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## This Issue in Brief

*The 5-day week is not as uncommon in American industry as the current discussion of the subject would suggest. Thus, in the men's clothing industry 45 per cent of the establishments covered by the Bureau of Labor Statistics' survey were working on a 5-day week schedule. Among several of the building trades the 5-day week is fairly well established. In foundries and machine shops, about 3.5 per cent of those covered by the bureau's studies had a 5-day week. Even in the iron and steel industry, the 5-day, or 5-turn, week exists for certain workers. An article on page 1 brings together all the information available to the bureau regarding the prevalence of the 5-day week.*

*The public market system of Norfolk, Va., includes a modern and extremely well-equipped market building, and a system of outside or farmers' markets. Originally, the public market was essentially a place where producer and consumer came together. In modern cities, however, the trend has been for the central markets to be more in the nature of an aggregation of retail dealers, who buy their products from wholesale dealers. Page 17.*

*The productivity of labor in the manufacture of rubber tires has increased at a very rapid rate during the last 10 years, as is shown by the fact that the output of the workers per man-hour in this industry in 1925 was over three times that in 1914. This great increase in output per worker can be partly explained by the rapid growth of the industry, since the total output of rubber tires in 1925 exceeded the output in 1914 nearly six times. Page 28.*

*A revised index of productivity for the iron and steel industry shows that the output per man-hour in the industry as a whole increased about 60 per cent between 1914 and 1925, and in the latter year it was nearly three times the output per man-hour in 1899. The construction of separate productivity indexes for blast furnaces and for steel works and rolling mills brings to light considerable difference between these two branches of the industry. The output per man-hour in blast-furnace work nearly doubled from 1899 to 1909, and then almost doubled again between 1909 and 1923; the trend upward was fairly constant. In steel works and rolling mills, however, the increase in productivity is somewhat smaller—about two and one-half times greater in 1925 than in 1899—and the development has not been at all regular. Page 28.*

*Accident rates in the iron and steel industry declined from 1924 to 1925. This decline has been almost continuous for the last 16 years. In the plants where safety work has been emphasized the reduction in accident frequency since 1913 has been about 86 per cent, as compared with only 15 per cent in plants where safety work has not been so marked. Page 50.*

*The fatal accident rate in the United States is very much larger than the rates in other countries of the world. In 1924, in the registration States alone there were 76.2 fatal accidents per 100,000 population, while in England and Wales, for instance, the rate was only 34.1, in Scotland 45.2, and in Australia 48. Page 65.*

*A workmen's compensation law* has at last, by referendum, been adopted in Missouri, thus ending the struggle for such legislation, begun in 1910. Page 72.

*The fifth congress of the Cooperative League of America* was held in Minneapolis, November 4-6, 1926. An account of the congress is given on page 83.

*The recent convention of the American Federation of Labor* condemned the company union, favored a progressive shortening of the hours of labor, declared for an organization campaign in the automobile industry, indorsed union-management cooperation, and cautioned workers against employee stock ownership plans. Page 91.

*Minimum wage standards* are generally accepted by the employers in Massachusetts, in spite of the fact that compliance is dependent upon the pressure of public opinion. This is shown by the report of the division of minimum wage of the Massachusetts Department of Labor and Industries reviewed on page 47.

*The average wholesale price of cotton* has just completed a cycle which beginning at 12.8 cents per pound in 1913 has after many fluctuations returned to the same price in November, 1926. Data and a chart showing the relation between the price of cotton and the production and consumption of cotton, the number of spindles in place and in active operation, and population are given on page 215.

*Wage rates for common labor* on October 1, 1926, ranged from 15 cents to \$1.125 per hour. The highest rates in most districts were paid by general contractors. The average rate for all industries was 43.4 cents. Page 144.

*Wages in English and German pottery industries*, for certain occupations, are shown on pages 114 and 129. The data were obtained by a representative of the Bureau of Labor Statistics.

*The British coal-mining dispute*, after about seven months' duration, is being terminated without formal settlement. The miners in certain sections have returned to work with only local agreements, but in other sections it is expected that mining may be tied up for weeks longer. A résumé of the struggle is given on page 37.

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## Prevalence of the 5-Day Week in American Industry

**T**HE recent announcement by Mr. Henry Ford regarding the establishment of the 5-day week in the enterprises with which he is associated has aroused considerable interest as to the extent to which the 5-day week is at present in operation as a regular working practice.

No general survey of the subject has ever been made, but considerable information thereon is available in the material obtained by the Bureau of Labor Statistics in its recent surveys of wages and hours of labor in various industries, in its studies of collective agreements among the organized trades, and in various items from trade journals, etc. An analysis of this material has been made with the following results:

### Summary

**O**F THE larger industries in the country, the regular full-time 5-day week is most prevalent in the manufacture of men's clothing. Here, according to the recent study by the Bureau of Labor Statistics, no less than 45 per cent of the establishments covered, and almost one-third of the employees, were working a 5-day week. The 40-hour week, however, was not common, the average hours being 44.3 per week.

The 5-day week has also made considerable progress in recent years in certain other branches of the clothing trades. Thus, under recent agreements, most of the fur workers (an industry employing about 14,000 persons) are working on a 5-day 40-hour week basis, but with provision for some Saturday work in the busy fall season. Similarly, the organized workers in the cloth hat and cap industry in New York and Philadelphia have agreements calling for a 5-day 44-hour week, to be reduced to a flat 40-hour week in 1927. The organized cloak, skirt, and dressmakers, of Boston; waterproof garment workers, cutters, pressers, and buttonhole makers of New York; the cloak, skirt, dress, and reefer makers' unions of New York; and the ladies' tailors and custom dressmakers' local, also of New York—all have the 5-day week and in most cases the flat 40-hour week.

Among some of the building trades the 5-day week is fairly well established, more than 6 per cent of the union membership in all the trades covered by the bureau's 1926 study working on a flat 5-day week basis, the trades most affected thereby being lathers, painters, and plasterers. In addition, the 5-day week for part of the year occurs not infrequently among the granite and stone trades.

In the printing and publishing of newspapers, especially those in foreign languages, a working week of 40 hours or less, but worked variously in five or six days, is quite frequent. In total, about 5

per cent of all the newspaper printing trades covered by the bureau's 1926 study were found to be on a working basis of not over 40 hours a week. In the book and job branch of the printing industry, the 5-day 40-hour-or-less week was infrequent, but was found to occur in a few cities.

Other organized trades covered by the bureau's recent study in which the 5-day week existed to a greater or less extent were: Bakers, 1.4 per cent of those covered by the study, and laundry workers, 7.8 per cent of those covered by the study.

In the large manufacturing industries covered by the regular wages and hours surveys of the bureau the 5-day week as a regular working practice was found, to a greater or less extent, in the paper box-board industry, in foundries and machine shops, and in the iron and steel industry. In the paper box-board industry the bureau's study made in the spring of 1925 found that in 60 per cent of the establishments, employing about two-thirds of the total working force canvassed, the productive forces were working on a regular 5-day-week basis.

In the foundries and machine shops covered by the bureau's study 3.8 per cent of the plants, employing 3.5 per cent of the working force, had a regular 5-day week. In addition, about 1 per cent of the plants and employees covered alternated between a 5-day week and a full 6-day week as the prevailing working basis for the majority of the employees. The actual weekly hours were usually in excess of 40, although a few plants limited their working time to a flat 5-day 40-hour week.

The iron and steel industry as a whole still has many employees on rather long hours, but the 5-day week exists in certain occupations in certain plants. Thus, the 1926 survey by the bureau found that 2.1 per cent of all the employees covered worked a regular 5-day or 5-night week. Most of the 5-turn workers were in the bar mills (13 per cent of the total employees therein) and in the puddling mills (6 per cent of the total employees therein).

In addition to the adoption of the 5-day week as a regular practice in certain industrial establishments, as described above, there has been, of recent years, a significant extension of the practice of Saturday closing in the summer months. The practice is most extensive in retail stores and offices, but is known to exist also in other lines of business, although no very satisfactory data are available on this subject.

Other instances of the 5-day week of which the bureau has record are more or less isolated. The following pages include references to these as well as giving in somewhat greater detail the data upon which the above summary is based.

#### Bakeries, Building Trades, Laundries, and Printing and Publishing

**T**HE Bureau of Labor Statistics makes an annual survey of wage rates and hours among organized wage earners in various industrial communities. The study is limited to trades in which payment is by time rates or, if by piece rates, by some simple measure such as "ems" in the case of printers. Organized trades working on a more or less complicated piecework system are omitted from the annual survey.

The 1926 survey covered 66 cities and 824,313 union members, for 764,596 of whom regular working hours were obtainable, the street railway employees having such variable hours of labor that they were not included in the tabulations on this point. The trades covered were: Bakery; building; chauffeurs, teamsters, and drivers; granite and stone; laundry workers; linemen; longshoremen; printing and publishing—book and job, and newspaper.

Of the total of 764,596 members it was found that 35,689, or 4.7 per cent, had a regular working week of only 5 days during the whole year; 3,670, or 0.5 per cent, had a regular working week of 5 days for a part of the year; and 1,063, or 0.2 per cent, had a schedule which called for 6 days but not over 40 hours per week. In the aggregate, therefore, there were 40,422, or 5.3 per cent of the total, who worked 5 days or 40 hours or less per week for the whole or a part of the year.

Table 1 shows the percentage of the total membership of each trade group, so far as canvassed, falling into each of three classes: (1) Working 5 days per week the whole year, (2) working 5 days part of the year, and (3) working 6 days but 40 hours or less per week. For each of these three classifications Table 2 gives in detail, by city and trade, for each union working on the 5-day or 40-hour-or-less week basis, the exact hours worked on Monday to Friday, on Saturday, and on Sunday.

TABLE 1.—PER CENT OF TRADE-UNION MEMBERS WORKING A 5-DAY OR 40-HOUR-OR-LESS WEEK, BY TRADE GROUPS

Trade group	Per cent of total number reported in each trade group working—		
	5 days per week whole of year	5 days per week part of year	6 days but 40 hours or less per week
<b>Bakers:</b>			
Working 40 hours or less	1.4		
Working over 40 hours			
Total	1.4		
<b>Building trades:</b>			
Working 40 hours or less	6.6	0.6	
Working over 40 hours			
Total	6.6	.6	
<b>Granite and stone trades:</b>			
Working 40 hours or less	1.0	5.9	
Working over 40 hours			
Total	1.0	5.9	
<b>Laundry workers:</b>			
Working 40 hours or less			
Working over 40 hours	7.8		
Total	7.8		
<b>Printing and publishing, book and job:</b>			
Working 40 hours or less	.1		0.1
Working over 40 hours	(1)		
Total	.1		.1
<b>Printing and publishing, newspaper:</b>			
Working 40 hours or less	1.0		4.9
Working over 40 hours			
Total	1.0		4.9

<sup>1</sup> Less than one-tenth of 1 per cent.

TABLE 2.—UNION TRADES IN WHICH THE 5-DAY WEEK OR 40-HOUR-OR-LESS WEEK PREVAIL

City and trade	Hours of unions working—								
	5 days per week whole of year			5 days per week part of year			6 days but 40 hours or less per week		
	Monday to Friday	Saturday	Sunday	Monday to Friday	Saturday	Sunday	Monday to Friday	Saturday	Sunday
<i>Bakers</i>									
Bench men: Brooklyn, N. Y.	7½	0	0						
Oven men: Brooklyn, N. Y.	7½	0	0						
<i>Building trades</i>									
Asbestos workers: Seattle, Wash.	8	0	0						
Bricklayers: Philadelphia, Pa.				8	(1)	0			
Bricklayers, sewer, tunnel, and caisson: Philadelphia, Pa.				8	(1)	0			
Carpenters—parquetry floor layers:									
Portland, Oreg.	8	0	0						
Seattle, Wash.	8	0	0						
Cement finishers: Portland, Oreg.	8	0	0						
Inside wiremen:									
Philadelphia, Pa.				8	(2)	0			
Portland, Oreg.	8	0	0						
Seattle, Wash.	8	0	0						
Inside wiremen, fixture hangers: Portland, Oreg.	8	0	0						
Lathers:									
Boston, Mass.	8	0	0						
Buffalo, N. Y.	8	0	0						
Columbus, Ohio.	8	0	0						
Pittsburgh, Pa.	8	0	0						
Seattle, Wash.	8	0	0						
Marble setters: Philadelphia, Pa.				8	(2)	0			
Painters:									
Boston, Mass.	8	0	0						
Bridgeport, Conn.	8	0	0						
Newark, N. J.	8	0	0						
New York, N. Y.	8	0	0						
Portland, Oreg.	8	0	0						
Scranton, Pa.	8	0	0						
Seattle, Wash.	8	0	0						
Springfield, Mass.				8	(3)	0			
Painters, fresco:									
Boston, Mass.	8	0	0						
New York, N. Y.	8	0	0						
Portland, Oreg.	8	0	0						
Painters, sign:									
Chicago, Ill.	8	0	0						
Philadelphia, Pa.	8	0	0						
Plasterers:									
Boston, Mass.	8	0	0						
Buffalo, N. Y.	8	0	0						
Columbus, Ohio.	8	0	0						
New York, N. Y.	8	0	0						
Philadelphia, Pa.	8	0	0						
Pittsburgh, Pa.	8	0	0						
Portland, Oreg.	8	0	0						
Providence, R. I.	8	0	0						
Seattle, Wash.	8	0	0						
Plasterers, laborers:									
Boston, Mass.	8	0	0						
New York, N. Y.	8	0	0						
Portland, Oreg.	8	0	0						
Seattle, Wash.	8	0	0						
Plumbers and gas fitters: Portland, Oreg.	8	0	0						
Steam and sprinkler fitters: Portland, Oreg.	8	0	0						
Steam fitters: Seattle, Wash.	8	0	0						
Steam and sprinkler fitters, helpers:									
Portland, Oreg.	8	0	0						
Seattle, Wash.	8	0	0						

<sup>1</sup> Four hours October to May, inclusive.

<sup>2</sup> Four hours September to May, inclusive.

<sup>3</sup> Four hours March to November, inclusive.

TABLE 2.—UNION TRADES IN WHICH THE 5-DAY WEEK OR 40-HOUR-OR-LESS WEEK PREVAIL—Continued

City and trade	Hours of unions working—								
	5 days per week whole of year			5 days per week part of year			6 days but 40 hours or less per week		
	Monday to Friday	Saturday	Sunday	Monday to Friday	Saturday	Sunday	Monday to Friday	Saturday	Sunday
<i>Granite and stone trades</i>									
Granite cutters:									
Bridgeport, Conn.				8	(4)	0			
Buffalo, N. Y.				8	(4)	0			
Chicago, Ill.				8	(4)	0			
Cincinnati, Ohio				8	(4)	0			
Granite cutters:									
Cleveland, Ohio				8	(4)	0			
Dallas, Tex.				8	(4)	0			
Des Moines, Iowa				8	(4)	0			
Fall River, Mass.				8	(4)	0			
Newark, N. J.	8	0	0						
Providence, R. I.				8	(4)	0			
Toledo, Ohio				8	(4)	0			
<i>Laundry workers</i>									
Shirt ironers (women): Detroit, Mich.									
	9	9	0						
<i>Printing and publishing: Book and job</i>									
Compositors:									
New York, N. Y. (German)	8	0	0						
Philadelphia, Pa. (German)	8	0	0						
Machine operators:									
Chicago, Ill. (Polish)							6½	6½	0
New York, N. Y. (German)	8	0	0						
Philadelphia, Pa. (German)	8	0	0						
Pressmen, cylinder:									
Philadelphia, Pa. (2 flat-bed presses)	9½	0	0						
<i>Printing and publishing: Newspaper</i>									
Compositors, daywork:									
Chicago, Ill. (Bohemian)							6	6	0
Chicago, Ill. (German)	7 8	7 8	7 8						
Chicago, Ill. (Hebrew)							6	6	0
Cincinnati, Ohio (German)	8	0	0						
Detroit, Mich. (German)	7 8	7 8	7 8						
Newark, N. J. (German)	7 7½	7 7½	7 7½				7	3½	0
New York, N. Y. (Bohemian)									
New York, N. Y. (German)	7 7½	7 7½	7 7½				6	6	0
New York, N. Y. (Hebrew)							7	4½	0
New York, N. Y. (Hellenic)							6	6	0
New York, N. Y. (Hungarian)									
Compositors, nightwork:									
Chicago, Ill. (Hebrew)							4½	4½	0
Newark, N. J. (German)	8 7½	8 7½	8 7½						
New York, N. Y. (German)	8 7½	8 7½	8 7½						
New York, N. Y. (Hebrew)							4½	4½	0
New York, N. Y. (Italian)							6½	6½	0
Philadelphia, Pa. (German)	8	8	8						
Philadelphia, Pa. (Hebrew)							6	6	0
Machine operators, daywork:									
Chicago, Ill. (Bohemian)							6	6	0
Chicago, Ill. (German)	7 8	7 8	7 8						
Chicago, Ill. (Hebrew)							6	6	0
Cincinnati, Ohio (German)	8	0	0						
Dallas, Tex.							6	6	0
Detroit, Mich. (German)	7 8	7 8	7 8						
Newark, N. J. (German)	7 7½	7 7½	7 7½						
New York, N. Y. (Bohemian)							7	3½	0
New York, N. Y. (German)	7 7½	7 7½	7 7½						
New York, N. Y. (Hebrew)							6	6	0
New York, N. Y. (Hellenic)							7	4½	0

<sup>4</sup> Four hours April to October, inclusive.

<sup>5</sup> Four hours March 16 to October 15.

<sup>6</sup> Do not work on Mondays.

<sup>7</sup> Two days off per week, irregular.

<sup>8</sup> Two nights off per week, irregular.

TABLE 2.—UNION TRADES IN WHICH THE 5-DAY WEEK OR 40-HOUR-OR-LESS WEEK PREVAIL—Continued

City and trade	Hours of unions working—								
	5 days per week whole of year			5 days per week part of year			6 days but 40 hours or less per week		
	Monday to Friday	Saturday	Sunday	Monday to Friday	Saturday	Sunday	Monday to Friday	Saturday	Sunday
<i>Printing and publishing: Newspaper—Con.</i>									
Machine operators, daywork—Continued									
New York, N. Y. (Hungarian).....							6	6	0
Philadelphia, Pa. (German).....	8	0	0				6	6	0
Philadelphia, Pa. (Hebrew).....							6½	6½	0
Providence, R. I. ....							6½	6½	0
Machine operators, nightwork:									
Chicago, Ill. (Hebrew).....							4½	4½	0
Dallas, Tex. ....							6	6	0
Newark, N. J. (German).....	8 7½	8 7½	8 7½						
New York, N. Y. (German).....	8 7½	8 7½	8 7½						
New York, N. Y. (Hebrew).....							4½	4½	0
New York, N. Y. (Hellenic).....							6½	3½	0
New York, N. Y. (Hungarian).....							6	6	0
New York, N. Y. (Italian).....							6½	6½	0
Philadelphia, Pa. (German).....	8 8	8 8	8 8				6	6	0
Philadelphia, Pa. (Hebrew).....							6	6	0
Providence, R. I. ....							6½	6½	0
St. Louis, Mo. (German).....	8 7½	10	0						
Machine tenders (machinists), daywork:									
Chicago, Ill. (Hebrew).....							6	6	0
Machine tenders (machinists), nightwork:									
Philadelphia, Pa. (Hebrew).....							6	6	0
Machinist operators, daywork: Chicago, Ill. (Bohemian).....									
							6	6	0
Photo-engravers, nightwork:									
Baltimore, Md. ....							6½	6½	0
Dallas, Tex. ....							6½	6½	0
Des Moines, Iowa (first shift).....							7	5	0
Des Moines, Iowa (second shift).....							( <sup>a</sup> )	( <sup>a</sup> )	( <sup>a</sup> )
Milwaukee, Wis. ....							6½	6½	0
Newark, N. J. ....							6½	6½	0
New York, N. Y. ....							6½	6½	0
Richmond, Va. ....							6½	6½	0
Rochester, N. Y. ....							6½	6½	0
Washington, D. C. ....							6½	6½	0
Pressmen, web, nightwork:									
Boston, Mass. ....							6	6	0
Bridgeport, Conn. ....							6	6	0
Newark, N. J. ....							6	8	0
Philadelphia, Pa. ....							6	8	0
Stereotypers, nightwork:									
Boston, Mass. ....							6	6	0
Bridgeport, Conn. ....							6	6	0
Chicago, Ill. (shops B).....							6	6	0
Jacksonville, Fla. ....							6	9	0
Newark, N. J. ....							6	6	0
New Haven, Conn. ....							6	6	0
New York, N. Y. ....							6	8	0

<sup>a</sup> Do not work on Mondays.<sup>b</sup> Two nights off per week, irregular.<sup>c</sup> Hours vary but total 36 per week.

