910 TO 1913—SHEET MILLS—Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Shearmen's helpers:											
6 plants.....	1910	62	46.4	52	.....	.....	.....	10	.....	.....	.....
	1911	83	44.9	75	.....	.....	.....	8	.....	.....	.....
	1912	77	45.1	69	.....	.....	.....	8	.....	.....	.....
5 plants.....	1912	67	45.5	59	.....	.....	.....	8	.....	.....	.....
	1913	70	45.3	62	.....	.....	.....	8	.....	.....	.....
Openers:											
7 plants.....	1910	138	46.0	118	.....	.....	.....	20	.....	.....	.....
	1911	167	45.2	149	.....	.....	.....	18	.....	.....	.....
	1912	180	45.8	156	.....	.....	.....	24	.....	.....	.....
6 plants.....	1912	170	46.0	146	.....	.....	.....	24	.....	.....	.....
	1913	168	45.4	148	.....	.....	.....	20	.....	.....	.....
Picklers:											
4 plants.....	1910	50	70.8	.....	.....	.....	5	.....	45	.....	.....
	1911	49	71.8	.....	.....	.....	5	.....	40	.....	4
5 plants.....	1911	58	71.2	.....	.....	.....	5	9	40	.....	4
	1912	39	71.7	.....	.....	.....	5	6	22	.....	6
4 plants.....	1912	33	72.4	.....	.....	.....	5	.....	22	.....	6
	1913	30	70.0	.....	.....	.....	5	.....	25	.....	.....
Laborers:											
9 plants.....	1910	347	63.1	.....	2	12	223	44	55	2	9
	1911	361	63.6	.....	4	13	191	90	56	.....	7
	1912	354	63.5	.....	2	11	192	91	54	4	.....
8 plants.....	1912	238	63.8	.....	2	11	131	36	54	4	.....
	1913	260	65.0	.....	.....	20	108	48	84	.....	.....

PER CENT.

Pair heaters:											
9 plants.....	1910	210	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1911	255	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1912	249	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
8 plants.....	1912	219	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1913	219	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
Rollers:											
9 plants.....	1910	215	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1911	259	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1912	252	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
8 plants.....	1912	222	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1913	222	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
Rollers' helpers or finishers:											
6 plants.....	1912	115	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1913	139	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
Roughers:											
9 plants.....	1910	215	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1911	255	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1912	252	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
8 plants.....	1912	222	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1913	222	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
Catchers:											
9 plants.....	1910	215	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1911	258	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1912	252	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
8 plants.....	1912	222	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1913	222	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
Matchers:											
9 plants.....	1910	210	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1911	255	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1912	249	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
8 plants.....	1912	219	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1913	219	42.7	100.0	.....	.....	.....	.....	.....	.....	.....

TABLE II.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK, BY YEARS, 1910 TO 1913—SHEET MILLS—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Doublers:											
9 plants.....	1910	210	42.7	100.0							
	1911	252	42.7	100.0							
	1912	246	42.7	100.0							
8 plants.....	1912	216	42.7	100.0							
	1913	222	42.7	100.0							
Sheet heaters:											
9 plants.....	1910	215	42.7	100.0							
	1911	259	42.7	100.0							
	1912	253	42.7	100.0							
8 plants.....	1912	223	42.7	100.0							
	1913	223	42.7	100.0							
Sheet heaters' helpers:											
8 plants.....	1910	174	42.7	100.0							
	1911	215	42.7	100.0							
	1912	208	42.7	100.0							
7 plants.....	1912	178	42.7	100.0							
	1913	178	42.7	100.0							
Shearmen:											
7 plants.....	1910	85	46.0	85.9				14.1			
	1911	104	44.9	90.4				9.6			
	1912	105	44.9	90.5				9.5			
6 plants.....	1912	95	45.1	89.5				10.5			
	1913	93	45.2	89.2				10.8			
Shearmen's helpers:											
6 plants.....	1910	62	46.4	83.9				16.1			
	1911	83	44.9	90.4				9.6			
	1912	77	45.1	89.6				10.4			
5 plants.....	1912	67	45.5	88.1				11.9			
	1913	70	45.3	88.6				11.4			
Openers:											
7 plants.....	1910	138	46.0	85.5				14.5			
	1911	167	45.2	89.2				10.8			
	1912	180	45.8	86.7				13.3			
6 plants.....	1912	170	46.0	85.9				14.1			
	1913	168	45.4	88.1				11.9			
Picklers:											
4 plants.....	1910	50	70.8				10.0		90.0		
	1911	49	71.8				10.2		81.6		8.2
5 plants.....	1911	58	71.2				8.6	15.5	69.0		6.9
	1912	39	71.7				12.8	15.4	56.4		15.4
4 plants.....	1912	33	72.4				15.1		66.7		18.2
	1913	30	70.0				16.7		83.3		
Laborers:											
9 plants.....	1910	347	63.1		0.6	3.5	64.3	12.7	15.9	0.6	2.6
	1911	361	63.6		1.1	3.6	52.9	24.9	15.5		1.9
	1912	354	63.5		.6	3.1	54.2	25.7	15.3	1.1	
8 plants.....	1912	238	63.8		.8	4.6	55.0	15.1	22.7	1.7	
	1913	260	65.0			7.7	41.5	18.4	32.3		

TIN-PLATE MILLS.

SUMMARY.

Summary figures relating to the tin-plate-mill department of the iron and steel industry are given with figures for other departments in the introductory summary on pages 5 to 15. An explanation of the scope of the investigation and of the methods employed is given on pages 15 to 23.

Briefly stated, in 1913 the average full-time weekly earnings of employees in the principal productive occupations in tin-plate mills were 17.6 per cent higher than in 1910, 5.4 per cent higher than in 1911, and 3.8 per cent higher than in 1912. The average full-time hours of labor per week in 1913 were the same as in 1910, 0.2 per cent higher than in 1911, and 0.4 per cent higher than in 1912. The average rate of wages or earnings per hour in 1913 was 17.6 per cent higher than in 1910, 5.3 per cent higher than in 1911, and 3.7 per cent higher than in 1912.

The most significant facts concerning the several tin-plate-mill occupations which are covered in this section of the report are summarized in the table following. Data are presented for the years 1910, 1911, 1912, and 1913, figures from identical plants being grouped together. The data for 1913 represents 2,778 tin-plate-mill employees in the 19 occupations covered, and were obtained from 6 plants, having 75 hot mills in operation.

Referring to the first occupation—assorters, female—comparison can be made of data for four identical plants in 1910 and 1911, and for five identical plants in 1911, 1912, and 1913. The first line of the table is read as follows: In 1910, four tin-plate mills from which reports were obtained employed 101 sorters, female, whose average full-time hours of work were 49.7 per week. For 45.5 per cent the full-time hours per week were 48 and under; for 7.9 per cent, over 48 and under 56; and for 46.5 per cent, 56 and under 60. The average rate of wages or earnings per hour in the year considered (1910) was \$0.128. Of the total number 92.1 per cent earned under 14 cents per hour, and the remaining 7.9 per cent 14 and under 16 cents per hour. The average full-time weekly earnings were \$6.41. The other lines of the table may be read in the same manner.

Referring to the last column of the table, it is seen that in four plants the average full-time weekly earnings of sorters, female, were \$6.41. In 1911 for the same four plants the average had increased to \$6.97. In 1911 in five plants the average full-time

weekly earnings were \$7.03, increasing in 1912 to \$7.39 and in 1913 to \$8.37.

Comparing the average full-time weekly earnings for 1913 for the several occupations, it is seen that the lowest average was that of assorters, female, which was \$8.37, and the highest that of rollers, which was \$47.76.

In this table occupations are grouped according to the wages paid, beginning with the lowest-paid group, and the occupations in each group are presented in alphabetical order.

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—TIN-PLATE MILLS.

[The figures for each group of years are for identical plants.]