The detailed figures in Table 2 indicate that the straight 5-day week is most frequent among the building trades, especially the painters and plasterers. Among the granite and stone trades the short work week is rather frequent for part of the year, but with the provision that 4 hours on Saturday may be worked from March or April to October. The laundry union, reported as having a 5-day week, has a 9-hour day, and the day off is Monday instead of Saturday as in most of the trades. The short week in the printing and



### Iron and Steel Industry

ALTHOUGH the iron and steel industry operates continuously and still has many employees on rather long shifts, the 5-day week exists in certain employments in certain mills. Thus, the 1926 survey of wages and hours by the Bureau of Labor Statistics in the iron and steel industry showed that 2.1 per cent of all the employees covered worked only 5 working turns a week, about one-half working solely on the day turn and the other half working either on the night turn or on alternating night and day turns. Most of the 5-day workers were in the bar mills, where 13 per cent of the total employees worked a 5-turn week, and in the puddling mills, where 6 per cent of all the employees worked a 5-turn week.

### Paper Box-Board Industry

IN THE spring of 1925 the Bureau of Labor Statistics made a study of hours and wages in the paper box-board industry. The study covered 70 establishments, which employed almost 10,000 employees. In 42 of these 70 plants, or 60 per cent, the productive employees worked a 5-day week. These 42 plants employed a total of 6,721, or about two-thirds of all employees covered. At the time of this study the paper box-board industry was in a period of transition as regards the matter of the length of the working week.

### Foundries and Machine Shops

THE 1925 survey made by the bureau of wages and hours in foundries and machine shops covered 413 foundries with 40,393 workers and 511 machine shops with 86,274 workers. Analysis of the data obtained shows that the 5-day week for the majority of the employees prevailed in 35 of the 924 foundries and machine shops combined, or 3.8 per cent; the number of employees working in establishments where the 5-day week prevailed was 4,417, or 3.5 per cent of the total number of employees in the plants covered. In addition, 9 plants with 1,082 employees (or 0.9 per cent of the total employees covered), alternated between a 5-day and a 6-day week, this practice growing out of arrangements by which one full day Saturday every other week is preferred to a half day every Saturday.

### Other Trades and Industries

IN THE other industries covered by the Bureau of Labor Statistics periodic surveys of hours of labor, wages, and earnings, the regular full-time 5-day or 40-hour week was either not reported at all or was reported only in such exceptional cases as to be of negligible importance. These industries were: Lumber, pottery, coal and metal mining, woolen and worsted, hosiery and underwear, slaughtering and meat packing, cotton goods, paper and pulp, and automobiles.

*Other clothing trades.*—In various branches of the clothing trades, other than men's clothing, the 5-day week has made considerable progress of recent years, as indicated by the collective agreements in force. Although the bureau does not have a complete file of these agreements, the following summary of those available is of interest:

*Fur workers* in organized shops in New York, Chicago, Boston, and several other cities are now working under agreements which call for the 5-day 40-hour week for the greater part of the year, provision being made for some Saturday work in the rush fall season. The proportion of employees in the industry covered by this arrangement is not available but is known to be very large.

*Cloth hat and cap industry.*—Workers in organized shops in this industry have the 5-day 44-hour week in New York and Philadelphia, the hours to be reduced to 40, beginning July 1, 1927.

*Cloak, skirt, and dress makers* of Boston in organized shops have a 5-day 42-hour week.

*Waterproof workers, cutters, pressers, and buttonhole makers,* in the organized shops of New York City have a 5-day 40-hour week.

*Cloak, skirt, dress, and reefer makers* in the organized shops of New York City have a 5-day 40-hour week.

*Ladies' Tailors and Custom Dressmakers,* Local No. 38 of the International Ladies' Garment Workers' Union, New York City, have recently obtained the 40-hour week, according to the union journal.

#### Optional 5-Day Week

SOME agreements provide for a regular week of more than 40 hours, divided into 5 working-days, but permit modification under certain conditions. Thus, the agreement between the cut sole workers' local of the Shoe Workers' Protective Union and certain employers of Haverhill, Mass., fixes a regular 5-day 45-hour week, but authorizes the agent of the local union to permit overtime at the regular rate if he deems overtime work necessary, and provides that any dispute on this point may be arbitrated.

#### Five-Day Week Without Reduction in Total Hours

ANOTHER type of 5-day week is that where, by arrangement between the employees and management of an establishment, the old hours per week are retained but are spread over 5 days instead of 6, thus making Saturday a holiday. There is here no question of a shortened work week, but simply of a rearrangement of working hours so as to give two consecutive free days each week end. An example of this type is referred to in the *Railway Age* of October 23, 1926 (p. 786).

The shop of Jenkins Bros., valve manufacturers, Bridgeport, Conn., has worked a 5-day week, as recently discussed by Henry Ford, since May 22, 1922. The plant employs about 700 men. Both proprietors and employees are said to be enthusiastic in praise of the arrangement. The employees work 48 hours a week, the same as they did when the week was spread over 6 days, but they have all day Saturday, as well as Sunday, to themselves. The usual schedule is 9½ hours a day for four days and 10 hours on the fifth day. The plan, having been under discussion for some time, was finally submitted to a vote of the employees in the month above named, and the favorable vote was almost unanimous.

#### The 5-Day Week in Summer

IN A large number of business concerns the 5-day week for two or three summer months has become customary. The practice is probably most extensive among retail stores and offices, but exists in other

lines of business. A report of the Merchants' Association of New York on "Holiday practices of offices, stores, and factories in New York City," published in 1925, reports one or more instances of regular Saturday closing in summer among manufacturing concerns, printing and publishing, a railroad office and a railroad shop, and retail stores in the city of New York.

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### The 5-Day Week in the Ford Plants

**M**R. HENRY FORD'S statement of his reasons for instituting the 5-day week in the various Ford plants is set forth as follows in an authorized interview by Mr. Samuel Crowthers appearing in the *World's Work* for October, 1926:

"We have," Mr. Ford said, "decided upon and at once put into effect through all the branches of our industries the 5-day week. Hereafter there will be no more work with us on Saturdays and Sundays. These will be free days, but the men, according to merit, will receive the same pay equivalent as for a full 6-day week. A day will continue to be 8 hours, with no overtime.

"For the present this will not apply to the railroad, and of course it can not apply to watchmen or the men on certain jobs where the processes must be continuous. Some of these men will have to work Saturdays and Sundays, but they constitute less than 1 per cent of our working force, and each of them will have two consecutive days off some time during the week. In short, we have changed our calendar and now count a week as 5 days, or 40 hours.

"The actual work week of the factories as distinguished from the work week of the men will also be cut to 5 days. For, of course, an 8-hour man-day is not the same as an 8-hour factory-day. In order to make the full use of our plants we shall as before work the men in shifts. We found long ago, however, that it does not pay to put men at work, excepting in continuous operations, from midnight until morning. As a part of low-cost production—and only low-cost production can pay high wages—one must have a big investment in machinery and power plants. Expensive tools can not remain idle. They ought to work 24 hours a day, but here the human element comes in, for although many men like to work all night and have part of their day free, they do not work so well, and hence it is not economical, or at least that is our experience, to go through the full 24 hours. But a modern factory has to work more than 8 hours a day. It can not be idle two-thirds of the time, else it will be costly.

"This decision to put into effect the short work week is not sudden. We have been going toward it for three or four years. We have been feeling our way. We have during much of this time operated on a 5-day basis. But we have paid only for 5 days and not for 6. And whenever a department was especially rushed it went back to 6 days—to 48 hours. Now we know from our experience in changing from 6 to 5 days and back again that we can get at least as great production in 5 days as we can in 6, and we shall probably get a

greater, for the pressure will bring better methods. A full week's wage for a short week's work will pay.

"Does this mean," I asked, "that your present minimum wage of \$6 a day will become a fraction over \$7 a day—that is, the minimum for 5 days' work will still be \$36, just as it was for 6 days?"

"We are now working out the wage schedules," answered Mr. Ford. "We have stopped thinking in terms of a minimum wage. That belongs to yesterday, before we quite knew what paying high wages meant. Now so few people get the minimum wage that we do not bother about it at all. We try to pay a man what he is worth, and we are not inclined to keep a man who is not worth more than the minimum wage.

"The country is ready for the 5-day week. It is bound to come through all industry. In adopting it ourselves, we are putting it into effect in about 50 industries, for we are coal miners, iron miners, lumbermen, and so on. The short week is bound to come, because without it the country will not be able to absorb its production and stay prosperous.

"The harder we crowd business for time the more efficient it becomes. The more well-paid leisure workmen get the greater become their wants. These wants soon become needs. Well-managed business pays high wages and sells at low prices. Its workmen have the leisure to enjoy life and the wherewithal with which to finance that enjoyment.

"The industry of this country could not long exist if factories generally went back to the 10-hour day, because the people would not have the time to consume the goods produced. For instance, a workman would have little use for an automobile if he had to be in the shops from dawn until dusk. And that would react in countless directions, for the automobile, by enabling people to get about quickly and easily, gives them a chance to find out what is going on in the world—which leads them to a larger life that requires more food, more and better goods, more books, more music—more of everything. The benefits of travel are not confined to those who can take an expensive foreign trip. There is more to learn in this country than there is abroad.

"Just as the 8-hour day opened our way to prosperity, so the 5-day week will open our way to a still greater prosperity.

"Of course, there is a humanitarian side to the shorter day and the shorter week, but dwelling on that side is likely to get one into trouble, for then leisure may be put before work instead of after work—where it belongs. Twenty years ago, introducing the 8-hour day generally would have made for poverty and not for wealth. Five years ago, introducing the 5-day week would have had the same result. The hours of labor are regulated by the organization of work and by nothing else. It is the rise of the great corporation with its ability to use power, to use accurately designed machinery, and generally to lessen the wastes in time, material, and human energy that made it possible to bring in the 8-hour day. Then, also, there is the saving through accurate workmanship. Unless parts are all made accurately, the benefits of quantity production will be lost—for the parts will not fit together and the economy of making will be lost in the assembling. Further progress along the

same lines has made it possible to bring in the 5-day week. The progression has been a natural one.

"The 8-hour day law to-day only confirms what industry had already discovered. If it were otherwise, then the law would make for poverty instead of for wealth. A man can not be paid a wage in excess of his production. In the old days, before we had management and power, a man had to work through a long day in order to get a bare living. Now the long day would retard both production and consumption. At the present time the fixing by law of a 5-day week would be unwise, because all industry is not ready for it, but a great part of industry is ready, and within a comparatively short time I believe the practice will be so general in industry that it can be made universal.

"It is high time to rid ourselves of the notion that leisure for workmen is either 'lost time' or a class privilege.

"Nature fixed the first limits of labor, need the next, man's inhumanity to man had something to do with it for a long time, but now we may say that economic law will finish the job.

"Old-fashioned employers used to object to the number of holidays in this country. They said that people only abused leisure and would be better off without so much of it.

"Only lately a French professor accounted for the increased consumption of alcohol by pointing to the 8-hour day, which he denounced as a device which gives workingmen more time to drink.

"It will be generally granted that if men are to drink their families into poverty and themselves into degeneracy, the less spare time they have to devote to it the better. But this does not hold for the United States. We are ready for leisure. The prohibition law, through the greater part of the country, has made it possible for men and their families really to enjoy leisure. A day off is no longer a day drunk. And also a day off is not something so rare that it has to be celebrated.

"This is not to say that leisure may not be dangerous. Everything that is good is also dangerous—when mishandled. When we put our \$5 minimum wage for an 8-hour day into effect some years ago we had to watch many of our men to see what use they made of their spare time and money. We found a few men taking on extra jobs—some worked the day shift with us and the night shift in another factory. Some of the men drank their extra pay. Others banked the surplus money and went on living just as they had lived before. But in a few years all adjusted themselves and we withdrew most of our supervision as unnecessary.

"It is not necessary to bring in sentiment at all in this whole question of leisure for workers. Sentiment has no place in industry. In the olden days those who thought that leisure was harmful usually had an interest in the products of industry. The mill owner seldom saw the benefit of leisure time for his employees, unless he could work up his emotions. Now we can look at leisure as a cold business fact.

"It is not easy so to look at leisure, for age-old custom viewed leisure as 'lost time'—time taken out of production. It was a suspension of the proper business of the world. The thought about leisure usually went no further than that here were hard-driven

working people who should have a little surcease from their labors. The motive was purely humane. There was nothing practical about it. The leisure was a loss—which a good employer might take from his profits.

“That the devil finds work for idle hands to do is probably true. But there is a profound difference between leisure and idleness. We must not confound leisure with shiftlessness. Our people are perfectly capable of using to good advantage the time that they have off—after work. That has already been demonstrated to us by our experiments during the last several years. We find that the men come back after a 2-day holiday so fresh and keen that they are able to put their minds as well as their hands into their work.

“Perhaps they do not use their spare time to the best advantage. That is not for us to say, provided their work is better than it was when they did not have spare time. We are not of those who claim to be able to tell people how to use their time out of the shops. We have faith that the average man will find his own best way—even though that way may not exactly fit into the programs of the social reformers. We do know that many of the men have been building houses for themselves, and to meet their demand for good and cheap lumber we have established a lumber yard where they can buy wood from our own forests. The men help each other out in this building and thus are meeting for themselves one of the problems in the high cost of living.

“We think that, given the chance, people will become more and more expert in the effective use of leisure. And we are giving the chance.

“But it is the influence of leisure on consumption which makes the short day and the short week so necessary. The people who consume the bulk of goods are the people who make them. That is a fact we must never forget—that is the secret of our prosperity.

“The economic value of leisure has not found its way into the thought of industrial leaders to any great extent. While the old idea of ‘lost time’ has departed, and it is no longer believed that the reduction of the labor day from 12 hours to 8 hours has decreased production, still the positive industrial value—the dollars and cents value—of leisure, is not understood.

“The hours of the labor day were increased in Germany under the delusion that thus the production might be increased. It is quite possibly being decreased. With the decrease of the length of the working-day in the United States an increase of production has come, because better methods of disposing of men’s time have been accompanied by better methods of disposing of their energy. And thus one good thing has brought on another.

“These angles are quite familiar. There is another angle, however, which we must largely reckon with—the positive industrial value of leisure, because it increases consumption.

“Where people work longest and with least leisure, they buy the fewest goods. No towns were so poor as those of England where the people, from children up, worked 15 and 16 hours a day. They were poor because these overworked people soon wore out—they became less and less valuable as workers. Therefore, they earned less and less and could buy less and less.

"Business is the exchange of goods. Goods are bought only as they meet needs. Needs are filled only as they are felt. They make themselves felt largely in leisure hours. The man who worked 15 and 16 hours a day desired only a corner to lie in and a hunk of food. He had no time to cultivate new needs. No industry could ever be built up by filling his needs, because he had none but the most primitive.

"Think how restricted business is in those lands where both men and women still work all day long! They have no time to let the needs of their lives be felt. They have no leisure to buy. They do not expand.

"When, in American industry, women were released from the necessity of factory work and became the buyers for the family, business began to expand. The American wife, as household purchasing agent, has both leisure and money, and the first has been just as important as the second in the development of American business.

"The 5-day week simply carries this thought farther.

"The people with a 5-day week will consume more goods than the people with a 6-day week. People who have more leisure must have more clothes. They must have a greater variety of food. They must have more transportation facilities. They naturally must have more service of various kinds.

"This increased consumption will require greater production than we now have. Instead of business being slowed up because the people are 'off work,' it will be speeded up, because the people consume more in their leisure than in their working time. This will lead to more work. And this to more profits. And this to more wages. The result of more leisure will be the exact opposite of what most people might suppose it to be.

"Management must keep pace with this new demand—and it will. It is the introduction of power and machinery in the hands of management which has made the shorter day and the shorter week possible. That is a fact which it is well not to forget.

"Naturally, services can not go on the 5-day basis. Some must be continuous and others are not yet so organized that they can arrange for 5 days a week. But if the task is set of getting more done in 5 days than we now do in 6, then management will find the way.

"The 5-day week is not the ultimate, and neither is the 8-hour day. It is enough to manage what we are equipped to manage and to let the future take care of itself. It will anyway. That is its habit. But probably the next move will be in the direction of shortening the day rather than the week."

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### Attitude of Organized Labor Toward the Shorter Work Week

**A** RESOLUTION adopted by the forty-sixth annual meeting of the American Federation of Labor in October, 1926, formally approves of a policy of progressively shortening the working hours and working-days per week, but does not attempt to establish

a specific schedule of hours or days. The resolution in full is as follows:

Whereas under present methods of modern machine industry the workers are continually subject to the strain of mechanized processes which sap their vitality; and

Whereas if compelled to work for long hours under modern processes of production, the vitality, health, and very life of the workers is put in serious jeopardy;

*Resolved*, That this convention place itself on record as favoring a progressive shortening of the hours of labor and the days per week and that the executive council be requested to inaugurate a campaign of education and organization to the end that the purpose of this resolution shall be placed into effect.

Mr. William Green, president of the American Federation of Labor, comments upon the federation's policy of a shorter work week in a statement published in the New York Times of October 17, 1926:

Unless American workers keep pace with material progress, our whole civilization will fall down upon our efforts. We are living in an age of great technical progress and industrial development. Silently, unnoticed by the mass of the people, there are forces working toward specialization and mass production. Industries are revolutionizing their whole procedure, with resultant greater productivity of the worker because of higher and higher industrial efficiency. This dynamic, ever-changing characteristic which distinguishes modern industry calls for constant adjustment, so that our social and human values may not be overwhelmed in the general machinizing process and the lives of the workers may not be merged with their machines until they, too, become mechanical.

In this it is for the organized labor movement to safeguard our human values. As the worker's productivity increases, his wages first of all must increase in proportion, in order that they shall help to absorb this increased output. Secondly there must be a progressive reduction of the hours of labor, so that men and women may have time to rebuild exhausted physical energies. This is more than ever important in the highly specialized processes of modern industry, where speed and monotony tax physical resistance to the utmost. With these two safeguards the physical resistance of the workers can be conserved and the foundation laid for the higher development of spiritual and intellectual powers.

America has had repeated experience with industrial depressions to which wage reductions have contributed. We have been often confronted with the challenging situation of workers clamoring for work on one hand, and on the other hand manufacturing establishments, equipped for work and with materials in supply, but no orders because there was no purchasing demand. In the face of this situation, wage reductions seem to indicate lamentable intellectual inadequacy.

But in the past decade a different policy has been proving itself. America is now known as the land of high wages and industrial efficiency. It should also be known as the land of short hours, for short hours and efficiency go together wherever the right adjustment has been made.

The American labor movement is strongly in favor of the 5-day work week, wherever it is possible. We will work for progressive reduction of hours, wherever this may be accomplished without retarding industrial progress.

Mr. Sydney Hillman, president of the Amalgamated Clothing Workers of America, in which organization the 5-day week has made considerable progress, is quoted as follows in the New York Times of October 17, 1926:

The whole achievement of organized labor has been to improve the quality of living of the great masses of workingmen, to help them share in the improvements of industry and to give them the leisure required in a democratic society for effectively assuming the duties of a free citizenship. The 5-day week is another step in this program of progress. When achieved throughout the land it will be added to those great humanitarian gains of the last half century which sought to limit the labor of children and women and to protect the victims of industrial accidents.

American industry is unquestionably in a position to yield its workers a 5-day week. The introduction of machinery, constantly adding to the output of workingmen, is in this country a matter of almost hourly occurrence. Produc-

tion is here daily rising to heights that would a decade ago have been regarded as unimaginable. The speed and strain of industry are always greater. In no way can the efficiency of both American workers and American industry be better protected and furthered than by a general reduction in the work week.

Such a movement is also bound to have even more far-reaching and fundamental effects. The addition of leisure to the great bulk of the population means improvement in the standard of living, the creation of a demand for new goods and services, and the widening of the American market for this vastly increased product of American industry. This country alone, with its higher standard of living, has avoided in the past years the severe industrial depressions which have been so common in every other industrial country.

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### Attitude of Certain Employers to 5-Day Week

JUDGE Elbert H. Gary, chairman of the board of directors of the United States Steel Corporation, contributes the following opinion on the shorter week in a statement published in the New York Times of October 17, 1926:

I don't think the workers would favor it unless they should receive the same compensation for the 5-day week that they now receive for 6 days, and that the employer can't afford to pay. The employer would have to carry the added expense to the purchaser and consumer and they wouldn't stand for it and ought not to be made to.

Most of these questions involving expenses are essentially between the workers and the consuming public. The 5-day week is impractical in the steel business, and I don't believe it is practicable in any other business. Competition with European industry would be out of the question if American labor worked only 5 days, while they worked 6 days a week abroad. We couldn't stand up under it.

In times of great business activity, as at present, the productive capacity of our industries would not meet the demands of the consuming public if they were operated only 5 days a week. The only way to meet this lack is by increasing plant capacity, but that would add millions of dollars to the expense, for the cost of construction is up and is going higher and that additional expense would have to be carried by the consuming public. All the things that increase the cost of production increase the cost to the consumer and that also works to the prejudice of the employee part of the general public not engaged in the particular industry concerned.

It is illogical to work only 5 days a week and get paid for 6. Most people work 6 days, and it isn't fair for half of the community to work only 5 days and the other half 6 days.

The commandment says, "Six days shalt thou labor and do all thy work." The reason it didn't say 7 days is that the seventh is a day of rest and that's enough.

A collection of statements regarding the 5-day week from the presidents of various large industrial establishments is published in the October, 1926, number of the Pocket Bulletin of the National Association of Manufacturers. Among the manufacturers giving their objections in some detail, the following may be quoted as fairly typical:

Mr. Charles Cheney, president of Cheney Bros., South Manchester, Conn.:

I do not think that the argument that industry will produce as much or more in 5 days of 8 hours each as it does now in 5½ or 6 days can be taken seriously by a sober-minded man.

I think that it is very unsafe to establish basic principles regulating the operation of industry upon a short experience in a time of unusual prosperity. Certainly as the world becomes better balanced and as the equilibrium between America and Europe is reestablished, we shall get back to a basis of competition in which it will be most difficult to maintain present margins. When the nations

of the world settle down to a real steady competitive contest, that one which produces most efficiently will hold the leadership. America has a great handicap at present over the rest of the world, but it can easily sacrifice that handicap by letting down upon its productive efficiency.

To my mind nothing could be more unsound than the policy of the American Federation of Labor in seeking to reduce output. That philosophy strikes at the very root of America's prosperity. The rest of the world is now eagerly scanning American methods of production to learn why we are outstripping them and they are answering their own questions by stating that we succeed by making it possible to produce freely, without being dominated by hampering restrictions. The labor union policy of restricting output has Great Britain on its back, and if they can not cut loose from it the ultimate result will be the elimination of Great Britain in its struggle to maintain its place in the world commerce. The final result will be the breakdown of the British Empire.

If we want to initiate a policy founded upon that philosophy the 5-day week is a good way to begin.

Mr. Fayette R. Plumb, president of Fayette R. Plumb (Inc.), Philadelphia and St. Louis:

Looking at the question of a 5-day week from the standpoint of the worker rather than that of the employer, it appears to me that he must decide first whether he wants a lower standard of living with less work or to keep on raising his standard by sharing in the benefits of increased production, brought about by improvements in mechanical processes and management. If the movement from a 48-hour week to a 40-hour week should be gradual, improvements in the manufacturing and distribution processes might so offset the loss of "manpower hours" as not to cause any actual decline from the present standard of living; but it would keep the standard from rising as it otherwise would.

The only condition under which this would not be so would be if the total production per man per week would be as great in 40 hours as in 48 hours, all other conditions being the same. As a matter of fact a uniform work week for all industries is a fallacy.

In some industries a man may very well reach his maximum productive capacity working 40 hours per week on account of the severe physical or nervous strain involved. In another industry a man may work 60 hours a week with no more nervous or physical expenditure of energy. If the work week of such latter industry were reduced to 40 hours, the public as a whole which means principally the workers, industrial and agricultural, would pay for the 20 hours of idleness.

If, for instance, workers in shoe factories now working 48 hours per week and the hours are reduced to 40 hours with a consequent reduction in the weekly output of each man and no reduction in his weekly wages, the cost per pair of shoes is increased. Who buys the shoes? They pay the shoe workers for 8 hours they do not work.

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## The Municipal Market System of Norfolk, Va.

**I**N its system of public markets Norfolk has a modern and extremely well equipped market building, and in addition one large farmers' or curb market and two smaller curb markets.

The public market was originally a place where producer and consumer were brought together. However, the tendency in modern cities apparently has been to relegate this service to the street or curb markets and to use the market building proper for retail dealers who, for the most part at least, are not producers of the articles they sell.

This is true of the Norfolk market system. The large market building is occupied largely by retail merchants, some of whom do a wholesale business, and in many instances furnish services that were usually unknown in a strictly producers' market, such as giving credit,

delivering purchases, and maintaining a telephone. The purpose of the market is set forth in an inscription over the portal of the Norfolk market: "That pure food may be kept in the best manner and sold at a fair price, this building is erected by the city of Norfolk." In the market building the housewife can purchase her supplies, knowing that careful and constant supervision insures that the food is displayed under the most sanitary conditions. Here, too, she is able to find a wide variety of choice and to compare prices of the different dealers. Prices seem, on the whole, to vary little from those in stores. In the curb markets the farmer sells his produce directly to the consumer, and the prices are somewhat lower than prices in the market building.

The market building is situated in the down-town section, close to the shopping district, very easy of access by street car or bus from every part of the city. In addition to a population of 115,777 in the city proper, according to the 1920 census, there are a number of people living in outlying towns who can reach the market easily by bus or street car.

The present modern, sanitary, well-equipped market building of Norfolk is the result of the efforts of the women of the city, led by the Housewives' League, and ably supported by the director of public welfare, under whose jurisdiction the market comes. The people of Norfolk who purchased food at the market had been continually complaining that the old market was dilapidated, unspeakably filthy, and without any modern conveniences; the tenants of the open-shed market had been constantly reporting the loss of food-stuffs from the depredations of rats that infested the place. After a publicity campaign on the part of the women of Norfolk, they obtained the consent of the city council to carry out their plans and it was decided to erect a \$100,000 market building. The World War, however, which broke out just afterwards, caused the postponement of the erection of the building, because of the high cost as well as the necessity for conserving man power. After the war a more elaborate building was decided on, and it was erected and opened for business in November, 1923.

#### Cost and Construction of Market Building

THE entire cost of the building was \$521,000, which was financed by a bond issue of \$500,000. It is hoped that the market will pay for itself in 20 years. The carrying charges are in round numbers, \$35,000. The operating expenses total about \$30,000 a year. The income from the market building and curb markets approximates \$74,000. The director of public welfare considers that the market is paying splendidly, since from \$6,000 to \$10,000 is turned into the city treasury each year, and when the market is paid for the city should realize an annual income of \$40,000 from the investment. The ground is owned by the city. The cost of the market exclusive of the electrical work, refrigerating system, fixtures for "islands," and heating plant, was \$273,000. The refrigerating plant cost about \$105,000 and the heating plant about \$4,800.

The municipal market is a steel structure, the exterior being of Indiana limestone and faced brick and the base of imitation granite.



EXTERIOR OF MUNICIPAL MARKET BUILDING, NORFOLK, VA.



INTERIOR OF MUNICIPAL MARKET BUILDING, NORFOLK, VA.

The interior is of faced brick with polychrome terra-cotta trimmings, with a brown quarry tile floor. The building is 232 feet long, 109 feet wide (exclusive of the fish market), and 47 feet high at the center. The fish market—a separate room at one end of the market—is 39 by 77 feet.

The building in the center extends a story higher than the wings which flank the main edifice. This arrangement, with the many windows in the ends and sides, permits the building to be flooded with light, large curtains affording protection when the sun is too strong. The windows for the most part are raised by electric motor, though in some a chain fall is used. The indirect method of lighting is used, six 500-watt lamps being placed on the top of the refrigerated box in each of the 14 "islands," so as to send the light to the ceiling where it is reflected throughout the building.

An excellent feature of the building, indispensable in any modern market, is the refrigerating system. A duplicate system was installed so as to avoid any chance of loss by breakdown. A 35-ton Fricke compressor driven by a 50-horsepower motor and linked up to an elaborate system of brine tanks and pipes maintains a temperature of 20 to 40° in the storage chambers, 34 to 38° in the refrigerators, and about 50° in the counters.

The refrigerating machinery (for the most part) and the engine room are located underground. Over these rooms are the shipping and receiving rooms, which connect with the delivery platforms. In this section is an abattoir, where chickens are killed and feathers removed at a cost of 4 cents per chicken.

#### Special Conveniences of Market Building

AMONG the conveniences of the market are the cold-storage chambers on the second and third floors, above the shipping rooms, two freight elevators furnishing service to these rooms. There are 83 storage lockers, averaging 48 square feet. Thirty-five of these lockers, located on the third floor, are reserved for fruit and vegetables and rent for \$12.50 per month. On the same floor are 16 lockers for the use of tenants of the fish market, which rent for \$10 per month. These are smaller than the other lockers and average only 40 square feet. On the second floor the storage room is divided into 32 lockers for meat, 29 of which rent for \$15 per month, and the other 3 for \$55, \$60, and \$65 per month. These storage chambers are a great help to the market men, since meats and produce can be stored for three or four days or even a week, making it unnecessary to sell at a loss or to have goods spoil. About 30 lockers are rented. These lockers can also be rented by outside firms; at present, however, only one outside firm rents a storage locker. Fifty-two small lockers are available for the use of market men for their personal belongings.

Above the fish market, space was provided for a restaurant, but this was deemed unnecessary, and it is used for the offices of three of the tenants of the market. In this section is the lavatory for white men. The washrooms for colored men and colored women and the lavatory and rest room for white women are situated on the second floor in corners of the building.

Three pay-station telephone booths have been installed in the building and drinking fountains have also been placed in the market.

The offices of the superintendent of markets, which consist of an entrance hall, office of superintendent, and office of assistant, are located on the second floor. The municipal market building and the curb markets are maintained by a staff of 11, consisting of the superintendent, assistant to the superintendent, three engineers, night watchman, three laborers who clean the market, one inspector and clerk, and one maid who cleans the offices and the women's lavatories.

After the market building was completed the building was so cold that it was not well patronized, and in November, 1924, an oil-burning heating plant was installed. A Skinner belt-driven circulating fan, 33 by 65 feet, driven by a 7½-horsepower 220-volt general electric motor, sends the heated air into the market building.

In the market building are 115 stalls, 43 for fruit and vegetables, placed along the walls of the market, and 72 refrigerated stalls—16 in the fish market, and 56 meat, poultry, and delicatessen stalls. The latter are arranged in 14 hollow squares (32 feet by 22 feet 10 inches), or "islands," as they are called, 4 stalls to an "island." In the center of the "island" is a large refrigerated box (9 by 4½ feet) divided into four compartments, with a separate door for each compartment. Double plate-glass windows with an air space between are let into the walls of the refrigerator. The counters (27 feet 5 inches of counter space to a stall) of the "islands" are of vitrilite, with glass inclosures for food, and are refrigerated. In each "island" is a stand with running water. The rental of these stalls averages \$50 a month. In some cases two stalls in an "island" are rented by one firm; in a few cases the entire "island" of four stalls is occupied by one tenant.

The stalls in the fish market have refrigerated counters, and lockers built under the counters. These stalls average 96 square feet and rent on an average for \$30 a month.

#### Services Rendered by Market Men

THOUGH a market has usually been a place of public exchange where it has been customary for the purchaser to come in person to look over the produce for sale, modern conditions have greatly modified this custom. Most of the firms in the Norfolk market building have telephone connections, and many receive a large number of their orders over the telephone. One market man estimated that he did 95 per cent of his business over the telephone; some stated that one-half of their business was telephone orders, while others thought that perhaps one-third was a fair estimate; one or two received 10 per cent of their orders in this way; and some said that they did little or no business over the telephone.

Many firms give credit, though this varies from trusting a few old well-known customers for very brief periods to regular systems of bookkeeping for "charge" customers and careful investigation of references. One trusting market man in the fish section gave credit rather liberally, though he never looked up references, for he said, optimistically, "Surely no family can eat very much fish in a month;

certainly not over \$10 worth; and it is better to lose that than to spend so much time investigating all one's customers because one or two might not pay."

Though some firms conduct their business on a "cash-and-carry" basis, probably half the tenants deliver purchases for their customers, one firm having as many as six deliveries a day in one section of the city, with fewer deliveries in other sections and also deliveries in outlying towns. A few, who do not deliver goods as a general rule, will make arrangements to send home the purchases if the order is large enough. The market men who deliver purchases, give credit, and carry out telephone orders promptly seem to have the advantage and on the whole do not complain so much of dull business.

It does not seem to be possible in any way to estimate the patronage. The market men admit that during the time when the market was not heated business was not so good. One butcher who gave up his stall in the market at that time but later returned said that he considered business extremely good now. Most of the tenants feel that Saturday is the best market day, and think that the housewife lays in a good supply on that day and probably telephones her orders for the rest of the week either to the market or to the corner store. One firm does as much business on Saturday as all the rest of the week together. One poultry dealer opens his stall only on Saturday, though he pays rent for the entire week. Some market men feel that when the curb market is at its height in the summer and early fall the patronage is greater in the curb market, and those inside the market building suffer.

In a few cases the tenants of the market stalls raise some of their produce, but for the most part they buy from the wholesalers.

### Regulations of Municipal Market

THE regulations governing the municipal market are as follows:

#### RULES AND REGULATIONS GOVERNING MUNICIPAL MARKET

**RULE 1.**—Rentals are payable monthly in advance on the 1st day of each month, and shall be paid at the office of the superintendent of the bureau of markets not later than the 5th day of each month.

The right of each tenant to hold such stand, stall, or other space for which permit is granted, may be terminated at the end of such monthly period, for just and sufficient cause, at the discretion of the director of public welfare and the superintendent of the bureau of markets.

**RULE 2.**—The director of public welfare, and superintendent of the bureau of markets, also, reserves the right to terminate permits if, in their judgment, the tenant is not conducting his business in a suitable and satisfactory manner, or is guilty of violating any of the rules and regulations.

**RULE 3.**—No tenant shall be permitted to transfer, sell, assign, sublet, work on shares, or give his rights away in any stall, stand, or other space in the market.

**RULE 4.**—In the event of the death of a tenant, permit shall be transferred to heirs at the discretion of the director of public welfare and the superintendent of markets.

**RULE 5.**—Vacancies will be filled from a waiting list on file in the office of the superintendent of the bureau of markets, and in the order in which applications are filed, provided the applicant will, in the judgment of the director of public welfare and the superintendent of markets, make suitable and satisfactory tenants.

RULE 6.—All tenants will be required to keep their counters, meat blocks, stands, and refrigerators clean at all times and open for inspection.

RULE 7.—The throwing of dirt or rubbish in the aisles is strictly prohibited. Tenants will be held responsible for sanitary conditions of aisles adjoining their stands of stalls.

RULE 8.—A covered container for refuse must be furnished by each tenant, which containers must, during the hours of business, be kept closed, except when in use, and emptied each day.

RULE 9.—Each tenant shall plainly mark, in such a manner as to be easily read from the aisle, the price of each article displayed for sale. Price cards on merchandise misrepresenting any goods offered for sale will be considered a violation of the rules. Short weight, short measure, or the sale of any food products unfit for human consumption will result in immediate suspension or dismissal from the market.

RULE 10.—No alterations of any description whatever to the stands, stalls, or fixtures shall be made without the consent of the superintendent, approved by the director of public welfare.

RULE 11.—All trucks or vehicles of any kind for carrying merchandise to or from stands or stalls in the market must be equipped with rubber tires and furnished by the tenants desiring such equipment.

RULE 13.—All tenants must use the doors and platform provided for that purpose for receiving and delivering merchandise. Merchants should notify their supply dealers when making purchases of the location of the receiving platform.

RULE 14.—Sales people must remain behind their counters when transacting business. The aisles are for customers and must be kept free.

RULE 15.—Loitering, boisterous language, or ungentlemanly conduct in or around the market will not be permitted.

RULE 16.—Each tenant will be held responsible for his employees in so far as conduct, cleanliness, and honest dealing with the public is concerned.

RULE 17.—Drains in the aisles must not be used for other than flushing purposes and will be used by city employees only when washing the floor.

RULE 18.—No tenant will be allowed to handle or sell at his stand or stall merchandise other than for which permit is granted and which will be in accordance with classified list designating articles to be handled.

RULE 19.—In the event of any stall or stand being declared vacant before the expiration of the month a refund will be made of the rent for the unexpired portion of the month.

RULE 20.—Any tenant who does not occupy continuously the space assigned him and fails to open his stand or stall for business each day, shall, unless good and sufficient reason is given to the superintendent of the bureau of markets, forfeit his permit.

RULE 21.—Market hours on days, excepting Saturdays, shall be between 6 a. m. and 6 p. m.; Saturdays the hours shall be between 5 a. m. and 9.30 p. m.