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60		Under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 cts. and over.	
Assorters, female:															
4 plants.....	1910	101	49.7	45.5	7.9	46.5			\$0.128	92.1	7.9				\$6.41
	1911	112	50.2	41.1	8.0	50.9			.138	92.0	2.7			5.4	6.97
5 plants.....	1911	120	50.7	38.3	7.5	54.2			.138	92.5	2.5			5.0	7.03
	1912	127	51.4	37.0	3.9	59.1			.145	69.3	.8	26.8	3.1		7.39
	1913	120	51.5	35.0	5.0	60.0			.163	8.3	.8	86.7	2.5	1.7	8.37
Branners:															
2 plants.....	1910	12	67.8					100.0	.170			100.0			11.52
	1911	20	67.7					100.0	.170			100.0			11.50
	1912	16	67.7					100.0	.170			100.0			11.51
	1913	17	67.7					100.0	.195				100.0		13.20
Laborers:															
4 plants.....	1910	191	60.6		52.9	24.1	23.0	.165		27.2	72.8				9.97
	1911	201	60.4		4.5	39.3	36.3	.163	3.0	30.8	66.2				9.84
5 plants.....	1911	238	61.0		3.8	33.2	37.8	.164	2.5	26.1	71.4				10.01
	1912	239	61.3		.4	34.7	40.6	.169		4.2	95.8				10.37
6 plants.....	1912	276	61.6			30.1	42.8	.167		9.1	90.9				10.32
	1913	322	61.1			33.2	33.5	.190		2.5	13.0	84.5			11.63
Shearmen's helpers:															
2 plants.....	1910	25	61.8				80.0	.118	80.0	20.0					7.31
	1911	31	59.7			25.8	74.2	.118	96.8	3.2					7.02
	1912	29	58.8		24.1		75.9	.123	75.9	17.2	6.9				7.18
3 plants.....	1912	35	57.6	14.3	20.0		62.9	.136	62.9	14.3	8.6	2.9	11.4		7.71
	1913	38	58.7	21.1			60.5	.165	31.6	28.9	18.4		21.0		9.51
										Under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 cts. and over.	
Assorters, male:															
1 plant.....	1911	2	55.0		100.0			.263			100.0				14.44
	1912	2	55.0		100.0			.275			50.0	50.0			15.13
Doublers' helpers:															
5 plants.....	1910	174	42.7	100.0				.324			34.5	65.5			13.82
	1911	179	42.7	100.0				.353				100.0			15.05
6 plants.....	1911	191	42.7	100.0				.351				100.0			14.97
	1912	193	42.7	100.0				.370			1.0	87.0	11.9		15.81
	1913	190	42.7	100.0				.393				47.9	52.1		16.77

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—TIN-PLATE MILLS—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—						Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				48 and under.	Over 48 and under 56.	56 and under 60.	60	Over 60.	Under 20 cts.		20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 cts. and over.		
Openers, male: 3 plants.....	1910 1911	94 76	57.5 57.3	..... .....	16.0 25.0	84.0 75.0	..... .....	..... .....	\$0.221 .262	20.2	79.8 25.0	 75.0	..... .....	..... .....	\$12.72 15.02	
4 plants.....	1911 1912	84 89	57.3 57.5	..... .....	22.6 15.7	77.4 84.3	..... .....	..... .....	.266 .298	..... .....	22.6 39.3	77.4 60.7	..... .....	..... .....	15.24 17.12	
5 plants.....	1912 1913	93 97	56.9 57.7	4.3	15.1 16.5	80.6 75.3	 8.2	..... .....	.296 .310	 6.2	1.1 2.1	39.8 16.5	59.1 75.3	..... .....	16.86 17.89	
Openers, female: 2 plants.....	1910 1911	13 17	45.5 44.1	76.9 88.2	23.1 11.8	..... .....	..... .....	..... .....	.244 .231	..... .....	69.2 100.0	30.8 .....	..... .....	..... .....	11.08 10.22	
1 plant.....	1911 1912 1913	15 18 11	42.7 42.7 60.0	100.0 100.0 .....	..... ..... .....	..... ..... .....	..... ..... 100.0	..... ..... .....	.230 .209 .198	 38.9 45.5	100.0 33.3 54.5	 27.8 .....	..... ..... .....	..... ..... .....	9.81 8.93 11.89	
Risers: 2 plants.....	1910 1911	34 39	44.1 45.0	88.2 84.6	11.8 5.1	 10.3	..... .....	..... .....	.262 .279	..... .....	50.0 46.2	29.4 15.4	20.6 38.5	..... .....	11.51 12.51	
3 plants.....	1911 1912 1913	42 30 34	44.8 50.1 45.1	85.7 40.0 100.0	4.8 60.0	9.5 ..... .....	..... ..... .....	..... ..... .....	.275 .239 .279	 13.3	50.0 53.3 23.5	14.3 23.3 58.8	35.7 10.0 17.6	..... ..... .....	12.30 11.98 12.59	
Screw boys: 5 plants.....	1910 1911	174 186	42.7 42.7	100.0 100.0	..... .....	..... .....	..... .....	..... .....	.308 .342	1.7	14.9 3.2	16.7 18.8	66.7 77.4	 0.5	13.15 14.61	
6 plants.....	1911 1912 1913	198 221 218	42.7 42.7 42.7	100.0 100.0 100.0	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	.345 .352 .373	..... ..... .....	3.0 .5 .5	17.7 19.0 16.5	78.8 38.9 36.7	.5 41.6 46.3	14.72 15.03 15.91	
Catchers: 5 plants.....	1910 1911	174 186	42.7 42.7	100.0 100.0	..... .....	..... .....	..... .....	..... .....	.427 .481	19.5 3.3	22.4 31.7	4.6 11.3	53.4 53.8	..... .....	18.23 20.52	
6 plants.....	1911 1912 1913	198 239 238	42.7 42.7 42.7	100.0 100.0 100.0	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	.487 .403 .427	3.0 5.8 2.1	29.8 33.1 32.4	10.6 54.0 55.0	56.6 5.4 6.7	 1.7 3.8	20.79 17.20 18.23	
Heaters' helpers: 4 plants.....	1910 1911	165 154	42.7 42.7	100.0 100.0	..... .....	..... .....	..... .....	..... .....	.348 .438	..... .....	100.0 59.7	 1.3	 38.9	..... .....	14.84 18.71	
5 plants.....	1911 1912 1913	166 109 103	42.7 42.7 42.7	100.0 100.0 100.0	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	.436 .396 .425	..... ..... .....	55.4 75.2 57.3	8.4 10.1 19.4	36.1 14.7 23.3	..... ..... .....	18.60 16.92 18.15	
Roughers: 5 plants.....	1910 1911	174 184	42.7 42.7	100.0 100.0	..... .....	..... .....	..... .....	..... .....	.425 .506	..... .....	34.5	56.9 43.5	8.6 56.5	..... .....	18.14 21.60	
6 plants.....	1911 1912 1913	196 216 214	42.7 42.7 42.7	100.0 100.0 100.0	..... ..... .....	..... ..... .....	..... ..... .....	..... ..... .....	.507 .513 .553	..... ..... .....	..... .5	40.8 38.4 35.0	59.1 59.3 19.6	 1.9 45.4	21.63 21.89 23.59	
Tinners: 4 plants.....	1910 1911	224 262	42.9 43.0	98.2 97.7	1.8 .8	 1.5	..... .....	..... .....	.402 .439	16.0 .8	37.9 26.3	43.3 68.7	1.3 2.7	1.3 1.5	17.27 18.92	
5 plants.....	1911 1912 1913	283 294 296	43.0 43.4 42.9	97.9 93.9	.7 6.1	1.4 ..... .....	..... ..... .....	..... ..... .....	.429 .444 .456	.7 2.0 .3	31.8 38.8 9.5	63.6 24.1 83.8	2.5 33.3 5.1	1.4 1.7 1.4	18.48 19.28 19.57	

AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK AND RATES OF WAGES PER HOUR AND AVERAGE FULL-TIME WEEKLY EARNINGS IN EACH OF THE PRINCIPAL OCCUPATIONS, 1910 TO 1913—TIN-PLATE MILLS—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Per cent of employees whose full-time hours per week were—					Average rate of wages per hour.	Per cent of employees whose earnings per hour were—					Average full-time weekly earnings.
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60		Under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Doublers:															
5 plants	1910	174	42.7	100.0					\$0.632	5.8	13.8	16.7	13.2	50.6	\$26.97
	1911	193	42.7	100.0					.698	2.6	13.5	41.5	42.5	29.80	
6 plants	1911	205	42.7	100.0					.706	2.4	12.7	39.0	45.9	30.13	
	1912	247	42.7	100.0					.677	5.7	26.7	11.3	56.3	28.90	
	1913	251	42.7	100.0					.699	4.0	10.0	25.5	60.6	29.81	
Heaters:															
5 plants	1910	174	42.7	100.0					.648	6.9	13.2	19.0	7.5	53.4	27.63
	1911	203	42.7	100.0					.709		10.8	60.6	28.6	30.24	
6 plants	1911	215	42.7	100.0					.714		10.2	57.2	32.6	30.47	
	1912	314	42.7	100.0					.675		23.6	57.6	18.8	28.78	
	1913	312	42.7	100.0					.679			9.3	61.9	28.88	
Redippers:															
1 plant	1910	14	46.2	71.4	28.6				.570	14.3	50.0	35.7		26.56	
	1911	17	47.2	70.6	5.9	23.5			.619	5.9	35.3	52.9	5.9	29.32	
	1912	10	55.0	100.0					.592	10.0	30.0	60.0		32.58	
	1913	13	46.6	100.0					.622	7.7	15.4	46.2	23.1	29.00	
Rollers:															
5 plants	1910	174	42.7	100.0					1.025		.6	.6	2.9	96.0	43.73
	1911	189	42.7	100.0					1.103				.5	99.5	47.05
6 plants	1911	201	42.7	100.0					1.109				.5	99.5	47.33
	1912	229	42.7	100.0					1.097					100.0	46.82
	1913	231	42.7	100.0					1.119					100.0	47.76
Shearmen:															
5 plants	1910	58	52.7	53.4	12.1		34.5		.497	24.1	20.7	55.2		25.68	
	1911	61	53.1	50.8	11.5		37.7		.548	6.6	41.0	3.3	49.2	28.50	
6 plants	1911	65	52.8	53.8	10.8		35.4		.555	6.2	38.5	5.1	52.3	28.72	
	1912	72	51.8	59.7	9.7		30.6		.573	16.7	25.0	15.3	4.2	38.9	29.00
	1913	73	51.9	58.9	9.6		31.5		.606	11.0	28.8	2.7	16.4	41.1	30.66

To aid in making a comparison of the actual data for the four years which will give an accurate measure of the changes throughout the period, relative or index numbers have been computed from the averages of the preceding table for full-time hours per week, rates of wages per hour, and full-time weekly earnings, for each occupation from 1910 to 1913, inclusive. Such figures appear in the table following.

These relative or index numbers are simply percentages for which the data for 1913 are taken as the base, or 100 per cent. The relative for each year is the per cent which the average for that year is of the average for 1913. For example, the relative full-time weekly earnings of rollers in 1910 were 92.1 as compared with 100 in 1913; that is, the full-time weekly earnings of rollers in 1910 were 92.1 per cent of the full-time weekly earnings in this occupation in 1913. The method of computing the relative numbers is explained on pages 21 to 23.

This table also shows for each occupation the per cent of increase or decrease in full-time hours per week, rates of wages per hour, and

full-time weekly earnings in 1913 as compared with each specified year preceding. Thus the full-time weekly earnings of rollers in 1913 were 8.6 per cent higher than in 1910, 0.9 per cent higher than in 1911, and 2 per cent higher than in 1912.

In other columns of the table is shown the per cent of change in each year as compared with the year immediately preceding. Thus the full-time weekly earnings of rollers in 1911 were 7.6 per cent higher than in 1910, in 1912, 1.1 per cent lower than in 1911, and in 1913, 2 per cent higher than in 1912. The other occupations and items of the table can be studied in like manner. The percentages of increase and decrease are computed from the relative numbers.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—TIN-PLATE MILLS.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Rollers:									
1910.....	100.0	(1)	.....	92.1	+ 8.6	.....	92.1	+ 8.6	.....
1911.....	100.0	(1)	(1)	99.1	+ .9	+ 7.6	99.1	+ .9	+ 7.6
1912.....	100.0	(1)	(1)	98.0	+ 2.0	— 1.1	98.0	+ 2.0	— 1.1
1913.....	100.0	(1)	(1)	100.0	.....	+ 2.0	100.0	.....	+ 2.0
Roughers:									
1910.....	100.0	(1)	.....	77.0	+29.9	.....	77.0	+29.9	.....
1911.....	100.0	(1)	(1)	91.7	+ 9.1	+19.1	91.7	+ 9.1	+19.1
1912.....	100.0	(1)	(1)	92.8	+ 7.8	+ 1.2	92.8	+ 7.8	+ 1.2
1913.....	100.0	(1)	(1)	100.0	.....	+ 7.8	100.0	.....	+ 7.8
Catchers:									
1910.....	100.0	(1)	.....	101.2	— 1.2	.....	101.3	— 1.3	.....
1911.....	100.0	(1)	(1)	114.1	—12.4	+12.7	114.0	—12.3	+12.5
1912.....	100.0	(1)	(1)	94.4	+ 5.9	—17.3	94.3	+ 6.0	—17.3
1913.....	100.0	(1)	(1)	100.0	.....	+ 5.9	100.0	.....	+ 6.0
Screw boys:									
1910.....	100.0	(1)	.....	83.3	+20.0	.....	83.3	+20.0	.....
1911.....	100.0	(1)	(1)	92.5	+ 8.1	+11.0	92.5	+ 8.1	+11.0
1912.....	100.0	(1)	(1)	94.4	+ 5.9	+ 2.1	94.5	+ 5.8	+ 2.2
1913.....	100.0	(1)	(1)	100.0	.....	+ 5.9	100.0	.....	+ 5.8
Doublers:									
1910.....	100.0	(1)	.....	91.4	+ 9.4	.....	91.5	+ 9.3	.....
1911.....	100.0	(1)	(1)	101.0	— 1.0	+10.5	101.1	— 1.1	+10.5
1912.....	100.0	(1)	(1)	96.9	+ 3.2	— 4.1	96.9	+ 3.2	— 4.2
1913.....	100.0	(1)	(1)	100.0	.....	+ 3.2	100.0	.....	+ 3.2
Doublers' helpers:									
1910.....	100.0	(1)	.....	82.0	+22.0	.....	82.0	+22.0	.....
1911.....	100.0	(1)	(1)	89.3	+12.0	+ 8.9	89.3	+12.0	+ 8.9
1912.....	100.0	(1)	(1)	94.1	+ 6.3	+ 5.4	94.3	+ 6.0	+ 5.6
1913.....	100.0	(1)	(1)	100.0	.....	+ 6.3	100.0	.....	+ 6.0
Heaters:									
1910.....	100.0	(1)	.....	96.1	+ 4.1	.....	96.0	+ 4.2	.....
1911.....	100.0	(1)	(1)	105.2	— .6	+ 9.5	105.1	— 4.9	+ 9.5
1912.....	100.0	(1)	(1)	99.4	+ .6	— 5.5	99.3	+ .7	— 5.5
1913.....	100.0	(1)	(1)	100.0	.....	+ .6	100.0	.....	+ .7