No market shall be held on New Year's, Christmas Day, or Independence Day. The market will close at 1 p. m. on Thanksgiving Day, Labor Day, and each Wednesday during the months of June, July, and August.

RULE 22.—No tenant shall arrange any commodity he offers for sale in such a manner as to deceive the public as to the real character of the article.

RULE 23.—Tenants shall not use newspapers or other printed papers for wrapping purposes. Butter, lard, and lard compound must be covered with waxed paper before being further wrapped.

RULE 24.—Telephone service, if desired, shall be furnished at the expense of the tenant, but any such installation shall not be made without the consent of the superintendent and approval of the city electrician.

RULE 25.—No signs of any description may be used in any part of the market or on the stands thereof without the consent of the superintendent of the bureau of markets. Standard sign has been designed by the bureau of markets and all merchants must conform to this standard.

RULE 26.—No livestock, such as bullocks, oxen, cows, or other cattle will be permitted in, nor exposed for sale within, the market limits.

RULE 27.—No live poultry or game shall be exposed for sale in the market.

RULE 28.—Each renter of a stand or stall shall post his license in a conspicuous place and the superintendent of the bureau of markets will not allow a tenant to occupy space unless the license law has been complied with.

RULE 29.—Tenants to whom stands or stalls are rented must be citizens of the United States and residents of the city of Norfolk.

RULE 30.—The commissioner of revenue shall grant no license to any person or persons to do business within the jurisdiction of the municipal market until a permit has been issued by the superintendent of the bureau of markets. Permits are revocable at any time when tenants fail to comply with the license laws.

RULE 31.—Tenants renting storage space shall under no circumstances allow another tenant, or any other person, to use or rent any part thereof.

RULE 32.—Fresh fish or seafood can not be offered for sale within the market limits except in that part of the market known as the "fish market."

RULE 33.—Fixing of prices by the tenants is strictly prohibited, and, upon satisfactory proof of any violation of this rule, guilty persons will be expelled from the market.

RULE 34.—Tenants will not be allowed to use sawdust, cork, or any other material on the floors inside of their stalls.

RULE 35.—Each market stand or stall must be operated by or under the supervision of its tenant.

RULE 36.—Oil or electric heaters will not be permitted in stalls or stands. Tenants desiring heat must install gas radiators. Expense of installation, amount of gas, used, etc., must be paid by tenant.

RULE 37.—The receiving and delivering platforms shall be used only for loading and unloading merchandise. Merchandise received must be moved from platform immediately.

RULE 38.—Vehicles of any kind will not be allowed to remain parked at the platforms for a longer period than is required to load and unload.

RULE 39.—Tenants will be held responsible for condition of drains, refrigeration coils, and plumbing within their stalls or stands.

RULE 40.—Passengers shall not use the elevators. They are to be used only for carrying merchandise to and from storage.

Any complaint from a customer is immediately investigated by the market superintendent or his assistant. Members of the staff are constantly going through the market and a close supervision is kept over the stalls.

#### Variety and Prices of Produce Offered

**I**N the market building there is not only a wide selection and great variety of choice possible but the purchaser is assured that the products are bought under exceptionally sanitary conditions. It is a great convenience to have assembled in one building so many firms, so that one can, with little effort, compare prices and food-stuffs. The fruit and vegetable stalls carry almost every kind of fruit and vegetables obtainable.

On October 11, the following were found in the market: Apples, artichokes, butter beans, lima beans, snap or string beans, beets, bananas, Brussels sprouts, cabbage, carrots, cauliflower, celery, coconut, cranberries, corn, dates, eggplant, figs, grapefruit, Concord grapes, black and white scuppernong grapes, Tokay grapes, mustard greens, turnip greens, dandelion greens, horse-radish, kale, lemons, lettuce, honeydew melons, oyster plant, onions, okra, oranges, parsley, Kiefer pears, Bartlett pears, alligator pears, sickle pears, peppers, white or Irish potatoes, sweet potatoes, quinces, Japanese persimmons, peaches, peas, radishes, spinach, turnips, and tomatoes.

The prices vary somewhat in the different stalls and in some instances there is a difference in quality; butter beans were 25 cents a quart at some stalls and 30 cents at others; lima beans were 25, 30 and 40 cents a quart; tomatoes were 10 and 15 cents a pound; black-eyed peas, 20, 25, and 30 cents a quart; spinach, 35 and 40 cents a peck; Irish potatoes, 60, 65, and 70 cents a peck; sweet potatoes, 45, 50, 60, and 65 cents a peck, though for the majority, the price was 60 cents; string beans, 8, 10, and 15 cents a quart; onions, 10 and 15

cents a quart; cabbage, 3, 4, and 5 cents a pound; okra, 15, 20, and 25 cents a quart; white scuppernong grapes, 10 and 15 cents a quart; black scuppernong grapes, 10 and 15 cents a quart.

In meats the prices also differed in the various stalls. Sirloin steak ranged from 35 to 45 cents per pound, though the greater number of stalls set the price at 40 cents; round steak varied from 30 to 40 cents, with the majority setting 35 cents a pound as the price; rib roast sold for 25 to 40 cents, with the greater number selling at 35 cents; chuck roast, 18 to 35 cents, the majority of butchers charging 22 to 25 cents; plate beef sold from 12½ to 15 cents except in the case of one stall who sold it from 8 to 10 cents. Pork chops could be bought from 35 to 45 cents, but 38 to 40 cents seemed to be the prevailing price. For a leg of lamb the price was 30 to 45 cents per pound, though the greater number charged 38 or 40 cents. With the difference in price, there is often a corresponding difference in quality.

Between the municipal market building and the city hall, in what was formerly a street, has been built a market for florists consisting of 18 stalls. This building cost \$3,600 and brings in practically that amount each year in rentals.

#### Farmers' Markets

THERE are three centers for farmers' produce, one adjoining the municipal market, one at the Norfolk Southern Railroad freight station, and the third situated between the other two markets. The first and second markets are both wholesale and retail, but the third is almost entirely wholesale.

The chief center for the farmers' stands is the section adjoining the municipal market building. About six city blocks are used, three blocks being usually kept for wholesalers and three for retailers. On one of these streets small umbrella sheds have been built. The wooden roof, about 13 feet above the ground and extending 5 feet over the pavement and 5 feet over the street, affords some protection from the weather. These sheds were built at the same time as the market building, and extend 144½ feet on one side of the street and 289 feet on the other, with 7½ feet between the posts. Automobiles, trucks, and wagons are drawn up to the curb, and produce is displayed on a rough sort of counter. Even though the trucks and wagons stand as close as possible, only a small number can be accommodated here. Some of those who have small places on the outskirts of town—mostly women—bring their produce in a basket on the arm.

As the various crops ripen—the strawberries in May, peas and cabbage in June, cantaloupes and watermelons and corn in late July and August, on into September, lima beans and butter beans usually in the middle of July, but in largest quantities ordinarily in September and often very heavy in October—they are brought to the curb market by the farmers. Greens are raised almost the entire year. Though the crops already mentioned are the heaviest, almost every kind of fruit and vegetable is raised in varying quantities since Norfolk is in the midst of a great truck-growing section. On Saturday, October 9, the farmers in this market had for sale beets, string beans, lima

beans, butter beans, navy beans, Kentucky beans, carrots, corn, egg-plant, endive, dandelion greens, mustard greens, turnip salad greens, collards, kale, lettuce, okra, peas, black-eyed peas, parsley, sweet peppers, red peppers, sage, spinach, green tomatoes, ripe tomatoes, white potatoes, sweet potatoes, turnips, apples, crab apples, pears, quinces, grapes—Concord and white and black scuppernong—pumpkins, butter, eggs, chickens, ducks, geese, cream, cracklings, liver pudding, souse, sausage meat, beef, lamb, pork, home-cooked pies and cakes, pumpkin (cooked), cottage cheese, potato salad, jellies and preserves, cooked hominy, baked beans. Some sold flowers, hand-made rugs, and tatting.

#### Prices Quoted in Farmers' Markets

THE prices at the different stands vary considerably. Some of the farmers have endeavored to set a price and have everyone adhere to it, but the attempt has not been successful. When the farmer has sold most of his produce and desires to return home he inevitably reduces his prices in order to close out the remaining stock. On Saturday, October 9, when 117 out of 364 farmers were interviewed, the price of butter beans, which seemed to be the heaviest crop in the market, ranged from 10 to 35 cents a quart. Of the 59 stands at which butter beans were sold the price at one was 10 cents and at another 35 cents a quart. The prices in between ranged from 15 cents at 6 stands, 20 cents at 24, 25 cents at 36, to 30 cents at another wagon. For lima beans the variation was from 25 to 35 cents a quart. Of 18 farmers selling this article 2 asked 25 cents a quart, 8 asked 30 cents, and 8 asked 35 cents. Tomatoes sold for the most part at 15 cents a quart, though 2 farmers were willing to take 10 cents, 5 asked 25 cents for 2 quarts, and 2 asked 20 cents a quart. Black-eyed peas varied in price from 20 to 30 cents a quart, selling at 8 places for 20 cents, at 7 for 25 cents, and at 3 for 30 cents a quart. Spinach ran from 20 to 40 cents a peck, the greater number asking 30 cents. Turnip salad brought from 15 to 30 cents a peck, about half the farmers having these greens for sale asking 25 cents a peck. Irish potatoes sold for 50 to 70 cents a peck, 60 and 65 cents being asked by the greater number of farmers. Sweet potatoes, in most instances, brought 50 and 60 cents a peck, though the range of prices was from 40 to 65 cents a peck. Okra sold for 10 to 25 cents a quart. Of 20 stands having this vegetable 5 sold it for 15 cents, 10 for 20 cents, 3 for 25 cents, 1 for 10 cents, and 1 for 12½ cents.

Saturday is the chief market day. There were 364 farmers on October 9. On Tuesday about 150 come in, but usually sell in wholesale quantities, and Wednesday is almost as light. Tuesday and Thursday have about the same number. Friday is, with the exception of Saturday, the heaviest day. January and February are the lightest months, with 150 farmers, while in August as many as 400 farmers sell their produce in the market.

Of 117 farmers interviewed 1 came a distance of 65 miles; 1, 55 miles; 1, 42 miles; 5 from 30 to 35 miles; 5 from 25 to 30 miles; 13 from 20 to 25 miles; 18 from 15 to 20 miles; 21 from 10 to 15 miles; 52 from a radius of less than 10 miles.

## Regulations of Farmers' Markets

THE chief regulation of this market is that farmers are not allowed to buy anything for resale but must sell their own products. The rules and regulations for the farmers' markets are as follows:

## RULES AND REGULATIONS GOVERNING FARMERS IN MUNICIPAL MARKET PRECINCTS

RULE 1.—No person, except renters of fixed stalls or stands in the market, shall, within the limits or precincts of the market, sell or attempt to sell any products from his cart, wagon, vehicle, or other conveyance until he shall have applied to, and had designated by the superintendent of the bureau of markets, or his assistants, the space where such products shall be sold.

RULE 2.—No person shall sell, or offer for sale, any article, within the precincts of the market, without having first paid to the superintendent of the bureau of markets the sum of 50 cents per day or part thereof for every single horse vehicle; 75 cents per day or part thereof for every double horse vehicle—truck over 1 ton; 50 cents per day or part thereof for every truck or automobile, 1 ton and under; 25 cents per day or part thereof for each person selling from baskets or other conveyances.

RULE 4.—Unloading produce or other merchandise from one farm cart, wagon, or vehicle to another within the limits of the market is strictly prohibited.

RULE 5.—All carts, wagons, or other vehicles must be moved from the precincts of the market immediately upon request of the superintendent of the bureau of markets after articles brought for sale have been disposed of.

RULE 6.—Vehicular space will be furnished only to those persons raising their own products and will not be required to pay an additional license. All persons selling from carts, wagons, or other vehicles, produce, or other articles, not grown or raised on their premises, shall be deemed peddlers and will not be allowed to sell within the market precincts.

RULE 7.—The superintendent of the bureau of markets may at any time require a certificate from the county treasurer, or other responsible officials, certifying to the fact that any person offering for sale farm products is a producer and located in his district. Or may require an affidavit to the effect that articles offered for sale were not bought to sell again.

Section 299 of the Norfolk City Code reads as follows:

"No person shall occupy any part of the street or market place, at or near the market, for the purpose of exposing for sale any garden produce, or other thing, other than such part of the same as shall be assigned and set apart to him for the purpose by the superintendent of the bureau of markets, and, if any person, on being required by the superintendent to remove, and neglecting to do so immediately, shall pay a fine of not more than \$25 for each offense, and, if any person shall neglect or refuse to obey the directions of the superintendent, respecting the arrangement or removal of any article, cart, wagon, or other thing, in the market or street adjoining, every person so neglecting or refusing shall pay a fine of not more than \$25, and, moreover, shall be expelled from the market by the superintendent. (Ord., 1894, and 1919.)"

The same rules and regulations apply to the other two farmers' markets. One is held at the Norfolk Southern Railroad freight station once a week. It has been the custom for the farmers to come in on the morning train on Friday, arriving at 7.30 a. m., and to sell their produce, which they either bring in a basket on the arm, or ship by freight, to the purchasers who come to the freight station platform or yard. From these farmers the city derives no revenue. Some of the farmers have been coming in automobiles and selling at the curb and the regular tax is collected from these farmers. Some sell their produce retail and some wholesale. Prices vary considerably. A few, when asked the price of produce, say they take what they can get, but the majority have a fixed price, which is lower in some instances than the down-town market. Many house-

wives come to meet the train, and in a number of cases the farmers have only enough produce to fill orders given the week before and carry no surplus. On Friday, October 15, there were 42 farmers in automobiles, and possibly as many more came by train to sell in the freight-yard station. This market is practically over by 10 o'clock in the morning, or earlier. Nearly all the farmers come a distance of 20 miles, and a few haul their produce 50 miles or more from their farms to the market.

For the third market, the Norfolk City Council adopted an ordinance August 10, 1926, creating a market zone for farmers on Brambleton Avenue, between Church and Chapel Streets, and on Wide Street, between Burruss Street and Olney Road. Circulars were distributed to the farmers in the down-town market area, advising them of the curb space provided for the sale of farm products, either wholesale or retail, and urging them to try out this new location and help to establish a profitable farmer market. Not more than a hundred farmers a week come to this market. Saturday is the main day, though a few come in every morning. The market is almost entirely over by 9 a. m., and it is at present chiefly wholesale.

## PRODUCTIVITY OF LABOR

### Productivity of Labor in the Rubber Tire and the Iron and Steel (Revised) Industries

ONE more industry, rubber tires, has been added to the list of industries for which productivity indexes have been constructed by the Bureau of Labor Statistics, bringing the number up to 11. This industry is especially interesting because in it the output per man-hour for the period 1914-1925 increased at a faster rate than in any other industry thus far studied. For all practical purposes, however, the increase in productivity in rubber tires is about equal to that in the automobile industry; that is, the man-hour output in 1925 was approximately three times as great as in 1914. Both of these are comparatively new industries, having their period of greatest growth during the last 10 years. It is this fact, rather than anything in the character of the industries themselves, which accounts for the unusual rate of increase in output per man-hour as compared with that in older industries. In the case of rubber tires, for instance, the annual production for 1925 was almost seven times as large as the production in 1914, while the employment only slightly more than doubled, thus resulting in a productivity index of 311, which means an increase over 1914 of 211 per cent.

The productivity index for the iron and steel industry published in the Labor Review of July, 1926, has been revised and extended. Further study of production and employment data has made it possible to extend the index back to 1899, and also to calculate separate productivity indexes for blast furnaces and for steel works and rolling mills. This separation has brought to light an unsuspected high productivity in blast-furnace operation, the index showing that the output per man-hour of blast-furnace workers almost doubled between 1899 and 1909, and then very nearly doubled again by 1923. Thus the output in 1923 is shown to be nearly four times as large per man-hour as it was in 1899.

The productivity index for steel works and rolling mills is not so impressive, but this can be partly explained on the ground that this branch of the industry covers so many different operations that striking improvements in particular processes might be obscured by the general overhead. Even at that, the increase here was very marked. The man-hour output in 1925 was somewhat over one and one-half times the output of 1909 and about two and one-half times the output of 1899. This branch of the industry showed a great increase in productivity during the year 1925.

The composite index for both branches combined, except for being extended back to 1899, has not been materially changed. The revised figures approximate those first published for all years from

1914 down to 1921, but from then on to 1925 the new figures are higher. This is due to the fact that the reduction in hours in recent years was more adequately taken into account.

### Rubber-Tire Industry

THE rubber-tire industry ought to be, as far as the nature of the industry itself is concerned, comparatively easy to analyze. There are, it is true, some problems involved in constructing an index of production from output figures for pneumatic tires, truck tires, and inner tubes, but the predominance of pneumatic tires is so great as to minimize any mistakes of judgment that might be made in uniting these three products under the one production index. There is, however, one serious difficulty to be overcome, namely, the old classification of the industry used by the Census Bureau prior to the taking of the 1921 census. Before that census the rubber industries had been classified into (1) rubber boots and shoes, (2) rubber belting and hose, and (3) rubber tires, tubes, and rubber goods not elsewhere specified. Due to the tremendous growth of the rubber tire and tube branch, and also to some manufacturing developments within the industry,<sup>1</sup> it was deemed advisable in 1921 to make a new classification of the industry: (1) Rubber boots and shoes, (2) rubber tires and inner tubes, and (3) rubber goods not elsewhere classified.

From a statistical point of view, this was a most fortunate circumstance, for it resulted in the segregation of rubber tires and tubes, which is the most important branch of the industry, and which is also the most suitable for the calculation of productivity. The old classification is not a source of any trouble, as far as production statistics for 1914 and 1919 are concerned, but it obscures the employment data by combining the employees in the rubber-tire branch with those engaged in the manufacture of other rubber goods. Hence, it is quite a problem to get the approximate employment in the rubber-tires industry in 1914 and 1919.

### Index of Production

The data on production, while not all that could be desired, are nevertheless sufficiently complete to warrant the conclusion that the production index is quite accurate, despite the gaps which must be bridged. The census data are used for all census years, including 1925, while the 1924 figures are those of the Survey of Current Business (August, 1926) adjusted upward to bring them into line with the census data for 1923 and 1925. The output of one important tire manufacturing company is not included in the Survey of Current Business figures after September, 1921, which explains why they are too low to compare directly with the census.

As a check it is interesting to compare an index of crude rubber consumption by rubber-tire manufacturers for 1921-1925 with the completed index numbers of production for these same years.

<sup>1</sup> See Department of Commerce. Bureau of the Census. Census of Manufactures, 1923: "The Rubber industries." Washington, 1925, p. 5.

TABLE 1.—COMPARATIVE INDEXES OF CRUDE-RUBBER CONSUMPTION AND RUBBER-TIRE PRODUCTION, 1921 TO 1925

Index	1921	1922	1923	1924	1925
Crude-rubber consumption.....	100.0	152.3	170.8	211.0	256.9
Computed production index.....	100.0	155.5	170.4	187.5	219.8

It should be explained that the figures for casings, inner tubes, and solid truck tires were adjusted to each other on the basis of comparative value as shown by the census before being united in the one production index. The soundness of the production index is evidenced by the fact that for the first three years the indexes are practically identical. In the last two years the crude-rubber index rises rapidly and far surpasses the production index, a circumstance which is probably due to the growing popularity of balloon tires. The figures bring out very clearly the greatly increased demand for rubber in this country for this purpose.