1 No change.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, BY PRINCIPAL OCCUPATIONS—TIN-PLATE MILLS—Concluded.

Occupation and year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
Heaters' helpers:									
1910.....	100.0	(1)	.....	81.5	+22.7	.....	81.3	+23.0	.....
1911.....	100.0	(1)	(1)	102.6	— 2.5	+25.9	102.5	— 2.4	+26.1
1912.....	100.0	(1)	(1)	93.2	+ 7.3	— 9.2	93.2	+ 7.3	— 9.1
1913.....	100.0	.....	(1)	100.0	.....	+ 7.3	100.0	.....	+ 7.3
Shearmen:									
1910.....	101.0	— 1.0	.....	83.1	+20.3	.....	84.4	+18.5	.....
1911.....	101.7	+ 1.7	+ 0.7	91.6	+ 9.2	+10.2	93.7	+ 6.7	+11.0
1912.....	99.8	+ .2	— 1.9	94.6	+ 5.7	+ 3.3	94.6	+ 5.7	+ 1.0
1913.....	100.0	.....	+ .2	100.0	.....	+ 5.7	100.0	.....	+ 5.7
Shearmen's helpers:									
1910.....	103.1	— 3.0	.....	79.1	+26.4	.....	82.5	+21.2	.....
1911.....	99.6	+ .4	— 3.4	79.1	+26.4	(1)	79.3	+26.1	— 3.9
1912.....	98.1	+ 1.9	— 1.5	82.4	+21.4	+ 4.2	81.1	+23.3	+ 2.3
1913.....	100.0	.....	+ 1.9	100.0	.....	+21.4	100.0	.....	+23.3
Openers, male:									
1910.....	98.6	+ 1.4	.....	71.9	+39.1	.....	71.0	+40.8	.....
1911.....	98.3	+ 1.7	— .3	85.2	+17.4	+18.5	83.9	+19.2	+18.2
1912.....	98.6	+ 1.4	+ .3	95.5	+ 4.7	+12.1	94.2	+ 6.2	+12.3
1913.....	100.0	.....	+ 1.4	100.0	.....	+ 4.7	100.0	.....	+ 6.2
Openers, female:									
1910.....	73.4	+36.2	.....	122.7	—18.5	.....	89.4	+11.9	.....
1911.....	71.2	+40.4	— 3.0	116.2	—13.9	— 5.3	82.5	+21.2	— 7.7
1912.....	71.2	+40.4	(1)	105.6	— 5.3	— 9.1	75.1	+33.2	— 9.0
1913.....	100.0	.....	+40.4	100.0	.....	— 5.3	100.0	.....	+33.2
Tinners:									
1910.....	100.0	(1)	.....	86.1	+16.1	.....	86.2	+16.0	.....
1911.....	100.2	— .2	+ .2	94.1	+ 6.3	+ 9.3	94.4	+ 5.9	+ 9.5
1912.....	101.2	— 1.2	+ 1.0	97.4	+ 2.7	+ 3.5	98.5	+ 1.5	+ 4.3
1913.....	100.0	.....	— 1.2	100.0	.....	+ 2.7	100.0	.....	+ 1.5
Redippers:									
1910.....	99.1	+ .9	.....	91.6	+ 9.2	.....	91.6	+ 9.2	.....
1911.....	101.3	— 1.3	+ 2.2	99.5	+ .5	+ 8.6	101.1	— 1.1	+10.4
1912.....	118.0	—15.3	+16.5	95.2	+ 5.0	— 4.3	112.3	—11.0	+11.1
1913.....	100.0	.....	—15.3	100.0	.....	+ 5.0	100.0	.....	—11.0
Risers:									
1910.....	97.3	+ 2.8	.....	92.6	+ 8.0	.....	89.9	+11.2	.....
1911.....	99.3	+ .7	+ 2.1	98.6	+ 1.4	+ 6.5	97.7	+ 2.4	+ 8.7
1912.....	111.1	—10.0	+11.9	85.7	+16.7	—13.1	95.2	+ 5.0	— 2.6
1913.....	100.0	.....	—10.0	100.0	.....	+16.7	100.0	.....	+ 5.0
Branners:									
1910.....	100.1	— .1	.....	87.2	+14.7	.....	87.3	+14.5	.....
1911.....	100.0	(1)	— .1	87.2	+14.7	(1)	87.1	+14.8	— .2
1912.....	100.0	(1)	(1)	87.2	+14.7	(1)	87.2	+14.7	+ .1
1913.....	100.0	.....	(1)	100.0	.....	+14.7	100.0	.....	+14.7
Assorters, male:²									
1910.....	97.5	+ 2.6	.....	78.5	+27.4	.....	77.2	+29.5	.....
1911.....	98.4	+ 1.6	+ .9	84.7	+18.1	+ 7.9	84.0	+19.0	+ 8.8
1912.....	99.8	+ .2	+ 1.4	89.0	+12.4	+ 5.1	88.3	+13.3	+ 5.1
1913.....	100.0	.....	+ .2	100.0	.....	+12.4	100.0	.....	+13.3
Laborers:									
1910.....	100.7	— .7	.....	86.3	+15.9	.....	86.8	+15.2	.....
1911.....	100.3	— .3	— .4	85.3	+17.2	— 1.2	85.7	+16.7	— 1.3
1912.....	100.8	— .8	+ .5	87.9	+13.8	+ 3.0	88.7	+12.7	+ 3.5
1913.....	100.0	.....	— .8	100.0	.....	+13.8	100.0	.....	+12.7

¹ No change.

² None employed in 1913 by establishments reporting. Hence no relatives could be computed for 1910, 1911, and 1912.

A similar table of relative numbers and percentages is next shown for the tin-plate-mill department as a whole, as determined by a combination of the data for the several principal productive occupations which are covered by this section of the report. The method of computing the figures of this table is explained on page 23.

From this table, under "weekly earnings," it is seen that the relative full-time weekly earnings of the department as a whole in 1910 were 85 as compared with 100 in 1913. In other words, the full-time weekly earnings in 1910 were 85 per cent of such earnings in 1913. The relative increased to 94.9 in 1911, to 96.3 in 1912, and in 1913, the base year, the relative is 100. The next column shows that full-time weekly earnings in 1913 were 17.6 per cent higher than in 1910, 5.4 per cent higher than in 1911, and 3.8 per cent higher than in 1912. The third column under "weekly earnings" shows the per cent of increase or decrease in full-time weekly earnings each year as compared with the year immediately preceding. Thus, the full-time weekly earnings in 1911 were 11.6 per cent higher than in 1910; in 1912, 1.5 per cent higher than in 1911; and in 1913, 3.8 per cent higher than in 1912. The relative numbers and percentages for full-time hours per week and rates of wages per hour can be read in like manner.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1913, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS, ALL OCCUPATIONS—TIN-PLATE MILLS.

Year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week.	Per cent of increase (+) or decrease (—) in—		Relative rate of wages per hour.	Per cent of increase (+) or decrease (—) in—		Relative full-time weekly earnings.	Per cent of increase (+) or decrease (—) in—	
		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.		1913 as compared with each specified year.	Each specified year as compared with year preceding.
1910.....	100.0	(1)	.....	85.0	+17.6	.....	85.0	+17.6	.....
1911.....	99.8	+0.2	−0.2	95.0	+5.3	+11.8	94.9	+5.4	+11.6
1912.....	99.6	+ .4	− .2	96.4	+ 3.7	+ 1.5	96.3	+ 3.8	+ 1.5
1913.....	100.0	.....	+ .4	100.0	.....	+ 3.7	100.0	.....	+ 3.8

¹ No change.

In considering weekly earnings it should be remembered that a reduction of hours tends to reduce weekly earnings, just as an increase in wages per hour, of course, tends to increase them. Still another influence on average weekly earnings for the department must be considered; that is, the change in the relative number of employees in

the several occupations from year to year. It is obvious that an increase in the relative number of employees in the lower-paid occupations or a decrease in the relative number of those in the higher-paid ones would tend to lower the average rate and earnings for all occupations, just as an increase in the relative number of employees in the higher-paid occupations or a decrease in the relative number in the lower-paid ones would tend to increase the average.

FULL-TIME WORKING DAYS PER WEEK.