#### Index of Employment

For the years prior to 1923, when the Bureau of Labor Statistics began to gather data on employment in this industry, there are no employment figures except those of the census, and, as explained in the beginning, these are defective for present purposes. The only solution for this tangle is to attempt to reconstruct from the census material a set of figures which can be accepted as being at least a rough approximation of the number of employees in the rubber-tire industry in 1914 and 1919. The explanation of all the steps involved in reconstructing the employment figures for these two years would be too long and tedious to set forth here. It is sufficient to point out that the combined figures appearing in the census for rubber tires and other rubber goods were segregated into two parts, those for 1919 on the basis of the relative number of men employed in the two industries in 1921 and those for 1914 on the basis of the relative value of the products in that year. Both of these methods are open to criticism from a statistical point of view, and could not be justified in an industry where the increased productivity had been comparatively small. But no probable error in the employment index could seriously affect the substantial correctness of the productivity index; the 1925 index of 311 may not be accurate to the unit, but it does indicate in a rough way the progress of the industry in productivity, namely, that the output per man-hour has been approximately tripled since 1914.

The data on hours of labor were taken from the census. It was necessary, however, to accept for both rubber tires and other rubber goods the average weekly hours in the years 1914 and 1919, but an analysis of the relative hours shown for the two in 1921 indicates that the hours are practically the same for both. The full-time hours were almost 55 per week in 1914, declining to about 50 in 1919 and 1921 and being reduced still further to 48 in 1923.

## Index of Productivity

The following table contains the data on production, man-hours, and productivity.

TABLE 2.—PRODUCTIVITY OF LABOR IN THE RUBBER-TIRE INDUSTRY, 1914 TO 1925

Year	Production index	Man-hours index	Productivity index	Year	Production index	Man-hours index	Productivity index
1914.....	100	100	100	1923.....	527	198	266
1919.....	394	303	130	1924.....	580	193	301
1921.....	309	163	190	1925.....	680	219	311

The great expansion of the industry is clearly shown by the production index, which was almost 700 in 1925; that is, the output in that year was nearly seven times as large as it was in 1914. Perhaps a better idea of the tremendous growth of this industry can be got from the original production figures themselves—the output of casings increased from about 8,000,000 in 1914 to nearly 60,000,000 in 1925, and the output of inner tubes increased from slightly less than 8,000,000 to over 75,000,000 in the same period. The production index is very conservatively estimated; in fact, it is probably too low, because of the weight assigned to truck tires, which increased at a slower rate than casings and inner tubes.

Employment reached a high point in 1919, when, according to the computations mentioned above, there must have been nearly 130,000 employees in the industry. This number was cut to around 69,000 in 1921, and rose again to 87,000 in 1923. The preliminary census figures for 1925 give only the number of wage earners, not including salaried employees, but the number of the latter employed in 1925 can be estimated on the basis of the relative number in 1923. The result of this computation indicates that the total number of workers on the pay rolls in 1925 must have been around 96,000.

The productivity index, while it is extremely high, is not surprising, in view of the production index. A rapidly expanding industry is always favorably situated for an increase in output per man-hour, especially when, as in this case, the industry is a new one, with the technique of production largely undeveloped. Twenty years ago the industry can scarcely be said to have been in existence, although, of course, the parent rubber industries from which it branched were well developed. The growth of the industry has naturally paralleled that of the automobile industry, and it is interesting to note the close similarity of the two productivity indexes. In both cases the output per man-hour in 1925 was approximately three times that in 1914.

## Iron and Steel (Revised Index)

SINCE the publication of the iron and steel productivity index in the July issue of the Labor Review the work has been gone over completely and new indexes calculated. Three important changes have been made in the indexes as originally published: (1) The data on hours of labor have been worked over again, with the result that the index of hours has been changed considerably; (2) the

data for earlier years—1899, 1904, and 1909—have been added and the base year switched from 1914 to 1909; and (3) separate indexes have been computed for blast furnaces as distinguished from steel works and rolling mills.

On the matter of hours it is only necessary to say that the earlier calculations failed to take adequately into account the reduction in hours since 1922. A reexamination of the census data, together with some of the reports of the Bureau of Labor Statistics on wages and hours, shows that the working week in 1909 and 1914 was much longer than was at first computed. Consequently, the reduction in recent years is correspondingly greater.

The earlier census years were added for several reasons. One is that 1914 was a year of severe depression in the steel industry and very unsatisfactory as a base for postwar indexes; the year 1909 was more nearly normal and the employment data probably just as good as those of 1914, so the base was changed to 1909. In the second place, the American Iron and Steel Institute reports contain data on pig-iron and steel-ingot production as far back as the seventies; these early figures may not be as complete as those for recent years, but it is probable that the record is quite good enough to justify the use of the figures in a production index. The man-hour indexes for 1899 and 1904 are based solely on the census data on employment, for these censuses contain no information on hours of labor; but it was assumed that the hours of labor were approximately equal to those in 1909. The only available data on this subject are to be found in a bulletin of the Bureau of Labor.<sup>2</sup> The number of employees used in this report as a sample for iron and steel is exceedingly small, but it is noticeable that the hours in practically all cases average at least as high as the weekly hours shown by the census in 1909. This seems to indicate that the working week at the beginning of the century was fully as long as it was in 1909.

The third attempted improvement in the index has been the separation of the blast-furnace index from that for steel works and rolling mills. This is not difficult to do, because the output of pig iron represents practically the complete production of blast furnaces, and the census gives separate employment and hours-of-labor data for the two branches of the industry. The output of steel ingots has been considered as indicative of output in steel works and rolling mills, although it is recognized that ingot output does not measure the activity in steel manufacturing anywhere near as exactly as the production of pig iron measures blast-furnace activity.

The construction of separate indexes must be confined to census years, because the employment data of the Bureau of Labor Statistics do not distinguish between the two. However, the productivity index of steel works and rolling mills has been extended to 1925 by using the Bureau of Labor Statistics employment index for that year. This employment index is for steel works and rolling mills and blast furnaces combined, but this ought not to lead to any great error in the productivity index because the number of employees in the former is over ten times the number in blast furnaces. Any changes that may have occurred in blast-furnace employment are almost completely obscured by the trend in steel-works employment.

<sup>2</sup> U. S. Bureau of Labor Bul. No. 59: Wages and hours of labor, 1890-1904.

## Index of Productivity

The following table contains the production, man-hour, and productivity indexes for each branch of the industry separately and composite indexes for both branches combined.

TABLE 3.—PRODUCTIVITY OF LABOR IN BLAST FURNACES, IN STEEL WORKS AND ROLLING MILLS, AND IN BOTH BRANCHES COMBINED, 1899 TO 1925

Year	Composite index for both branches			Blast furnaces			Steel works and rolling mills		
	Production	Man-hours	Productivity	Production	Man-hours	Productivity	Production	Man-hours	Productivity
1899	46	76	60	53	95	55	44	73	61
1904	59	85	69	64	87	74	58	85	68
1909	100	100	100	100	100	100	100	100	100
1914	97	97	100	90	72	126	98	102	96
1915	132	109	120						
1916	175	140	124						
1917	182	167	109						
1918	180	176	103						
1919	141	141	100	120	100	120	145	150	97
1920	171	149	115						
1921	80	85	94	65	47	138	83	93	89
1922	142	105	136						
1923	183	134	139	157	81	194	188	142	132
1924	153	111	137						
1925	182	114	159	142			190	<sup>1</sup> 123	<sup>1</sup> 153

<sup>1</sup> The employment index for 1925 for steel works and rolling mills contains the blast-furnace index also, but the error is not serious. See text for explanation.

It is worth noting some of the more significant facts indicated by the table. Considering first the composite index of both branches of the industry, attention must be called to the sharp fluctuations in annual production. Of all the major industries in this country iron and steel is probably the most sensitive to conditions of prosperity and depression; and while the fluctuations in production are quickly communicated to the employment, nevertheless there is enough of a lag to cause productivity to fall in periods of depression.

The trend of productivity itself is worthy of some comment. No amount of probable error in the figures could nullify the conclusion that there was a great advance in productivity during the years 1900-1909, coincident with the early development of the United States Steel Corporation. This increase in productivity undoubtedly continued through the period 1909-1913, but the depression in 1914 wiped out all the gains and the productivity index fell to the level of 1909. The beginnings of war prosperity in 1915 and 1916 were accompanied by high productivity, which, however, declined during the years of American participation in the war. This was probably the result of influences both internal and external to the industry. The reorganization incident to the performance of war orders for the Government would account for some of the decline, while the transportation crisis and the loss of workers to the Army undoubtedly accentuated it. In 1919, under pressure of the strike, the productivity index continued to fall and once more crossed the 1909 line.

The effect of the abolition of the 12-hour day can be seen in the last great advance of productivity in 1925. Despite the large production of that year, there were fewer workers in the industry than in 1919,

1920, or 1923, although the hours of so many employees had been reduced. The man-hour productivity of the workers in an 8-hour day has increased to such an extent that no more labor has been required than before it went into effect.

Considerable caution must be exercised in interpreting the results shown by the segregated indexes. It is clear that in blast-furnace operation the productivity index is not so much affected by prosperity and depression as are the steel mills; or, to put it another way, the employment fluctuates about as sharply and quickly as production. On the other hand, it is evident that the steel works and rolling mills can not dispense with their workers so easily in bad times.

From the data on steel works and rolling mills it might be inferred that the productivity in this branch of the industry remained below the 1909 level all during the period 1909-1921. Such, however, is not the case. It just happens that all three years for which separate indexes can be constructed were bad years for the industry—1914 was a year of severe depression, in 1919 occurred the strike, and in 1921 the bottom dropped out of the market. It is in fact almost certain, judging from the composite index, that the productivity index in steel works and rolling mills was over 100 in every missing year.

When all due allowances have been made, the fact remains that the blast-furnace productivity index has increased much more rapidly than that of steel works and rolling mills, but it is by no means certain just what this indicates. Superficially, it might seem evident that there has simply been a greater improvement in blast-furnace operation, but there is another possible interpretation of the figures which is worth serious consideration.

The blast furnace is a single productive unit, while many distinct operations are grouped together under the heading "Steel works and rolling mills." In the second place, it is extremely doubtful if production of steel ingots is anything like as good a measure of steel-manufacturing activity as pig-iron production is of blast-furnace output. Just as the composite productivity index of both branches of the industry effectively conceals the remarkable productivity increases in blast furnaces, so the general index for steel works and rolling mills may conceal great improvements in the subdivisions. This could only be established by a special field investigation, however, for no census data are available on this point.

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### Productivity of Labor in Wheat Farming

SOME modern developments in the productivity of labor as applied to dry-land wheat farming in the State of Montana are contained in an article by M. L. Wilson in the *Journal of Land and Public Utility Economics* (Chicago) for April, 1926. This article gives a brief description of the origin and progress of the experiment known as the Fairway farms project. Certain members of the Institute for Research in Land and Public Utility Economics had for some time been interested in the problem of land tenure, but it was not until 1924 that it became possible to carry on an actual experiment. In that year the Fairway Farms Corporation of Montana was incorporated as a nonstock, nonprofit, agricultural and

educational corporation for the purpose of testing out certain theories of farm organization, developing better practices in farm management, and providing "a demonstration in fair methods of adjusting the relations of landowners with tenants who wish to become landowners." In carrying out this plan the corporation acquired, by purchase or otherwise, a number of farms scattered throughout the central and eastern parts of Montana, and then leased these farms to desirable tenants on such terms as would enable the tenant to practice the best possible farming methods.

One point which is of particular interest is the present level of the productivity of labor on a well-managed farm. The important points are to lay out a farm of the right size and to furnish the necessary equipment for the tenant to get the best results. The following is a description of one farm.

\* \* \* The Davis Farm near Comanche, Mont., consists of slightly more than four sections (2,560 acres) and is a consolidation of what were eight separate farms. In 1926 this farm will have approximately 1,000 acres of spring and winter wheat, 600 acres of summer fallow, 300 acres of corn, 120 acres of dry-land alfalfa, and approximately a section (640 acres) of pasture. The farm is operated by the tenant and his son, who employ some additional labor during the seeding and harvesting period. The farm has 3 silos and 25 head of milk cows that are milked during the winter. A 15-30 three-plow tractor and a 12-horse team supply the farm power. The corn is planted with a two-row lister and cultivated with a two-row cultivator, and most of the summer fallow in 1926 will be cultivated with the tractor and a 12-foot duck-foot cultivator. There are but few farms in Montana at the present time which have the same organization of different lines of production as this farm, and it is expected that this farm will demonstrate the efficiency of certain low-cost systems of management.

A summary of the situation on the other farms serves to emphasize the point still more. A second farm consists of one section (640 acres) "and is a consolidation of three foreclosed units." In 1926 this farm is expected to have 160 acres of wheat and oats, 240 acres of listed corn, and 240 acres of pasture. It is being run by one man, except for some additional labor in harvest and first cultivation of listed corn.

A third farm consists of 130 acres of irrigated land and approximately 2 sections (1,280 acres) of dry-farming wheat land. Two men, with a 15-30 three-plow tractor and a 10-horse team, can perform the labor of raising 130 acres of alfalfa and feed crops and 640 acres of wheat, as well as summer fallowing the other 640 acres.

Still another farm, consisting of one and three-quarters sections (1,120 acres) of tillable land and three sections (1,920 acres) of grazing land, is run by two men who expect to "raise about 400 acres of wheat each year, with a like amount of summer fallow and corn, and take care of from 50 to 75 head of dual-purpose cattle."

These marvelous performances have been made possible by the use of improved machinery and an adequate supply of power. The farms are sufficiently equipped so that for each farm worker there is a medium-sized tractor or a 12-horse team, for in too many cases the farmers in Montana have failed because of an insufficient supply of power. Other machines that play an important part in increasing the acreage farmed per man are the "duck-foot" cultivator, the header barge, the corn lister, the listed corn cultivator, and the combined harvester-thresher. The first-named is a heavy cultivator with large V-shaped shovels, drawn by a tractor or a 12-horse team; it works up the soil for summer fallow and enables the farmer to

handle from two to three times the acreage that he used to work under the old scheme of plowing, harrowing, and weed skinning. The header barge is a machine for harvesting small grain, which cuts the cost of haying to about half the ordinary expense. The corn lister "combines plowing, seed-bed fitting, and seed planting in one operation." It also has the advantage of planting the corn at the bottom of the furrows, which the subsequent cultivation gradually fills up, thus producing a deep-rooted stalk which can withstand long drought. A new type of listed corn cultivator will enable one man with eight head of horses to cultivate four rows at one time, or about 30 acres per day, which is about twice the acreage that can be cultivated with the ordinary two-row cultivator.

With reference to harvesting, Mr. Wilson discusses only the latest methods, but in order to bring out more clearly the significance of the recent developments and to furnish a background for his figures, it will be worth while to mention some of the earlier methods. Harvesting used to be the biggest problem in connection with wheat growing, involving, as it did, so much labor and equipment that it was practically impossible for the ordinary farmer to own the machines or hire the necessary men. The old stationary outfit, consisting usually of 3 headers, 9 wagons, an engine, a thresher, and other accessory equipment, required from 30 to 35 men and from 65 to 75 horses, which made it necessary for several farmers to own an outfit in partnership or hire their threshing done by a traveling thresherman. In either case each farmer had to await his turn and many of them suffered serious loss to the crop through not having it threshed when conditions were right. And in any case the expense of harvesting was enormous—about \$150 per day at present wage rates for pay roll and from \$50 to \$75 per day for the hiring of horses. Therefore, while an outfit of this kind could usually harvest from 75 to 90 acres of wheat per day, it was a costly method of harvesting. The next step in the development of labor-saving machinery came with the 18-foot combined harvester, drawn by a tractor or by 33 horses, manned by 5 men, and cutting about 30 acres in a good day's run.

The latest development, which is the one discussed by Mr. Wilson, is the 12-foot harvester, drawn by a tractor and run by two, or at most three, men. This machine should cut somewhat more than 15 acres per day, and it is so inexpensive to purchase and operate that every farmer could afford to own one. It is hoped that this new method of harvesting will make it possible for two men to harvest as much wheat as they can seed. Then, by dovetailing corn production, silage, and dairying with wheat growing, a farmer with one hired man could work a dry-land wheat farm of about two sections (1,280 acres) with no additional labor of any kind, thus almost completely stabilizing employment in one of the most seasonal of all industries. This diversified farming, with sufficient motive power and high productivity of labor, is one method of meeting the falling prices of agricultural products and the occasional seasons of drought. It suggests the possibility of the further application of machinery to agriculture and the improvement of agricultural labor productivity to a point more nearly on a par with the productivity of labor in manufacturing industries.

# INDUSTRIAL RELATIONS AND LABOR CONDITIONS

## British Coal Mining Dispute

THE stoppage in the British coal mining industry began on May 1, 1926, and for seven months was practically complete. During this time negotiations were carried on more or less continuously between the Government, the miners, and the owners, looking toward the termination of the dispute, first, by the adoption of a national agreement, and later, by the adoption of district agreements, to take the place of that terminated by the owners on April 30. These negotiations successively failed, and by the end of November it was regarded as settled that no formal termination of the trouble would be reached. Men had begun going back to work with only local agreements, the number who took this course varying considerably from one district to another. It was expected that by this process coal production would gradually be brought up to normal again, but under it some parts of the coal fields might remain tied up for weeks longer. The following résumé of the struggle is summarized in the main from the official account given in successive issues of the Ministry of Labor Gazette (London), beginning with the number for August, 1926.

On March 6, 1926, the coal commission issued its report with a series of recommendations (see Labor Review, May, 1926, pp. 52-56), which, to become effective, required adoption by the owners and the miners and legislation by the Government. On March 24 the Prime Minister met both sides and told them the Government would take the steps necessary for putting the recommendations into effect, provided the employers and the men would agree to accept the report and carry on the industry on the basis so established. The subsidy which had been given to tide over the period while the commission was at work would expire on April 30, but, he stated, he would be willing, "provided an agreement could be reached by May 1, to consider the question of temporary assistance in order to ease the position in certain districts, where considerable sacrifices would be required." In response to a request from the miners that he would more clearly define what action the Government would be willing to take, he issued the following list of recommendations of the report which would involve Government action:

1. Further assistance by the Government in the investigation of processes of low-temperature carbonization.
2. Establishment of a national fuel and power council.
3. Provision for research to be largely extended by the industry with the support of the State.
4. The promotion of desirable amalgamations by provision for compulsory transfer of interests under existing leases where desirable amalgamations are prevented by the dissent of some of the parties or their unreasonable claims.
5. The State purchase of royalties.
6. Provision for a contribution to the welfare fund from royalties.

7. The granting of power to local authorities to engage in the retail sale of coal.
8. The establishment of a standing joint committee of the Ministry of Transport and Mines Department to promote measures to secure the adoption of larger mineral wagons on the railways and a greater concentration of ownership of wagons.
9. Statutory provision for profit-sharing schemes providing for the distribution to workmen of shares in coal-mining undertakings.
10. Provision for such modification in the law governing hours of labor as the owners and men might agree.
11. Provision by the Government of facilities for the transfer of displaced labor and the provision of funds for this purpose.
12. Consideration of the regulations governing the qualifications of mine managers.
13. Provision for compulsory pit-head baths to be financed from the welfare fund.
14. The establishment of joint pit committees.