The number and per cent of employees in the principal productive occupations in tin-plate-mill plants whose customary working time per week was 5 days or turns, or 6 days, or 7 days, or variations thereof, are shown in the following table. It will be noticed that the customary working time of nearly 80 per cent of the employees in this department was "5 days, 5 days, and 6 days in rotation." In all of the plants covered the regular turn employees were divided into three crews, each working 8 hours per turn, 5 turns per week, Monday to Friday, inclusive, with one crew working an extra turn Saturday morning. Each crew advances one turn each week, thus giving each crew the extra Saturday turn every third week.

All of the tin-plate-mill plants from which reports were obtained are in the Pittsburgh district.

NUMBER AND PER CENT OF EMPLOYEES WORKING EACH SPECIFIED NUMBER OF DAYS PER WEEK, BY YEARS, 1910 TO 1913—TIN-PLATE MILLS.

[The figures for each group of years are for identical plants.]

Number of plants.	Year.	Em- ploy- ees.	Employees whose customary working time per week was—						
			5 days.	5 days and 6 days alter- nately.	5 days, 5 days, and 6 days in rota- tion.	5 days, 6 days, and 6 days in rota- tion.	6 days.	6 days and 7 days alter- nately.	7 days.
Five plants.....	1910	2,149	2	12	1,702	.....	433	.....	.....
	1911	2,310	2	11	1,839	.....	457	.....	1
Six plants.....	1911	2,487	2	11	1,959	.....	514	.....	1
	1912	2,694	.....	41	2,128	.....	525	.....	.....
Six plants.....	1912	2,739	.....	48	2,132	.....	552	.....	7
	1913	2,778	.....	16	2,095	54	611	2	.....
PER CENT.									
Five plants.....	1910	2,149	0.1	0.6	79.2	.....	20.1	.....	.....
	1911	2,310	.1	.5	79.6	.....	19.8	.....	(1)
Six plants.....	1911	2,487	.1	.4	78.8	.....	20.7	.....	(1)
	1912	2,694	.....	1.5	79.0	.....	19.5	.....	.....
Six plants.....	1912	2,739	.....	1.8	77.8	.....	20.2	.....	0.3
	1913	2,778	.....	.6	75.4	1.9	22.0	0.1	.....

¹ Less than one-tenth of 1 per cent.

In addition to the text tables in the summary, two general tables are presented for the tin-plate-mill department, as follows:

Table I.—Average full-time weekly earnings and average and classified rates of wages per hour, by years, 1910 to 1913.

Table II.—Average and classified full-time hours per week, by years, 1910 to 1913.

In Tables I and II, in addition to actual data, percentages computed therefrom are given. The data from these two tables are summarized in the text table on pages 312 to 314.

The order in which the occupations are given in Tables I and II, and in the table of relative numbers, follows that of the processes of manufacture.

“Identical plants,” as used in the tables of this report, are identical units of identical establishments, reporting the same occupations in each of two or more consecutive years. For a more extended explanation see page 17.

Descriptions of the occupations which appear in the tables of this report were given in Bulletin No. 151 of this Bureau, but have been omitted from the present report.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR, BY YEARS, 1910 TO 1913—TIN-PLATE MILLS.

[All the plants reported are in the Pittsburgh district. The figures for each group of years are for identical plants.]

NUMBER.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time weekly earn- ings.	Employees earning each classified rate of wages per hour.												
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.		
Rollers:																		
5 plants	1910	174	42.7	\$1.025	\$43.73									1	1	5	167	
	1911	189	42.7	1.103	47.05											1	188	
6 plants	1911	201	42.7	1.109	47.33											1	200	
	1912	229	42.7	1.097	46.82												229	
	1913	231	42.7	1.119	47.76												231	
Roughers:																		
5 plants	1910	174	42.7	.425	18.14							60	99	15				
	1911	184	42.7	.506	21.60								80	104				
6 plants	1911	196	42.7	.507	21.63								80	116				
	1912	216	42.7	.513	21.89							1	83	128	4			
	1913	214	42.7	.553	23.59								75	42	96	1		
Catchers:																		
5 plants	1910	174	42.7	.427	18.23			1	2	9	22	39	8	93				
	1911	186	42.7	.481	20.52					2	4	59	21	100				
6 plants	1911	198	42.7	.487	20.79					2	4	59	21	112				
	1912	239	42.7	.403	17.20					6	8	79	129	13	4			
	1913	238	42.7	.427	18.23						5	77	131	16	8	1		
Screw boys:																		
5 plants	1910	174	42.7	.308	13.15			1	2	26	29	116						
	1911	186	42.7	.342	14.61					0	35	144	1					
6 plants	1911	198	42.7	.345	14.72					6	35	156	1					
	1912	221	42.7	.352	15.03					1	42	86	92					
	1913	218	42.7	.373	15.91					1	36	80	101					
Doublers:																		
5 plants	1910	174	42.7	.632	26.97					1	1	8	24	29	23	88		
	1911	193	42.7	.698	29.80								5	26	80	82		
6 plants	1911	205	42.7	.706	30.13									5	26	80	94	
	1912	247	42.7	.677	28.90									14	66	28	139	
	1913	251	42.7	.699	29.81									10	25	64	152	
Doublers' help- ers:																		
5 plants	1910	174	42.7	.324	13.82							60	114					
	1911	179	42.7	.353	15.05								179					
6 plants	1911	191	42.7	.351	14.97								191					
	1912	193	42.7	.370	15.81							2	168	23				
	1913	190	42.7	.393	16.77								91	99				
Heaters:																		
5 plants	1910	174	42.7	.648	27.63					1	1	10	23	33	13	93		
	1911	203	42.7	.709	30.24									22	123	58		
6 plants	1911	215	42.7	.714	30.47										22	123	70	
	1912	314	42.7	.675	28.78										74	181	59	
	1913	312	42.7	.679	28.99										29	193	90	
Heaters' helpers:																		
4 plants	1910	165	42.7	.348	14.84								165					
	1911	154	42.7	.438	18.71								92	2	60			
5 plants	1911	166	42.7	.436	18.60								92	14	60			
	1912	109	42.7	.396	16.92								82	11	16			
	1913	103	42.7	.425	18.15								59	20	24			
Shearmen:																		
5 plants	1910	58	52.7	.497	25.68								14	12	32			
	1911	61	53.1	.548	28.50								4	25	2	30		
6 plants	1911	65	52.8	.555	28.72								4	25	2	34		
	1912	72	51.8	.573	29.00								12	18	11	3	28	
	1913	73	51.9	.606	30.66								8	21	2	12	30	

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR, BY YEARS, 1910 TO 1913—TIN-PLATE MILLS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earnings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Shearmen's helpers:																
2 plants.....	1910	25	61.8	\$0.118	\$7.31	120	5									
	1911	31	59.7	.118	7.02	230	1									
	1912	29	58.8	.123	7.18	22	5	2								
3 plants.....	1912	35	57.6	.136	7.71	22	5	3	1	4						
	1913	38	58.7	.165	9.51	12	11	7		7	1					
Openers, male:																
3 plants.....	1910	94	57.5	.221	12.72				19	75						
	1911	76	57.3	.262	15.02					19	57					
4 plants.....	1911	84	57.3	.266	15.24						65					
	1912	89	57.5	.298	17.12						35	54				
5 plants.....	1912	93	56.9	.296	16.86					1	37	55				
	1913	97	57.7	.310	17.89			2	4	2	16	73				
Openers, female:																
2 plants.....	1910	13	45.5	.244	11.08					9	4					
	1911	17	44.1	.231	10.22					17						
1 plant.....	1911	15	42.7	.230	9.81					15						
	1912	18	42.7	.209	8.93	7				6	5					
	1913	11	60.0	.198	11.89			2	3	6						
Tinners:																
4 plants.....	1910	224	42.9	.402	17.27					3	33	85	97	3	3	
	1911	262	43.0	.439	18.92						2	69	180	7	4	
5 plants.....	1911	233	43.0	.429	18.48						2	90	180	7	4	
	1912	294	43.4	.444	19.28						6	114	71	98	5	
	1913	296	42.9	.456	19.57						1	28	248	15	4	
Redippers:																
1 plant.....	1910	14	46.2	.570	26.56								2	7	5	
	1911	17	47.2	.619	29.32								1	6	9	1
	1912	10	55.0	.592	32.58								1	3	6	
	1913	13	46.6	.622	29.00							1	1	2	6	3
Risers:																
2 plants.....	1910	34	44.1	.262	11.51					17	10	7				
	1911	39	45.0	.279	12.51					18	6	15				
3 plants.....	1911	42	44.8	.275	12.30					21	6	15				
	1912	30	50.1	.239	11.98				4	16	7	3				
	1913	34	45.1	.279	12.59					8	20	6				
Branners:																
2 plants.....	1910	12	67.8	.170	11.52				12							
	1911	20	67.7	.170	11.50				20							
	1912	16	67.7	.170	11.51				16							
	1913	17	67.7	.195	13.20				17							
Assorters, male:																
1 plant.....	1911	2	55.0	.263	14.44						2					
	1912	2	55.0	.275	15.13						1	1				
Assorters, female:																
4 plants.....	1910	101	49.7	.128	6.41	493	8									
	1911	112	50.2	.138	6.97	103	3				6					
5 plants.....	1911	120	50.7	.138	7.03	111	3				6					
	1912	127	51.4	.145	7.39	88	1	34	4							
	1913	120	51.5	.163	8.37	104	1	104	3	2						

¹ Including 13 employees earning 10 and under 12 cents per hour.² Including 14 employees earning 10 and under 12 cents per hour.³ Including 10 employees earning 10 and under 12 cents per hour.⁴ Including 17 employees earning 10 and under 12 cents per hour.⁵ Including 5 employees earning 10 and under 12 cents per hour.⁶ Including 4 employees earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR, BY YEARS, 1910 TO 1913—TIN-PLATE MILLS—Continued.

NUMBER—Concluded.

Occupation, and number of plants.	Year.	Num- ber of em- ploy- ees.	Average full- time hours per week.	Average rate of wages per hour.	Average full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Laborers:																
4 plants.....	1910	191	60.6	\$0.165	\$9.97	.....	52	139	.....	.....	.....	.....	.....	.....	.....	.....
	1911	201	60.4	.163	9.84	6	62	133	.....	.....	.....	.....	.....	.....	.....	.....
5 plants.....	1911	238	61.0	.164	10.01	6	62	170	.....	.....	.....	.....	.....	.....	.....	.....
	1912	239	61.3	.169	10.37	.....	10	229	.....	.....	.....	.....	.....	.....	.....	.....
6 plants.....	1912	276	61.6	.167	10.32	.....	25	251	.....	.....	.....	.....	.....	.....	.....	.....
	1913	322	61.1	.190	11.63	.....	8	42	272	.....	.....	.....	.....	.....	.....	.....

PER CENT.

Rollers:																
5 plants.....	1910	174	42.7	\$1.025	\$43.73	.....	.....	.....	.....	.....	.....	.....	0.6	0.6	2.9	96.0
	1911	189	42.7	1.103	47.05	.....	.....	.....	.....	.....	.....	.....	.....	.....	.5	99.5
6 plants.....	1911	201	42.7	1.109	47.33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.5	99.5
	1912	229	42.7	1.097	46.82	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100.0
	1913	231	42.7	1.119	47.76	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	100.0
Roughers:																
5 plants.....	1910	174	42.7	.425	18.14	.....	.....	.....	.....	.....	34.5	56.9	8.6	.....	.....	.....
	1911	184	42.7	.506	21.60	.....	.....	.....	.....	.....	.....	43.5	56.5	.....	.....	.....
6 plants.....	1911	196	42.7	.507	21.63	.....	.....	.....	.....	.....	.....	40.8	59.1	.....	.....	.....
	1912	216	42.7	.513	21.89	.....	.....	.....	.....	.....	.....	.5	38.4	59.3	1.9	.....
	1913	214	42.7	.553	23.59	.....	.....	.....	.....	.....	.....	.....	35.0	19.6	44.9	.5
Catchers:																
5 plants.....	1910	174	42.7	.427	18.23	.....	0.6	1.1	5.2	12.6	22.4	4.6	53.4	.....	.....	.....
	1911	186	42.7	.481	20.52	.....	.....	.....	1.1	2.2	31.7	11.3	53.8	.....	.....	.....
6 plants.....	1911	198	42.7	.487	20.79	.....	.....	.....	1.0	2.0	29.8	10.6	56.6	.....	.....	.....
	1912	239	42.7	.403	17.20	.....	.....	.....	2.5	3.3	33.1	54.0	5.4	1.7	.....	.....
	1913	238	42.7	.427	18.23	.....	.....	.....	.....	2.1	32.4	55.0	6.7	3.4	.4	.....
Screw boys:																
5 plants.....	1910	174	42.7	.308	13.15	.....	.6	1.1	14.9	16.7	66.7	.....	.....	.....	.....	.....
	1911	186	42.7	.342	14.61	.....	.....	.....	3.2	18.8	77.4	.5	.....	.....	.....	.....
6 plants.....	1911	198	42.7	.345	14.72	.....	.....	.....	3.0	17.7	78.8	.5	.....	.....	.....	.....
	1912	221	42.7	.352	15.03	.....	.....	.....	.5	19.0	38.9	41.6	.....	.....	.....	.....
	1913	218	42.7	.373	15.91	.....	.....	.....	.5	16.5	36.7	46.3	.....	.....	.....	.....
Doublers:																
5 plants.....	1910	174	42.7	.632	26.97	.....	.....	.....	.6	.6	4.6	13.8	16.7	13.2	50.6	.....
	1911	193	42.7	.698	29.80	.....	.....	.....	.....	.....	.....	2.6	13.5	41.5	42.5	.....
6 plants.....	1911	205	42.7	.706	30.13	.....	.....	.....	.....	.....	.....	2.4	12.7	39.0	45.9	.....
	1912	247	42.7	.677	28.90	.....	.....	.....	.....	.....	.....	5.7	26.7	11.3	56.3	.....
	1913	251	42.7	.699	29.81	.....	.....	.....	.....	.....	.....	4.0	10.0	25.5	60.6	.....
Doublers' help- ers:																
5 plants.....	1910	174	42.7	.324	13.82	.....	.....	.....	.....	34.5	65.5	.....	.....	.....	.....	.....
	1911	179	42.7	.353	15.05	.....	.....	.....	.....	.....	100.0	.....	.....	.....	.....	.....
6 plants.....	1911	191	42.7	.351	14.97	.....	.....	.....	.....	.....	100.0	.....	.....	.....	.....	.....
	1912	193	42.7	.370	15.81	.....	.....	.....	.....	1.0	87.0	11.9	.....	.....	.....	.....
	1913	190	42.7	.393	16.77	.....	.....	.....	.....	.....	47.9	52.1	.....	.....	.....	.....
Heaters:																
5 plants.....	1910	174	42.7	.648	27.63	.....	.....	.....	.6	.6	5.7	13.2	19.0	7.5	53.4	.....
	1911	203	42.7	.709	30.24	.....	.....	.....	.....	.....	.....	.....	10.8	60.6	28.6	.....
6 plants.....	1911	215	42.7	.714	30.47	.....	.....	.....	.....	.....	.....	.....	10.2	57.2	32.6	.....
	1912	314	42.7	.675	28.78	.....	.....	.....	.....	.....	.....	.....	23.6	57.6	18.8	.....
	1913	312	42.7	.679	28.99	.....	.....	.....	.....	.....	.....	.....	9.3	61.9	28.8	.....