Negotiations were carried on between the owners and the miners for a short time, which developed the fact that they were diametrically opposed on three points—the necessity for an immediate reduction in wages, the need for adopting longer hours, and the definition of a national agreement, together with the desirability of a uniform national minimum. The miners maintained that the “principle of a national agreement with a national minimum percentage” must be firmly adhered to, while the employers held that there must be varying district rates, fixed by agreements in the separate districts, but that after these had been decided upon the national conference might approve the district action.

They accepted the principle of a minimum percentage on basis rates in each district and proposed that the amount of this percentage and the amount of subsistence wages for lower-paid men should be referred to district associations, but were prepared to agree that the amounts of the minimum percentages settled in the various districts should be submitted to the national conference for approval.

On April 14 the owners issued a statement “to the effect that the owners in the districts would proceed to invite the workers’ organizations in the districts to consider with them the amounts of minimum percentages and subsistence wages.” The miners were unwilling to do this, so no district conferences were held, and on April 15 the mine owners posted notices at the majority of the mines terminating on April 30 the agreement under which the mines were then working and stating that after that date work would be available on terms to be published later. On the same day, April 15, the Prime Minister met the executive of the miners’ federation, who told him that a deadlock had been reached. Thereafter until May 2 the Prime Minister was negotiating with both sides. On April 30, the day on which the owners’ notices ending the agreement became effective, he secured from them an offer of which the main points were a uniform national minimum of 20 per cent over the 1914 standard on a uniform 8-hour basis, with a national agreement. Legislation would be necessary to authorize the new hours, but this should be of a temporary nature, and not later than December 31, 1929, the Government would set up a commission to see whether, as a result of better organization or better trade, or both, the condition of the industry would have improved to an extent which would justify reversion to the standard hours.

On the same day, April 30, the miners replied that the proposals could not be accepted; they once more stated their views on the question of extended hours,

their objections being that the present hours were long enough to supply all the coal for which a market could be found and were as long as the men should be expected to pursue such a dangerous and arduous calling; that the extended hours would merely increase the unemployed; that to increase hours would be to invite similar measures on the part of foreign competitors; and that such a proposal was contrary to the findings of the royal commission. As to counter proposals they repeated that they would be willing to cooperate to the fullest extent with the Government and the owners in instituting such reorganization as was recommended by the commission, but until such reorganization brought greater prosperity to the industry the miners should not be called upon to surrender any of their inadequate wages or conditions. They also intimated that a statement of proposals submitted by the Trades-Union Congress, a copy of which they inclosed, afforded a reasonable basis of negotiations and settlement. These proposals included the suspension of notices, to allow further inquiry, and the continuance of the subsidy for a fortnight.

At midnight on April 30, in accordance with the owners' notices, all work in the mines, except that of the safety men, came to a standstill. Negotiations for a renewal upon the basis suggested by the Trades-Union Congress were under way between the Prime Minister and the congress officials when they were interrupted by the general strike, which began on May 4 and was called off on May 12, on the assurance of Sir Herbert Samuel, chairman of the coal commission, that he would strongly urge upon the Government the adoption of certain recommendations which, in brief, provided that negotiations should be resumed, the subsidy being renewed for a reasonable period, that a national wages board should be established composed of representatives of the two sides with a neutral element and an independent chairman, that any points of disagreement might be brought before this board for consideration, that there should be no revision of the former wage rate unless there were sufficient assurances that the measures of reorganization proposed by the committee would be effectively adopted, and that there should be a supervising body to prevent undue delay or neglect in putting them into effect. If, after these steps had been taken, a reduction of wages proved absolutely necessary, the wages board should prepare a plan providing for revision from time to time as might be desirable. The recruitment of new miners should be stopped as long as there were any unemployed, and the closing of uneconomic mines should be provided for by transferring the workers who could be moved to other mines and by maintaining for a time those who could not and for whom alternative employment could not be found.

The miners declared themselves unwilling to accept these terms, since they involved a reduction of wage rates for a large number. However, the Prime Minister, after separate negotiations with both sides, sent to each on May 15 proposals which he held furnished a reasonable basis for settling the dispute in accordance with the recommendations of the coal commission. If they were accepted, the Government would extend further financial assistance to the industry to the amount of approximately £3,000,000.<sup>1</sup> Both sides rejected these proposals, though on different grounds. The miners voiced their views in a resolution passed on May 20 by a delegate conference:

We are largely in agreement with the legislative and administrative proposals set forth and are prepared to render every assistance possible to insure their success, but see no reason why such measures should be first reviewed by the

<sup>1</sup> Pound at par=\$4.8665; exchange rate was about at par.

coal advisory committee. We are unable to recommend the miners to accept his (i. e., the Prime Minister's) proposal for a reduction in their wages, which admittedly do not at present provide for a decent standard of living. We further object to the proposal that a board with an independent chairman shall be empowered to abolish the national minimum and enforce varying minima throughout the districts.

The mine owners gave their refusal in a statement in which they reiterated that the introduction of the 8-hour day was absolutely essential to the prosperity of the industry, that with it the wage cuts in the worst districts would not need to exceed 10 per cent, and that even this cut would be made up by fuller employment. Furthermore, they were unwilling to accept the degree of Government regulation involved in the plan.

The industry requires freedom and stability in its operations as conditions essential to its prosperity, and the initiating of policies, either legislative or administrative, such as are contemplated in certain of the recommendations of the royal commission must inevitably have the effect of restricting its operations and increasing the difficulty of a restoration to sound economic conditions based upon the interests of the community. The coal owners are convinced that the proposals submitted to them on May 14, calculated as they are to limit freedom of administration, will not be helpful in securing the ultimate result that is aimed at, namely, the increased efficiency of the industry. Indeed, it must be stated emphatically that it will be impossible to continue the conduct of the industry under private enterprise unless it is accorded the same freedom from political interference as is enjoyed by other industries.

There were some futile negotiations between the owners and the miners, but nothing further of importance occurred until June, when on the 21st two bills were formally introduced in Parliament by the Government, one permitting the reestablishment of the 8-hour day and the other dealing with questions of reorganization (for their terms, see the Labor Review, September, 1926, p. 121, and October, 1926, p. 39). The extension of hours was regarded with particular hostility by the workers generally, and early in July the general council of the Trades-Union Congress issued a notice that the council would cooperate in opposing the Government policy, especially in regard to hours. The mine owners, on the other hand, in view of the passage of the act, announced in a number of cases the terms which would be open to the men on the basis of the longer day.

In general they were such as to have the effect of guaranteeing to the men for three months wages roughly similar to those received under the previous agreement, except that now eight hours would be worked instead of seven. But in Northumberland and Durham there was a reduction of roughly 10 per cent and in Warwickshire and Cannock the new terms for 8 hours were rather better than the previous terms for 7. In all cases the division of the proceeds of the industry was to be 87 per cent to wages as against 13 to profits. The Yorkshire owners at first offered 85 to 15, but at the instance of the Government came into line with the other districts. After three months it was contemplated that wages should be based on ascertainment in the usual way, subject to a minimum equivalent to that in force under the 1921 agreement. These terms constituted a definite offer by the owners, but the immediate effect as regards the return of men to work was small.

On July 19 the Bishop of Litchfield submitted to the Prime Minister a plan for ending the dispute which he with some representatives of Christian churches had drawn up and to which the miners had assented. The main features of the plan were that the men should go back on the terms prevailing in April; that a settlement, when

reached, should be on a national basis; that the coal commission should be reappointed to draw up a reorganization scheme and to work out the wage references in its earlier report; that the Government should undertake to carry through at once whatever legislation the commission might recommend for this purpose; that a national settlement should be reached within a short, defined period, and if it were not, a joint board should appoint an independent chairman, and his decision on the points still unsettled should be final. Financial assistance should be granted by the Government for the period agreed upon as necessary for negotiations.

On July 19 the Prime Minister met the representatives of the churches and in his reply pointed out that any proposals which involved a further subsidy could hardly be regarded as in complete agreement with the terms of the report, and announced that he could not consent to any further financial assistance for the industry by way of a subsidy in aid of wages.

The proposals were later submitted to the miners' district organizations, but were rejected by them. For a time the deadlock dragged along with neither party making any effort to end it, but on August 16 the miners held a national delegate conference, at which the executive committee was authorized to try to open up negotiations with the coal owners and the Government; it was stipulated, however, that all negotiations must be of a national character and not entered into by the districts separately. On August 19 the miners' officials held a conference with the officials of the mine owners' association, but with no result. A meeting of the miners' officials with representatives of the Government was equally fruitless.

On September 2 a national delegate conference of the Miners' Federation authorized the executive committee to take whatever steps were necessary to "submit proposals for the setting up of a national agreement for the mining industry." In pursuance of this vote, the officials at once wrote to the Chancellor of the Exchequer (the Prime Minister at that time being away), asking him to convene and attend a conference of the miners' and the owners' officials, and stated the concession they were willing to make, as follows:

We are prepared to enter into negotiations for a new national agreement with a view to a reduction in labor costs to meet the immediate necessities of the industry.

The Government promptly wrote to the owners' association, inclosing a copy of the miners' letter, and stating that "in the opinion of His Majesty's Government this letter affords a basis for the resumption of negotiations; and they suggest that in the first instance both sides should meet representatives of the Government in a tripartite conference." To this the owners' association replied through its secretary that it could not deal with the matter, "as it has no authority to enter into any discussions or negotiations on behalf of the district colliery owners' associations on questions of the terms of employment of workmen." The Government then asked the representatives of the owners' association to meet with its representative to discuss the situation, and the meeting took place on September 6. The Chancellor of the Exchequer pressed the importance of seeking a settlement through national negotiations, and the secretary of the owners' association said "that the general opinion of mine owners was definitely opposed to national negotiations, and that the mining

association no longer had any authority to undertake them." He agreed, however, to refer the matter back to the association, which in turn referred it to the district associations for action. While this was being done the Chancellor of the Exchequer sent a letter to the association, outlining the kind of discussion he thought could usefully be carried on at a tripartite conference. Briefly, he suggested: (1) The laying down of certain broad principles and the recommendation of "practical steps necessary to secure an early and universal resumption of work; (2) district agreements to be negotiated in accordance with the principles and recommendations thus arrived at; (3) matters customarily settled nationally to be submitted to the central body for confirmation or for reference back to the districts; (4) a national agreement then to be made covering many, if not all, of the points hitherto dealt with nationally."

One point of difficulty no doubt will be how the national character of the minimum can be reconciled with the inevitable allowance for district conditions. We ought not to assume that this is insoluble with good will, once the parties are together. After prolonged thought His Majesty's Government believe that this is about the best and shortest path that can be found to reach the vital object in view, namely, a business like and honorable settlement for a good long time.

On September 13 an answer was received from the secretary of the owners' association, stating that the district associations, except for one small inland district, had emphatically refused to give the national association authority for making a national settlement, and that therefore it would be useless for the owners' representatives to attend the conference the Chancellor had proposed.

I desire to add that the decisions of the districts, which reaffirm the declarations made to you last Monday, arise from a deep and earnest conviction that settlements on a national basis by linking the industry with politics inevitably take the consideration of purely industrial questions out of their proper economic sphere, have been destructive of peace and prosperity to those engaged in the industry and, as experience of the immediate past has shown, are a menace to the community as a whole.

On the 14th the miners' representatives met and passed a resolution stating that in view of the owners' attitude the miners had no option but to resist district settlements, and to wait and see what action the Government would take upon the coal owners' refusal to confer.

On September 17 the Prime Minister, who had by this time returned to England, met the representatives first of the owners and then of the miners, and finally handed the latter a paper containing the following plan for the settlement of the dispute:

1. As soon as there has been a general resumption of work through provisional settlements arrived at by local negotiations, the Government will pass an act of Parliament setting up a national arbitration tribunal, unless the earlier conclusion of a national agreement renders it unnecessary.

2. Either party to any provisional settlement which provides for working more than the old hours may refer to the tribunal for review any matter dealt with by such settlement, being a matter of a kind which up to July, 1925, was customarily dealt with by national settlements.

3. The tribunal shall confirm or modify a provisional settlement in respect of the matter referred to it, and as from the date fixed by the tribunal every man affected by the award and employed in any pit which works more than the old hours will be entitled by law to receive wages in accordance with the decision.

To this the miners replied by a letter protesting against this proposal as an abandonment of the policy outlined by Mr. Churchill after receipt of the miners' offer of September 3.

It would now appear, though the federation is reluctant to believe it, that it was mistaken in taking the Chancellor's declaration seriously at all. On

September 17 the Government completely abandoned the policy which he announced on September 8 and advanced proposals of a diametrically opposite character.

Its latest announcement would involve, if it could be carried out, the entire surrender of the principle of national negotiations and agreements, a principle which the commission stated to be essential, and which was indorsed by the letter of the Chancellor of the Exchequer.

Thus the Government now proposes the miners are to resume work on such terms as the owners in each district may be in a position to dictate. In those districts in which, in accordance with the commission's recommendations, the hours worked prior to the stoppage are maintained, they are to receive no protection whatever from a national authority, however unreasonable the terms imposed by the owners may be.

In the remainder, after the scales have already been weighted against them by district agreements, they are to have an appeal to a national tribunal the construction of which the Government has not as yet thought fit to specify.

Such a proposal, in sharp contradiction as it is with the statement made by the Chancellor of the Exchequer, carries its condemnation on its face.

As a substitute for the Government proposals, the miners put forward the following plan:

1. The miners' executive are prepared to recommend the miners to accept wages not less than those payable under the terms of the 1921 agreement, as a temporary arrangement for the immediate resumption of work.

2. The terms of a national wages agreement shall be referred for decision to an independent tribunal to be agreed upon by the parties.

3. The terms of reference to the tribunal shall be the consideration of, and application to the mining industry of, the recommendations of the royal commission.

4. From the date fixed by the tribunal in respect to the matters referred to it every man affected by the award will be entitled by law to receive wages in accordance with the decision.

On the 20th, after a cabinet meeting, the miners' secretary was notified that the Government was unwilling to accept these terms as a basis of action:

While recognizing the advance which the proposals indicate, His Majesty's Government do not feel that they afford the means of reaching an early or lasting settlement of the present dispute.

In these circumstances I am to say that the Government are not prepared to go beyond the maturely considered proposals conveyed to you in the Prime Minister's letter of the 17th inst.

The miners' representatives accordingly submitted the proposals of September 17 to the districts for action, the results to be reported to a delegate conference in London on October 7. On October 6, the Prime Minister sent a letter to the conference, recounting the circumstances of the offer and warning them that if it were not accepted by the 7th it must be regarded as withdrawn. The report made to the conference showed that the districts had rejected the proposals by a vote of 737,000 to 42,000. The conference accepted the report and passed resolutions demanding that the safety men should be withdrawn, urging an embargo on foreign coal and the discontinuance of the practice of working outcrops, calling for a trade-union congress to deal with raising funds for the miners by a general levy, and advocating an intensive campaign of propaganda. On the following day it was voted that no action should be taken upon this resolution until the districts had had an opportunity to vote upon it. By the 14th reports were received from the districts upholding the general policy of the resolution. Nevertheless, the only parts really acted upon were those relating to calling a trade-union congress and to the

campaign of propaganda. The latter was at once undertaken, and had a marked effect in checking the tendency in some parts of the coal fields to return to work, and in bringing out men who had already gone back.

On October 26 the general council of the Trades-Union Congress intervened, sending a small committee to interview the Government and discuss measures for reopening negotiations. On the 28th the miners' delegate conference met in London and sanctioned a peace move through the general council. On the following day a meeting was held between the mediators and the Chancellor of the Exchequer, who expressed the Government's willingness to open discussions on a national basis as soon as the miners should consent to district agreements on wages and hours. If the miners would yield that point, the form in which national principles should be secured would be a matter for discussion, and if the owners should refuse, the Government would be prepared to take legislative action. After prolonged discussions, this proposal was referred back to the miners' executives for approval.

Meanwhile, at a meeting of the Trades-Union Congress, the unions by an overwhelming majority pledged themselves to call on their members for a levy of a penny a day for each working day until the dispute should be settled, the proceeds of the levy to be paid over to the miners. It was estimated that this would raise between £50,000 and £62,000 a week.

On November 5 the miners notified the Government that "they had accepted the Government's conditions of willingness to enter on district negotiations if safeguards could be agreed upon."

The national principles on which the miners laid stress in their interview with the Government were: A national minimum percentage, the ratio of division of the proceeds, the method of ascertainment, the principles of recoupment, the definition of "other costs," and the continuance of the principle of subsistence wages to be fixed in the districts as under the old agreements. The miners do not ask for a high national minimum percentage; they would be content with a low figure above which each district could fix its minimum according to its economic condition.

Negotiations continued for some days, and on the 12th the Government handed the miners' executive a memorandum of the terms of settlement which it was willing to see enforced. The terms provided for a return to work on district settlements, hours being determined in each district by agreement between the men and owners. Permanent terms of employment should be settled by district boards. Six conditions were laid down as to what a "standard agreement" should contain, as follows:

1. A district board with an independent chairman.
2. Periodical determination of the trading results of the industry, ascertained jointly by accountants appointed by each side with provision for test audits and reference of any question arising therefrom to the independent chairman of the district board.
3. Periodical regulation of the district percentage in accordance with paragraph 2 above, the ratio of division of net proceeds being not less favorable to the owners than 87 and 13, and not less favorable to the miners than 85 and 15; and the net proceeds being ascertained in accordance with the third schedule of the national agreement of 1924.
4. A minimum percentage on a basis not less than the equivalent of 20 per cent on standard rates.
5. The payment of subsistence wages to low-paid day-wage men at the rate paid in April last until the pay next following January 31, 1927, and thereafter

at a rate to be determined by the district board or in default of agreement of the district board, by the independent chairman of that board.

6. A duration of at least three years, without prejudice to the variation of the district agreements by agreement between the parties thereto, or to any provision that it may contain for the alteration of any of its terms within that period by the district board, or, in default of agreement of the district board, by the independent chairman of that board.

Work was to be resumed on a temporary wage scale which, except in Northumberland, Durham, Cumberland and North Wales, should be "a general district percentage on basis rates not less than that prevailing on April 30, 1926, and in districts (other than the above) where there was a subsistence wage under clause 7 of the 1924 agreement, the same subsistence wage." The miners' federation was to do all it could to secure the speedy resumption of work by district settlements, and as soon as the Government was satisfied that this condition was complied with, it should introduce legislation providing for a national tribunal to which, in certain circumstances, an appeal could be made.

The Government \* \* \* undertake to introduce legislation by which any district agreement, other than a "standard" agreement, may, if it is on the basis of a longer underground working day than that prevailing in the district in April last, be made the subject of appeal, by either party to the agreement, to a national arbitral authority on any of the matters set out in paragraph 5 of this memorandum in respect of which it is less favorable to the party appealing than a "standard" agreement would be. No appeal will lie as respects any "standard" district agreement or any agreement made on the basis of an underground working day not longer than that prevailing in the district in April last.

The national arbitral authority will consist of such members of the Industrial Court (not having any connection with the coal mining industry) as the Minister of Labor may direct, and will be assisted by two assessors, one appointed by each of the parties to the appeal.