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR, BY YEARS, 1910 TO 1913—TIN-PLATE MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of em- ploy- ees.	Average full-time hours per week.	Average rate of wages per hour.	Average full-time weekly earn- ings.	Employees earning each classified rate of wages per hour.											
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.	
Heaters' help- ers:																	
4 plants.....	1910	165	42.7	\$0.348	\$14.84							100.0					
	1911	154	42.7	.438	18.71							59.7	1.3	38.9			
5 plants.....	1911	166	42.7	.436	18.60							55.4	8.4	36.1			
	1912	109	42.7	.396	16.92							75.2	10.1	14.7			
	1913	103	42.7	.425	18.15							57.3	19.4	23.3			
Shearmen:																	
5 plants.....	1910	58	52.7	.497	25.68							24.1	20.7	55.2			
	1911	61	53.1	.548	28.50							6.6	41.0	3.3	49.2		
6 plants.....	1911	65	52.8	.555	28.72							6.2	38.5	3.1	52.3		
	1912	72	51.8	.573	29.00							16.7	25.0	15.3	4.2	38.9	
	1913	73	51.9	.606	30.66							11.0	28.8	2.7	16.4	41.1	
Shearmen's helpers:																	
2 plants.....	1910	25	61.8	.118	7.31	80.0	20.0										
	1911	31	59.7	.118	7.02	96.8	3.2										
	1912	29	58.8	.123	7.18	75.9	17.2	6.9									
3 plants.....	1912	35	57.6	.136	7.71	62.9	14.3	8.6	2.9	11.4							
	1913	38	58.7	.165	9.51	31.6	28.9	18.4		18.4	2.6						
Openers, male:																	
3 plants.....	1910	94	57.5	.221	12.72				20.2	79.8							
	1911	76	57.3	.262	15.02					25.0	75.0						
4 plants.....	1911	84	57.3	.266	15.24					22.6	77.4						
	1912	89	57.5	.298	17.12						39.3	60.7					
5 plants.....	1912	93	56.9	.296	16.86					1.1	39.8	59.1					
	1913	97	57.7	.310	17.89			2.1	4.1	2.1	16.5	75.3					
Openers, female:																	
2 plants.....	1910	13	45.5	.244	11.08					69.2	30.8						
	1911	17	44.1	.231	10.22					100.0							
1 plant.....	1911	15	42.7	.230	9.81					100.0							
	1912	18	42.7	.209	8.93	33.9				33.3	27.8						
	1913	11	60.0	.198	11.89			18.2	27.3	54.5							
Tinners:																	
4 plants.....	1910	224	42.9	.402	17.27					1.3	14.7	37.9	43.3	1.3	1.3		
	1911	262	43.0	.439	18.92						.8	26.3	68.7	2.7	1.5		
5 plants.....	1911	283	43.0	.429	18.48						.7	31.8	63.6	2.5	1.4		
	1912	294	43.4	.444	19.28						2.0	38.8	24.1	33.3	1.7		
	1913	296	42.9	.456	19.57						.3	9.5	83.8	5.1	1.4		
Redippers:																	
1 plant.....	1910	14	46.2	.570	26.56									14.3	50.0	35.7	
	1911	17	47.2	.619	29.32									5.9	35.3	52.9	5.9
	1912	10	55.0	.592	32.58									10.0	30.0	60.0	
	1913	13	46.6	.622	29.00								7.7	7.7	15.4	16.2	23.1
Risers:																	
2 plants.....	1910	34	44.1	.262	11.51					50.0	29.4	20.6					
	1911	39	45.0	.279	12.51					46.2	15.4	38.5					
3 plants.....	1911	42	44.8	.275	12.30					50.0	14.3	35.7					
	1912	30	50.1	.239	11.98					53.3	23.3	10.0					
	1913	34	45.1	.279	12.59				13.3	23.5	58.8	17.6					
Branners:																	
2 plants.....	1910	12	67.8	.170	11.52												
	1911	20	67.7	.170	11.50			100.0									
	1912	16	67.7	.170	11.51			100.0									
	1913	17	67.7	.195	13.20			100.0									

¹ Including 52.0 per cent earning 10 and under 12 cents per hour.² Including 45.2 per cent earning 10 and under 12 cents per hour.³ Including 34.5 per cent earning 10 and under 12 cents per hour.⁴ Including 28.6 per cent earning 10 and under 12 cents per hour.

TABLE I.—AVERAGE FULL-TIME WEEKLY EARNINGS AND AVERAGE AND CLASSIFIED RATES OF WAGES PER HOUR, BY YEARS, 1910 TO 1913—TIN-PLATE MILLS—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Num- ber of em- ploy- ees.	Aver- age full- time hours per week.	Aver- age rate of wages per hour.	Aver- age full- time week- ly earn- ings.	Employees earning each classified rate of wages per hour.										
						12 and under 14 cts.	14 and under 16 cts.	16 and under 18 cts.	18 and under 20 cts.	20 and under 25 cts.	25 and under 30 cts.	30 and under 40 cts.	40 and under 50 cts.	50 and under 60 cts.	60 and under 70 cts.	70 cts. and over.
Assorters, male: 1 plant.....	1911	2	55.0	\$0.263	\$14.44						100.0					
	1912	2	55.0	.275	15.13						50.0	50.0				
Assorters, female: 4 plants.....	1910	101	49.7	.128	6.41	92.1	7.9									
	1911	112	50.2	.138	6.97	92.0	2.7			5.4						
5 plants.....	1911	120	50.7	.138	7.03	92.5	2.5			5.0						
	1912	127	51.4	.145	7.39	69.3	.8	26.8	3.1							
	1913	120	51.5	.163	8.37	48.3	.8	86.7	2.5	1.7						
Laborers: 4 plants.....	1910	191	60.6	.165	9.97		27.2	72.8								
	1911	201	60.4	.163	9.84	3.0	30.8	66.2								
5 plants.....	1911	238	61.0	.164	10.01	2.5	26.1	71.4								
	1912	239	61.3	.169	10.37		4.2	95.8								
6 plants.....	1912	276	61.6	.167	10.32		9.1	90.9								
	1913	322	61.1	.190	11.63		2.5	13.0	84.5							

¹ Including 16.8 per cent earning 10 and under 12 cents per hour.

² Including 4.5 per cent earning 10 and under 12 cents per hour.

³ Including 4.2 per cent earning 10 and under 12 cents per hour.

⁴ Including 3.3 per cent earning 10 and under 12 cents per hour.

TABLE II.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK, BY YEARS, 1910 TO 1913—TIN-PLATE MILLS.

NUMBER.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Rollers:											
5 plants.....	1910	174	42.7	174							
	1911	189	42.7	189							
6 plants.....	1911	201	42.7	201							
	1912	229	42.7	229							
	1913	231	42.7	231							
Roughers:											
5 plants.....	1910	174	42.7	174							
	1911	184	42.7	184							
6 plants.....	1911	196	42.7	196							
	1912	216	42.7	216							
	1913	214	42.7	214							
Catchers:											
5 plants.....	1910	174	42.7	174							
	1911	186	42.7	186							
6 plants.....	1911	198	42.7	198							
	1912	239	42.7	239							
	1913	238	42.7	238							
Screw boys:											
5 plants.....	1910	174	42.7	174							
	1911	186	42.7	186							
6 plants.....	1911	198	42.7	198							
	1912	221	42.7	221							
	1913	218	42.7	218							
Doublers:											
5 plants.....	1910	174	42.7	174							
	1911	193	42.7	193							
6 plants.....	1911	205	42.7	205							
	1912	247	42.7	247							
	1913	251	42.7	251							
Doublers' helpers:											
5 plants.....	1910	174	42.7	174							
	1911	179	42.7	179							
6 plants.....	1911	191	42.7	191							
	1912	193	42.7	193							
	1913	190	42.7	190							
Heaters:											
5 plants.....	1910	174	42.7	174							
	1911	203	42.7	203							
6 plants.....	1911	215	42.7	215							
	1912	314	42.7	314							
	1913	312	42.7	312							
Heaters' helpers:											
4 plants.....	1910	165	42.7	165							
	1911	154	42.7	154							
5 plants.....	1911	166	42.7	166							
	1912	109	42.7	109							
	1913	103	42.7	103							
Shearmen:											
5 plants.....	1910	58	52.7	31	7		20				
	1911	61	53.1	31	7		23				
6 plants.....	1911	65	52.8	35	7		23				
	1912	72	51.8	43	7		22				
	1913	73	51.9	43	7		22				
Shearmen's helpers:											
2 plants.....	1910	25	61.8				20	5			
	1911	31	59.7			8	23				
	1912	29	58.8		7		22				
3 plants.....	1912	35	57.6	5	7		22		1		
	1913	38	58.7	8			23	7			

TABLE II.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK BY YEARS, 1910 TO 1913—TIN-PLATE MILLS—Continued.