When an agreement is made the subject of appeal to the national arbitral authority, the authority may, in respect of the matter under appeal, make such modifications therein as they think fit within the standard conditions, or may, if they think fit, confirm it without modification. The agreement thereafter will have effect as approved by the national arbitral authority.

The act giving these powers to the national arbitral authority will have effect for six months only.

The Government also undertook, as part of the settlement, to take steps to prevent the recruiting of new men as miners so long as any were unemployed.

On the 13th the miners' delegate conference decided to refer these terms to the districts, with a recommendation that they be accepted. There was much difference of opinion as to whether or not this recommendation should be made, but it was finally carried by a vote of 432,000 to 352,000. The vote by districts was taken immediately, and by the 18th the returns showed that 315,000 had voted for acceptance of the terms and 460,000 against, a majority of 145,000 against. The adverse vote was particularly heavy in Scotland, South Wales, and Northumberland.

On the 21st, with these results before them, the miners' delegate conference recommended the workers to seek district agreements, based upon certain guiding principles which the conference laid down. In practice, it was found impossible to secure the owners' assent to these principles, and it became necessary for the men to negotiate local settlements on the best terms obtainable.

## Labor Turnover and Plant Policy

THE opinion that the degree of labor turnover in a particular plant is due primarily to general employment conditions and very little to the employment policies of the plant is expressed by Eugene Bengé, manager of industrial relations of the Atlantic Refining Co., writing in *Manufacturing Industries* for October, 1926.

The writer states that, according to his observations, "there is a much closer relationship of labor turnover with national employment conditions than with pension systems, insurance plans, welfare features, and other gestures of a friendly management."

In support of this opinion, he compares the recent trend of the labor turnover in his own company with the employment conditions in the State of Pennsylvania as a whole, and also with the total labor turnover of over 50 concerns in the city of Philadelphia, employing some 40,000 workers. In both of the comparisons, presented by the author in the form of charts, he finds a close relationship between the turnover curve of his own company, the curve of general employment conditions in the State, and the curve of turnover conditions in other plants of Philadelphia. Commenting on this relationship, the writer concludes:

The sharp drop in company turnover since the middle of 1923 has again been accompanied by a parallel drop in other industries in the city of Philadelphia. Is it not fair to conclude that labor turnover, at least as exhibited in our company, is a function of general economic forces to a far greater extent than is generally supposed?

# MINIMUM WAGE

## Report on Minimum Wage in Massachusetts

**T**HE State of Massachusetts is the only one whose minimum wage law was unaffected by the decisions of the Supreme Court as to the constitutionality of legislation of this general type. The law of this State is not binding in its effect, but parties failing to pay the prescribed standards are subject to being advertised in the press of the State, compliance being presumably procurable by the force of public opinion. The report of the division of minimum wage in the State department of labor and industries for the year ending November 30, 1925, gives account of various activities of the division in making investigations, establishing wage boards, and carrying out inspection for the enforcement of decrees. There are now in existence 17 decrees, each covering certain specific or related classes of work; 32 decrees have been issued in all since the law went into effect, July 1, 1913. All made prior to December 1, 1919, have been superseded by new decrees, the oldest decree being that for men's clothing and raincoats, effective February 1, 1920. Two other decrees that went into operation that year continue effective and also one of 1921, six of 1922, one of 1923, one of 1924, three of 1925, and two of 1926.

In making revisions rates have been advanced in every case except two. In the women's clothing factories (cloak, suit, skirt, dress, and waist shops) an order, effective May 15, 1922, fixes \$14 as a minimum rate in lieu of \$15.25, which had been fixed May 6, 1920; and the paper-box rate, effective May 15, 1922, is \$13.50 in lieu of the \$15.50 rate entered May 26, 1920. In some cases the revisions have included the combination of two lines for which separate orders had previously existed.

The highest rate is \$15.40 weekly for women employed in office and other building cleaners' occupation, effective February 1, 1921. Three rates effective in 1925 fixed a minimum of \$13 weekly, as did the latest rate (candy occupation, March 1, 1926). An order affecting women engaged in the manufacture of stationery goods and envelopes, effective January 1, 1926, fixed the minimum wage at \$13.75. No rate lower than \$13 exists, and no rate in excess of \$14 is found except that for office, etc., cleaners, above noted, and one for men's clothing and raincoat occupations (\$15).

Inspections have been made under 14 decrees and noncompliances advertised under 9.

The firms where publication has been necessary represent a very small proportion of those inspected under the decrees in question. In the case of retail stores the firms advertised represent 2.9 per cent of all of the firms inspected employing women; in the case of laundries, 5.3 per cent; paper-box factories, 3.1 per cent; and in the case of the other decrees under which it has been necessary to publish, from 0.3 to 2.5 per cent.

Attention is called to the fact that the supreme court of the State held in June, 1924, that no penalty could be assessed against a newspaper refusing to accept advertisements of noncompliance. Advertisements were carried in 1925 in 60 different newspapers throughout the State, the matter being carried apparently as any other advertising matter.

The last page of the report presents a conspectus of the various itemized cost-of-living budgets adopted by the different wage boards, December 1, 1919, to November 4, 1925. There is also included the budget for the first brush wage board (January, 1914) when a weekly total of \$8.71 was found. The various budgets printed ranged from \$13 (bread and bakery board, winter, 1924-25; candy board, autumn, 1925) to \$15.50 (paper box board, spring, 1920).

### Increases in Minimum Wage Rates in Saskatchewan <sup>1</sup>

**I**NCREASES in minimum wage rates are announced by the minimum wage board of Saskatchewan, affecting female employees in shops and stores and in laundries and factories, a third change affecting employees in mail-order houses. Experienced workers in shops and stores are to receive \$15 per week as a minimum instead of \$14 as previously, learners to receive not less than \$10 instead of \$7.50 for the first six months, \$12 for the second six months, and a minimum of \$13.50 for the third six months.

For females in laundries and factories the minimum rate for experienced workers is advanced from \$13 to \$14 per week, rates for learners remaining unchanged. Not less than the minimum of \$14 is to be paid to both experienced and inexperienced employees for any time in excess of 48 hours in any one week. The minimum wage for females employed in mail-order houses is now \$14 instead of \$13 as formerly, payable after one year's experience. The beginner's rate for the first six months is now \$9 and for the second six months \$11 per week instead of \$8 and \$10, respectively.

The new rates became effective September 21.

### Minimum Wage Law for Agricultural Workers in Uruguay <sup>2</sup>

**A**CCORDING to the provisions of the Uruguayan minimum wage law,<sup>3</sup> rural laborers between the ages of 18 and 55 engaged in agriculture or stock raising are to receive a minimum wage of 18 pesos <sup>4</sup> a month, or 72 centésimos a day, when employed by proprietors whose total productive land is assessed at more than 20,000 pesos. When the real property of the employer is assessed at more than 60,000 pesos the minimum rural wage shall be 20 pesos a month, or 80 centésimos a day.

<sup>1</sup> Public Service Monthly, Regina, October, 1926.

<sup>2</sup> Uruguay. Cronica de la Oficina Nacional del Trabajo. Montevideo, May, 1925, año I, Num. 1, pp.

9, 10.

<sup>3</sup> Law passed Feb. 15, 1923, and its regulative decree, Apr. 8, 1924.

<sup>4</sup> Peso at par=\$1.03; average exchange rate in September, 1926=\$1.

Agricultural workers 16 to 18 years of age and those over 55 are not to receive wages less than 15 pesos a month, or 60 centésimos a day.

Laborers over 16 suffering from a physical defect, organic disease, or similar disability, may be paid less than the minimum wage. In such cases the wage shall be fixed by the departmental council of administration or the auxiliary council of the district, with the advice of the local medical officer.

Rural laborers shall have Sundays free each week or a substitute free week day when exceptional circumstances necessitate work on Sunday.

In addition to the minimum wage the employer is required to furnish his workers with hygienic housing and sufficient food, or in lieu thereof the sum of 50 centésimos a day or 12 pesos a month. The worker is allowed to choose either the housing and food or the money compensation.

The decree provides that the workers' dwellings must be easily ventilated, weatherproof, and kept thoroughly clean at all times.

Employers violating any of the provisions of this law are liable to a fine of 10 pesos for each laborer involved and for a second offense a fine of 25 pesos.

# INDUSTRIAL ACCIDENTS AND HYGIENE

## Accident Experience of the Iron and Steel Industry to the End of 1925

THE Bureau of Labor Statistics' annual study of accidents in the iron and steel industry has just been completed for the year 1925. The results show a continuing decline in accident rates in 1925 as compared with 1924. This decline has been almost constant during the whole period of 16 years during which the bureau has been compiling such statistics.

There is, however, a marked difference between the experience of those plants in which energetic and continuous safety work has been carried on and those in which safety work has not been given such prominence. In the former group the reduction in accident frequency since 1913 has been approximately 86 per cent, while the reduction in the case of those plants in which safety work has not been so stressed has been only about 15 per cent.

### Measuring the Effects of Safety Work

THE records of the Bureau of Labor Statistics now cover the experience of the iron and steel industry for the period from 1910 to 1925. To illustrate what has happened in this interval, and also to show the results obtained by intensive accident-prevention effort, Tables 1 and 2 are presented.

Table 1 shows the accident experience of a group of plants in the iron and steel industry which produce approximately 50 per cent of the output, and which were not only among the first to undertake accident prevention, but have continued a safety campaign with great energy and persistence. Table 2 shows the accident experience of all the plants covered by the study, including the plants of Table 1 as well as another group in which safety work has been less emphasized.

The two tables are not identical in form but in a general way they are comparable. Table 1 is on an annual basis, while Table 2 is for periods of five years.

If the rates in the total column of Table 1 for the year ending with December, 1913, be compared with the rates for all departments in Table 2 for the 5-year period ending with 1913 it will be noted that the frequency rates are 60.3 for Table 1 and 62.1 for Table 2. That is to say, up to the time indicated the results in the section represented by the selected plants in Table 1 were but slightly more satisfactory than in the industry at large, including those special plants. Computing the rate for that half of the industry not included in Table 1, it is found to be 63.9. This compared with 60.3, the rate

for plants grouped in Table 1, gives an idea of the progress made at that time by concerns most actively engaged in accident prevention as compared with those which had more recently, and in some cases not yet, undertaken an effort for safety.

If the figures for the year ending December, 1925, and the 5-year period ending with 1925 are compared it will be found that Table 1 shows a frequency of 8.2 while a computation for the portion not included in Table 1 gives a frequency of 54.4. In other words, the portion of the industry which has devoted most attention to accident prevention has made an 86 per cent reduction while the portion of the industry not included in Table 1 has made a 15 per cent reduction.

The fact that one table is on an annual and the other on a 5-year basis makes this comparison somewhat unfair to the plants shown only on the 5-year basis. It is safe to say, however, that in the companies which have undertaken the task of accident prevention most seriously the results have been the most striking. The important thing is that a similar result is possible to any plant which is willing to make a corresponding effort.

TABLE 1.—ACCIDENT FREQUENCY RATES (PER 1,000,000 HOURS' EXPOSURE) FOR A GROUP OF IRON AND STEEL PLANTS IN WHICH SAFETY WORK HAS BEEN STRESSED, BY PRODUCTS AND BY YEARS, 1913 TO 1925

Year ending—	Fabrication	Sheets	Wire	Tubes	Miscellaneous steel products		Total
					Group A	Group B	
December, 1913.....	100.3	61.6	59.3	27.2	70.9	41.3	60.3
June, 1914.....	75.5	53.7	51.0	19.1	62.8	33.3	51.6
December, 1914.....	59.0	47.2	46.2	12.5	50.7	27.6	43.5
June, 1915.....	51.2	41.8	44.3	8.7	42.7	23.3	38.0
December, 1915.....	53.5	37.3	52.4	10.8	51.9	23.0	41.5
June, 1916.....	51.5	36.5	52.2	12.2	62.7	27.0	44.7
December, 1916.....	52.1	34.0	48.2	12.4	67.6	28.2	44.4
June, 1917.....	53.3	32.3	42.6	11.5	62.2	24.5	40.5
December, 1917.....	51.3	33.9	32.5	10.2	51.3	20.5	34.5
June, 1918.....	45.7	31.3	24.6	9.9	45.2	24.3	31.1
December, 1918.....	38.2	25.9	18.8	9.1	42.0	31.4	28.8
June, 1919.....	33.6	24.4	15.4	8.7	40.7	28.4	27.1
December, 1919.....	32.8	23.8	12.5	9.1	39.7	23.0	26.1
June, 1920.....	35.3	25.0	12.2	9.2	38.0	21.2	25.0
December, 1920.....	35.3	22.7	12.0	8.9	35.3	18.6	22.9
June, 1921.....	32.4	20.2	9.3	7.3	27.6	15.5	18.7
December, 1921.....	28.4	17.5	7.5	6.1	15.8	12.1	13.2
June, 1922.....	29.7	16.8	7.9	6.4	13.1	10.9	12.3
December, 1922.....	38.8	16.9	7.9	7.1	14.5	10.8	13.0
June, 1923.....	33.2	19.0	7.9	7.7	14.3	10.3	13.3
December, 1923.....	32.6	17.2	7.9	7.0	13.9	9.8	12.7
June, 1924.....	34.7	12.9	7.4	6.0	13.5	9.1	11.6
December, 1924.....	33.4	10.3	6.2	5.1	11.8	7.9	10.2
June, 1925.....	28.8	10.6	4.4	4.4	10.3	5.2	8.7
December, 1925.....	27.4	11.4	4.2	4.0	9.8	3.7	8.2

TABLE 2.—ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, BY DEPARTMENTS AND BY 5-YEAR PERIODS

*Frequency rates (per 1,000,000 hours' exposure)*

Period	All departments	Blast furnaces	Bessemer converters	Open hearth	Foundries	Heavy rolling mills	Plate mills	Sheet mills
1907 to 1911.....	69.2	76.1	101.5	84.2	60.1	61.0	69.4	44.1
1908 to 1912.....	65.1	67.7	79.5	79.5	61.5	57.0	60.8	47.9
1909 to 1913.....	62.1	62.4	92.3	78.6	65.1	51.7	55.9	49.1
1910 to 1914.....	59.2	62.3	89.8	75.0	63.6	46.1	49.9	51.1
1911 to 1915.....	53.3	50.3	65.0	67.6	59.3	39.4	44.7	48.1
1912 to 1916.....	51.3	47.8	76.1	64.8	57.8	37.3	41.5	47.4
1913 to 1917.....	48.2	41.4	68.3	58.4	60.4	32.1	36.6	41.3
1914 to 1918.....	43.6	40.5	60.7	53.5	57.0	31.1	39.8	35.8
1915 to 1919.....	41.6	39.0	57.7	50.5	61.0	32.4	39.2	32.7
1916 to 1920.....	41.1	38.0	53.1	50.2	61.0	31.4	38.4	33.7
1917 to 1921.....	39.5	36.3	47.0	44.8	63.1	29.9	37.6	33.4
1918 to 1922.....	36.5	34.0	39.9	41.3	60.4	27.6	36.7	35.2
1919 to 1923.....	34.9	32.9	30.5	33.0	62.7	23.8	31.4	37.2
1920 to 1924.....	33.6	30.7	24.9	32.9	61.7	21.2	29.4	35.1
1921 to 1925.....	31.3	29.0	17.0	29.9	63.1	18.1	26.8	33.2

*Severity rates (per 1,000 hours' exposure)*

1907 to 1911.....	5.0	10.6	7.6	7.5	2.7	4.4	5.1	3.1
1908 to 1912.....	4.3	8.8	7.4	6.6	3.1	4.2	4.1	2.8
1909 to 1913.....	4.4	8.3	6.7	6.8	3.5	4.0	3.8	3.0
1910 to 1914.....	4.1	7.0	6.4	6.6	3.6	3.6	3.9	2.6
1911 to 1915.....	3.6	6.2	5.3	5.8	3.3	3.4	3.1	2.2
1912 to 1916.....	3.7	5.8	6.1	5.5	3.1	3.5	2.8	2.3
1913 to 1917.....	3.7	5.6	7.1	5.1	3.3	3.6	2.6	2.1
1914 to 1918.....	3.5	5.4	7.3	5.8	3.2	3.4	2.6	1.8
1915 to 1919.....	3.6	5.8	6.9	6.5	3.4	3.9	2.5	1.5
1916 to 1920.....	3.5	5.7	6.3	6.3	3.2	3.5	2.6	1.8
1917 to 1921.....	3.4	5.7	5.4	5.8	3.2	3.3	2.5	1.7
1918 to 1922.....	3.1	5.5	4.2	5.3	2.7	2.9	2.5	1.8
1919 to 1923.....	3.0	5.0	3.2	4.2	2.7	2.4	2.4	1.9
1920 to 1924.....	2.8	4.5	2.6	4.2	2.8	2.3	2.4	2.1
1921 to 1925.....	2.7	4.6	3.2	4.0	3.1	2.6	2.6	1.9

Tables 3 and 4 are derived from information regarding the group of iron and steel plants included in Table 1. These tables give accident frequency rates (per 1,000,000 hours' exposure), by causes, from 1913 to 1925. Table 3 records changes from year to year in the items of the standard classification of accident causes. There is not a single case in which the rate for 1925 is not lower than that for 1913, usually very much lower. The important rôle still played by machinery in accident experience is indicated by the first line of the table. In every such compilation the frequency of accidents due to handling is in excess of that from any other cause. The percentages of decrease from 1913 to 1925 for the main groups of the cause classification are as follows: Machinery, 78 per cent; vehicles, 87 per cent; hot substances, 89 per cent; falls of person, 76 per cent; handling, 87 per cent; unclassified, 91 per cent. Table 4 gives the relation between the several production groups in the year 1925 and the period 1913 to 1925, by cause.