NUMBER—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Openers, male:											
3 plants.....	1910	94	57.5		15	79					
	1911	76	57.3		19	57					
4 plants.....	1911	84	57.3		19	65					
	1912	89	57.5		14	75					
5 plants.....	1912	93	56.9	4	14	75					
	1913	97	57.7		16	73	8				
Openers, female:											
2 plants.....	1910	13	45.5	10	3						
	1911	17	44.1	15	2						
1 plant.....	1911	15	42.7	15							
	1912	18	42.7	18							
	1913	11	60.0				11				
Tinners:											
4 plants.....	1910	224	42.9	220	4						
	1911	262	43.0	256	2	4					
5 plants.....	1911	283	43.0	277	2	4					
	1912	294	43.4	276	18						
	1913	296	42.9	296							
Redippers:											
1 plant.....	1910	14	46.2	10	4						
	1911	17	47.2	12	1	4					
	1912	10	55.0		10						
	1913	13	46.6	13							
Risers:											
2 plants.....	1910	34	44.1	30	4						
	1911	39	45.0	33	2	4					
3 plants.....	1911	42	44.8	36	2	4					
	1912	30	50.1	12	18						
	1913	34	45.1	34							
Branners:											
2 plants.....	1910	12	67.8					12			
	1911	20	67.7					20			
	1912	16	67.7					16			
	1913	17	67.7					17			
Assorters, male:											
1 plant.....	1911	2	55.0		2						
	1912	2	55.0		2						
Assorters, female:											
4 plants.....	1910	101	49.7	46	8	47					
	1911	112	50.2	46	9	57					
5 plants.....	1911	120	50.7	46	9	65					
	1912	127	51.4	47	5	75					
	1913	120	51.5	42	6	72					
Laborers:											
4 plants.....	1910	191	60.6			101	46	44			
	1911	201	60.4		9	79	73	38	2		
5 plants.....	1911	238	61.0		9	79	90	58	2		
	1912	239	61.3		1	83	97	56	1	1	
6 plants.....	1912	276	61.6			83	118	70	1	3	1
	1913	322	61.1			107	108	103	1	3	

PER CENT.

Rollers:											
5 plants.....	1910	174	42.7	100.0							
	1911	189	42.7	100.0							
6 plants.....	1911	201	42.7	100.0							
	1912	229	42.7	100.0							
	1913	231	42.7	100.0							

TABLE II.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK, BY YEARS, 1910 TO 1913—TIN-PLATE MILLS—Continued.

PER CENT—Continued.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Roughers:											
5 plants.....	1910	174	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1911	184	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
6 plants.....	1911	196	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1912	216	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1913	214	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
Catchers:											
5 plants.....	1910	174	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1911	186	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
6 plants.....	1911	198	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1912	239	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1913	238	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
Screw boys:											
5 plants.....	1910	174	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1911	186	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
6 plants.....	1911	198	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1912	221	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1913	218	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
Doublers:											
5 plants.....	1910	174	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1911	193	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
6 plants.....	1911	205	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1912	247	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1913	251	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
Doublers' helpers:											
5 plants.....	1910	174	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1911	179	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
6 plants.....	1911	191	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1912	193	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1913	190	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
Heaters:											
5 plants.....	1910	174	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1911	203	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
6 plants.....	1911	215	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1912	314	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1913	312	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
Heaters' helpers:											
4 plants.....	1910	165	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1911	154	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
5 plants.....	1911	166	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1912	109	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
	1913	103	42.7	100.0	.....	.....	.....	.....	.....	.....	.....
Shearmen:											
5 plants.....	1910	58	52.7	53.4	12.1	.....	34.5	.....	.....	.....	.....
	1911	61	53.1	50.8	11.5	.....	37.7	.....	.....	.....	.....
6 plants.....	1911	65	52.8	53.8	10.8	.....	35.4	.....	.....	.....	.....
	1912	72	51.8	59.7	9.7	.....	30.6	.....	.....	.....	.....
	1913	73	51.9	58.9	9.6	.....	31.5	.....	.....	.....	.....
Shearmen's helpers:											
2 plants.....	1910	25	61.8	.....	.....	.....	80.0	20.0	.....	.....	.....
	1911	31	59.7	.....	.....	.....	74.2	.....	.....	.....	.....
	1912	29	58.8	.....	24.1	.....	75.9	.....	.....	.....	.....
3 plants.....	1912	35	57.6	14.3	20.0	.....	62.9	.....	2.9	.....	.....
	1913	38	58.7	21.1	.....	.....	60.5	18.4	.....	.....	.....
Openers, male:											
3 plants.....	1910	94	57.5	.....	16.0	.....	84.0	.....	.....	.....	.....
	1911	76	57.3	.....	25.0	.....	75.0	.....	.....	.....	.....
4 plants.....	1911	84	57.3	.....	22.6	.....	77.4	.....	.....	.....	.....
	1912	89	57.5	.....	15.7	.....	84.3	.....	.....	.....	.....
5 plants.....	1912	93	56.9	4.3	15.1	80.6	.....	.....	.....	.....	.....
	1913	97	57.7	.....	16.5	75.3	8.2	.....	.....	.....	.....

TABLE II.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK, BY YEARS, 1910 TO 1913—TIN-PLATE MILLS—Concluded.

PER CENT—Concluded.

Occupation, and number of plants.	Year.	Number of employees.	Average full-time hours per week.	Employees whose full-time hours per week were—							
				48 and under.	Over 48 and under 56	56 and under 60	60	Over 60 and under 72	72	Over 72 and under 84	84
Openers, female:											
2 plants.....	1910	13	45.5	76.9	23.1						
	1911	17	44.1	88.2	11.8						
1 plant.....	1911	15	42.7	100.0							
	1912	18	42.7	100.0							
	1913	11	60.0				100.0				
Tinners:											
4 plants.....	1910	224	42.9	98.2	1.8						
	1911	262	43.0	97.7	.8	1.5					
5 plants.....	1911	283	43.0	97.9	.7	1.4					
	1912	294	43.4	93.9	6.1						
	1913	296	42.9	100.0							
Redippers:											
1 plant.....	1910	14	46.2	71.4	28.6						
	1911	17	47.2	70.6	5.9	23.5					
	1912	10	55.0		100.0						
	1913	13	46.6	100.0							
Risers:											
2 plants.....	1910	34	44.1	88.2	11.8						
	1911	39	45.0	84.6	5.1	10.3					
3 plants.....	1911	42	44.8	85.7	4.8	9.5					
	1912	30	50.1	40.0	60.0						
	1913	34	45.1	100.0							
Branners:											
2 plants.....	1910	12	67.8					100.0			
	1911	20	67.7					100.0			
	1912	16	67.7					100.0			
	1913	17	67.7					100.0			
Assorters, male:											
1 plant.....	1911	2	55.0		100.0						
	1912	2	55.0		100.0						
Assorters, female:											
4 plants.....	1910	101	49.7	45.5	7.9	46.5					
	1911	112	50.2	41.1	8.0	50.9					
5 plants.....	1911	120	50.7	38.3	7.5	54.2					
	1912	127	51.4	37.0	3.9	59.1					
	1913	120	51.5	35.0	5.0	60.0					
Laborers:											
4 plants.....	1910	191	60.6			52.9	24.1	23.0			
	1911	201	60.4		4.5	39.3	36.3	18.9	1.0		
5 plants.....	1911	238	61.0		3.8	33.2	37.8	24.4	.8		
	1912	239	61.3		.4	34.7	40.6	23.4	.4	0.4	
6 plants.....	1912	276	61.6			30.1	42.8	25.4	.4	1.1	0.4
	1913	322	61.1			33.2	33.5	32.0	.3	.9	