TABLE 3.—ACCIDENT FREQUENCY RATES (PER 1,000,000 HOURS' EXPOSURE) IN A PORTION OF THE IRON AND STEEL INDUSTRY, 1913 TO 1925, BY YEARS AND CAUSES

Accident cause	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1913 to 1925
<b>Machinery</b> .....	<b>7.3</b>	<b>5.0</b>	<b>4.9</b>	<b>5.4</b>	<b>4.5</b>	<b>4.0</b>	<b>3.3</b>	<b>3.4</b>	<b>1.8</b>	<b>2.2</b>	<b>2.3</b>	<b>2.6</b>	<b>1.6</b>	<b>3.7</b>
Working machines.....	3.8	2.7	2.6	2.6	2.0	1.8	1.4	1.5	.8	1.1	1.0	.8	.7	1.7
Caught in.....	2.5	1.8	1.7	1.7	1.2	1.1	.9	1.0	.6	.8	.7	.6	.5	1.2
Breakage.....	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	(1)	(1)	(1)	.1
Moving material in.....	1.2	.8	.8	.8	.7	.6	.4	.4	.1	.3	.2	.2	.2	.4
Cranes, etc.....	3.5	2.3	2.3	2.8	2.5	2.2	1.9	1.9	1.0	1.2	1.3	1.2	.9	2.0
Overhead.....	2.8	1.9	2.0	2.5	2.2	1.9	1.6	1.5	.8	1.0	1.1	.9	.7	1.6
Locomotive.....	.3	.2	.2	.2	.2	.2	.2	.2	.2	.1	.1	.1	.1	.2
Other hoisting apparatus.....	.4	.2	.1	.1	.1	.1	.1	.2	.1	.1	.1	.1	.1	.2
<b>Vehicles</b> .....	<b>2.3</b>	<b>1.9</b>	<b>1.6</b>	<b>1.7</b>	<b>1.7</b>	<b>1.3</b>	<b>1.2</b>	<b>1.1</b>	<b>.5</b>	<b>.4</b>	<b>.6</b>	<b>.5</b>	<b>.3</b>	<b>1.1</b>
<b>Hot substances</b> .....	<b>5.4</b>	<b>3.6</b>	<b>3.7</b>	<b>4.5</b>	<b>3.6</b>	<b>3.0</b>	<b>2.8</b>	<b>2.5</b>	<b>1.2</b>	<b>1.1</b>	<b>1.2</b>	<b>.9</b>	<b>.6</b>	<b>2.6</b>
Electricity.....	.5	.4	.2	.4	.3	.3	.2	.3	.1	.1	(1)	(1)	(1)	.2
Hot metal.....	3.6	2.1	2.3	3.0	2.5	2.1	2.0	1.8	.8	.7	.9	.6	.4	1.8
Hot water, etc.....	1.3	1.1	1.2	1.1	.8	.6	.6	.4	.2	.3	.2	.2	.1	.6
<b>Falls of persons</b> .....	<b>4.5</b>	<b>4.1</b>	<b>3.5</b>	<b>3.7</b>	<b>3.2</b>	<b>2.8</b>	<b>2.8</b>	<b>2.5</b>	<b>1.7</b>	<b>1.5</b>	<b>1.4</b>	<b>1.4</b>	<b>1.1</b>	<b>2.6</b>
From ladders.....	.3	.1	.1	.1	.1	.2	.1	.1	.1	.1	.1	.1	(1)	.1
From scaffolds.....	.2	.2	.2	.2	.3	.2	.2	.2	.1	.1	.1	.1	.1	.2
Into openings.....	.2	.1	.1	.3	.2	.1	.1	.1	.1	(1)	(1)	(1)	(1)	.2
Due to insecure footing.....	3.8	3.7	3.1	3.1	2.6	2.3	2.3	2.1	1.4	1.3	1.1	1.1	.9	2.1
<b>Falling material, not otherwise specified</b> .....	<b>1.2</b>	<b>.7</b>	<b>.7</b>	<b>.6</b>	<b>.4</b>	<b>.3</b>	<b>.4</b>		<b>.1</b>	<b>.1</b>	<b>.1</b>	<b>.1</b>	<b>.1</b>	<b>.4</b>
<b>Handling</b> .....	<b>26.7</b>	<b>19.4</b>	<b>20.6</b>	<b>21.5</b>	<b>15.7</b>	<b>12.8</b>	<b>11.7</b>	<b>10.4</b>	<b>6.5</b>	<b>5.8</b>	<b>5.5</b>	<b>3.9</b>	<b>3.4</b>	<b>12.5</b>
Dropped in handling.....	11.2	7.3	7.6	8.4	6.1	5.5	5.0	4.4	2.6	2.6	2.3	1.9	1.5	5.1
Caught between.....	3.4	2.6	2.6	3.1	2.1	1.7	1.7	1.3	.7	.7	.7	.5	.4	1.6
Trucks.....	1.9	1.0	1.4	1.4	1.2	.9	.7	.6	.5	.4	.4	.2	.2	.8
Lifting.....	2.5	2.3	2.5	2.5	2.0	1.4	1.4	1.1	.8	.8	.5	.3	.3	1.4
Flying from tools.....	.2	.2	.1	.1	.1	.1	.1	.1	.1	.1	(1)	(1)	(1)	.1
Sharp points and edges.....	3.8	3.4	3.8	3.1	2.2	1.5	1.3	1.5	1.1	.6	.6	.3	.4	1.8
Tools.....	3.7	2.6	2.6	2.9	2.0	1.7	1.4	1.4	.8	.7	.8	.6	.5	1.6
<b>Miscellaneous</b> .....	<b>12.9</b>	<b>8.8</b>	<b>6.5</b>	<b>7.0</b>	<b>5.4</b>	<b>4.6</b>	<b>4.1</b>	<b>3.1</b>	<b>1.3</b>	<b>1.9</b>	<b>1.8</b>	<b>1.6</b>	<b>1.1</b>	<b>4.3</b>
Asphyxiating gas.....	.3	.2	.1	.1	.1	.1	.2	.1	.5	(1)	(1)	(1)	(1)	.1
Flying, not striking eye.....	.8	.6	.6	.5	.4	.5	.3	.3	.2	.1	.3	.2	.1	.4
Flying, striking eye.....	2.9	2.1	1.7	1.9	1.6	1.6	1.3	1.1	.5	.4	.2	.3	.2	1.2
Heat.....	.9	.8	.4	.4	.1	.2	.1	.1	.1	(1)	(1)	(1)	(1)	.2
Other.....	8.0	5.1	3.7	4.1	3.2	2.2	2.2	1.5	.6	1.3	1.1	1.0	.8	2.4
<b>Grand total</b> .....	<b>60.3</b>	<b>43.5</b>	<b>41.5</b>	<b>44.4</b>	<b>34.5</b>	<b>28.8</b>	<b>26.3</b>	<b>22.0</b>	<b>13.3</b>	<b>13.0</b>	<b>12.8</b>	<b>10.2</b>	<b>8.2</b>	<b>27.2</b>

<sup>1</sup> Less than one-tenth of 1 per cent.

TABLE 4.—ACCIDENT FREQUENCY RATES IN A SECTION OF THE IRON AND STEEL INDUSTRY, 1925 AND 1913 TO 1925, BY CAUSES AND PRODUCTS

1925

Cause	Fabrication	Sheets	Wire	Tubes	Miscellaneous steel products		Total
					Group A	Group B	
<b>Machinery</b> .....	8.6	1.2	1.2	1.2	1.5	0.9	1.6
<b>Working machines</b> .....	2.6	.5	.9	.6	.7	.3	.7
Caught in.....	2.0	.5	.6	.4	.4	.2	.5
Breakage.....	.2		(1)	(1)	.1	(1)	(1)
Moving material in.....	.4		.3	.2	.2	(1)	.2
<b>Cranes, etc.</b> .....	6.0	.7	.3	.6	.8	.6	.9
Overhead.....	3.7	.6	.2	.4	.7	.6	.7
Locomotive.....	1.5		1.	.1	.1	(1)	.1
Other hoisting apparatus.....	.8	.1	(1)	.1	.1	(1)	.1
<b>Vehicles</b> .....	.2	.1	.2	.2	.7	.2	.3
<b>Hot substances</b> .....	.9	.6	.3	.4	1.0	.4	.6
Electricity.....	(1)	.1	(1)	(1)	.1	(1)	(1)
Hot metal.....	.9	.2	.3	.3	.7	.3	.4
Hot water, etc.....		.3	(1)	.1	.2	.1	.1
<b>Falls of persons</b> .....	3.4	1.3	.5	.5	1.3	.5	1.1
From ladders.....	(1)	.1	(1)	(1)	(1)	(1)	(1)
From scaffolds.....	.7	(1)	.1	(1)	.1	.1	.1
Into openings.....			(1)	(1)	.1		(1)
Due to insecure footing.....	2.7	1.2	.4	.4	1.1	.4	.9
<b>Falling material, not otherwise specified</b> .....				.1	.1	.1	.1

<sup>1</sup> Less than one-tenth of 1 per cent.

TABLE 4.—ACCIDENT FREQUENCY RATES IN A SECTION OF THE IRON AND STEEL INDUSTRY, 1925 AND 1913 TO 1925, BY CAUSES AND PRODUCTS—Continued

Cause	1925						
	Fabrication	Sheets	Wire	Tubes	Miscellaneous steel products		Total
					Group A	Group B	
<b>Handling</b> .....	<b>11.2</b>	<b>6.0</b>	<b>1.2</b>	<b>1.2</b>	<b>3.9</b>	<b>1.3</b>	<b>3.4</b>
Dropped in handling.....	5.1	1.7	.5	.7	2.2	.6	1.5
Caught between.....	1.5	.8	(1)	.2	.4	.3	.4
Trucks.....	.6	.6	.2	.1	.1	(1)	.2
Lifting.....	1.7	.3	.2	(1)	.3	.2	.3
Flying from tools.....	.1	(1)	.....	(1)	(1)	(1)	(1)
Sharp points and edges.....	.3	1.7	.1	(1)	.3	.1	.4
Tools.....	1.9	.9	.2	.1	.6	.2	.5
<b>Miscellaneous</b> .....	<b>3.1</b>	<b>2.2</b>	<b>.7</b>	<b>.4</b>	<b>1.4</b>	<b>.3</b>	<b>1.1</b>
Asphyxiating gas.....	(1)	.....	.....	(1)	.1	(1)	(1)
Flying, not striking eye.....	.5	.1	.1	(1)	.2	(1)	.1
Flying, striking eye.....	.8	.3	.1	(1)	.2	.1	.2
Heat.....	.2	.....	(1)	(1)	.1	(1)	(1)
Other.....	1.6	1.8	.5	.2	.8	.2	.8
<b>Grand total</b> .....	<b>27.4</b>	<b>11.4</b>	<b>4.2</b>	<b>4.0</b>	<b>9.8</b>	<b>3.7</b>	<b>8.2</b>
Workers.....	8,747	25,647	23,109	26,894	46,400	25,919	156,716
<b>1913 to 1925</b>							
<b>Machinery</b> .....	<b>9.8</b>	<b>2.5</b>	<b>3.7</b>	<b>6.2</b>	<b>4.1</b>	<b>3.5</b>	<b>3.7</b>
<b>Working machines</b> .....	<b>3.3</b>	<b>1.3</b>	<b>3.0</b>	<b>3.3</b>	<b>1.5</b>	<b>1.2</b>	<b>1.7</b>
Caught in.....	2.7	1.1	1.8	2.1	.9	.7	1.2
Breakage.....	.2	.1	.1	.2	.1	.1	.1
Moving material in.....	.4	.1	1.1	1.0	.5	.4	.4
<b>Cranes, etc</b> .....	<b>6.5</b>	<b>1.2</b>	<b>.7</b>	<b>2.9</b>	<b>2.6</b>	<b>2.3</b>	<b>2.0</b>
Overhead.....	5.3	1.2	.5	2.2	2.2	1.8	1.6
Locomotive.....	.4	(1)	.1	.5	.2	.4	.2
Other hoisting apparatus.....	.8	(1)	.1	.2	.2	.1	.2
<b>Vehicles</b> .....	<b>.7</b>	<b>.3</b>	<b>.5</b>	<b>1.5</b>	<b>2.4</b>	<b>.8</b>	<b>1.1</b>
<b>Hot substances</b> .....	<b>1.4</b>	<b>1.8</b>	<b>1.9</b>	<b>2.9</b>	<b>4.4</b>	<b>2.5</b>	<b>2.6</b>
Electricity.....	.2	.1	.1	.2	.4	.3	.2
Hot metal.....	1.1	.7	1.0	2.2	3.3	1.9	1.8
Hot water, etc.....	.1	1.0	.8	.5	.7	.3	.6
<b>Falls of person</b> .....	<b>4.7</b>	<b>2.7</b>	<b>2.0</b>	<b>2.9</b>	<b>3.6</b>	<b>2.0</b>	<b>2.6</b>
From ladders.....	.2	.1	.1	.2	.1	.1	.1
From scaffolds.....	.7	(1)	.1	.3	.2	.2	.2
Into openings.....	.1	.1	.1	.2	.2	.1	.1
Due to insecure footing.....	3.7	2.5	1.7	2.2	3.1	1.6	2.2
<b>Falling material, not otherwise specified</b> .....	<b>.7</b>	<b>.1</b>	<b>.4</b>	<b>.4</b>	<b>.6</b>	<b>.3</b>	<b>.4</b>
<b>Handling</b> .....	<b>21.2</b>	<b>14.3</b>	<b>11.9</b>	<b>12.0</b>	<b>17.1</b>	<b>7.3</b>	<b>12.5</b>
Dropped in handling.....	9.0	4.1	3.0	6.3	8.2	3.9	5.1
Caught between.....	4.6	1.1	1.1	1.5	2.3	1.2	1.6
Trucks.....	1.1	1.3	1.4	1.0	.7	.3	.8
Lifting.....	1.6	1.1	2.2	.9	2.0	.6	1.4
Flying from tools.....	.4	.1	.1	.1	.1	.1	.1
Sharp points and edges.....	1.0	4.9	2.8	.7	1.4	.3	1.8
Tools.....	3.5	2.0	1.3	1.5	2.5	.9	1.6
<b>Miscellaneous</b> .....	<b>6.6</b>	<b>5.2</b>	<b>4.4</b>	<b>3.5</b>	<b>5.3</b>	<b>3.8</b>	<b>4.3</b>
Asphyxiating gas.....	(1)	(1)	(1)	.1	.2	.2	.1
Flying, not striking eye.....	.9	.1	.3	.3	.5	.4	.4
Flying, striking eye.....	2.9	.9	.7	.8	1.6	1.9	1.2
Heat.....	.1	.4	.1	.2	.4	.1	.2
Other.....	2.7	3.7	3.3	2.1	2.6	1.2	2.4
<b>Grand total</b> .....	<b>45.1</b>	<b>26.9</b>	<b>24.9</b>	<b>29.4</b>	<b>37.5</b>	<b>20.2</b>	<b>27.2</b>

<sup>1</sup> Less than one-tenth of 1 per cent.

Table 5 presents the usual annual review of the departments of the industry. Three 5-year periods are shown and the first year of the fourth period.

The industry as a whole makes a very consistent record of steady reduction both in frequency and severity. The rate of change is growing less as time goes on. For example: From the first 5-year period to the second the decline in frequency is 30 per cent; from the second to the third it is 19 per cent; and from the third to 1925, 16 per cent.

The majority of the individual departments show reduced rates. A notable exception is the foundries. This department has kept almost identical rates from year to year in spite of the fact that important concerns, when considered separately, show the usual decline. It certainly is not necessary that foundries should continue to have so high a rate.

It will be noted that in most of the departments the severity rate is much more irregular than the frequency rate. This is necessarily the case. Frequency is based on items which have a common value and so influence the rate in the same degree. A death has the same effect on the frequency rate as disability for one day. In severity, however, a death influences the rate 6,000 times as much as a one-day disability does.

Death is fortunately of relatively rare occurrence but when it does occur has a very pronounced influence on the severity rate. This may be illustrated by the plate mill department. These mills had from 1910 to 1924 an almost uniform decline in accident frequency from period to period. In no year did more than 5 deaths occur and in 1924 there were but 3. Then in 1925 there were 6 deaths. The frequency continued to decline but severity went up to a point nearly as high as that shown for the period 1910 to 1914.

Wire drawing is notable for the high severity of permanent disability. In a majority of departments the severity rate for death is in excess of permanent and temporary disability taken together. In wire drawing the higher severity rate is found in permanent disability. This is doubtless due to the hazard of becoming entangled in the wire, which may easily result in the loss of a hand or other severe injury.

Internal transportation continues to be a serious problem. Accident frequency in the yards has changed for the better very materially and accident severity has become less, but not very much, and still remains high.

A small department with a high rate is that of docks and ore yards. It might be supposed that the high rates were exceptional and related to the small exposure if it were not for the fact of constancy of the rates from period to period.

Since 1912 a continuous record has been maintained of a group of structural-iron workers numbering about 1,000. While there has been a marked improvement, the hazards are evidently extreme, since in every period for which it has been possible to compute rates this department has a higher rate than any other unless it be logging. It has not been possible to study the rate for logging on a large enough scale and for a long enough time to warrant any very positive conclusions.

The structural-steel workers had in the period 1912 to 1914 a frequency rate of 121.7 and a severity rate of 31.4. Inspection of the other departments will show that this is the highest rate found anywhere. In 1925 the rates were: Frequency, 71.2; severity, 22.4. This is a decline of 41 per cent in frequency and 29 per cent in severity. This is a substantial decrease, but not equal to those to be found in other hazardous departments.

TABLE 5.—ACCIDENT FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY, 1910 TO 1925, BY DEPARTMENTS AND PERIODS

Period	Equiv- alent full- year workers	Number of cases			Accident frequency rates (per 1,000,000 hours' exposure)				Accident severity rates (per 1,000 hours' ex- posure)				
		Death	Perma- nent disabil- ity	Tempo- rary disabil- ity	Total	Death	Perma- nent disabil- ity	Tempo- rary disabil- ity	Total	Death	Perma- nent disabil- ity	Tempo- rary disabil- ity	Total
All departments													
1910 to 1914...	1,310,911	1,524	5,080	226,305	232,954	0.4	1.3	57.5	59.2	2.3	1.1	0.7	4.1
1915 to 1919...	1,545,706	1,731	4,469	186,532	192,732	.4	1.0	40.2	41.6	2.2	.8	.6	3.6
1920 to 1924...	1,839,818	1,345	4,810	179,128	185,277	.2	.9	32.5	33.6	1.5	.8	.5	2.8
1925.....	445,223	277	1,091	36,404	37,772	.2	.8	27.3	28.3	1.2	.8	.4	2.5
Blast furnaces													
1910 to 1914...	126,582	324	366	22,578	23,268	0.9	1.0	60.4	62.3	5.2	1.0	0.8	7.0
1915 to 1919...	133,166	317	312	15,287	15,916	.8	.8	37.4	39.0	4.7	.9	.5	6.1
1920 to 1924...	123,854	211	251	10,910	11,372	.6	.7	29.4	30.7	3.4	.7	.5	4.5
1925.....	25,819	40	51	1,789	1,880	.5	.7	23.1	24.3	3.1	.9	.4	4.4
Bessemer converters													
1910 to 1914...	28,101	57	146	7,367	7,570	0.7	1.7	87.4	89.8	4.0	1.1	1.3	6.4
1915 to 1919...	25,645	62	112	4,262	4,436	.8	1.5	55.4	57.7	4.8	1.1	1.0	6.9
1920 to 1924...	26,147	24	53	1,876	1,953	.3	.7	23.9	24.9	1.8	.4	.4	2.6
1925.....	4,834	9	10	115	134	.6	.7	7.9	9.2	3.7	.7	.2	4.6
Open hearth													
1910 to 1914...	71,293	143	333	15,809	16,285	0.7	1.5	72.8	75.0	4.0	1.6	1.0	6.6
1915 to 1919...	86,175	191	317	12,563	13,071	.7	1.2	48.6	50.5	4.4	1.2	.9	6.5
1920 to 1924...	107,820	148	278	10,191	10,617	.5	.9	31.5	32.9	2.7	.9	.6	4.2
1925.....	22,837	25	73	1,769	1,867	.4	1.1	25.8	27.3	2.2	1.0	.5	3.7
Foundries													
1910 to 1914...	95,917	84	449	17,765	18,298	0.3	1.6	61.7	63.6	1.8	1.1	0.7	3.6
1915 to 1919...	92,746	84	227	16,604	16,965	.3	1.0	59.7	61.0	1.8	.9	.7	3.4
1920 to 1924...	149,441	81	459	27,569	28,109	.2	1.0	61.5	62.7	1.1	.9	.8	2.8
1925.....	35,570	27	128	6,877	7,032	.3	1.2	64.5	65.9	1.5	1.3	.9	3.7
Bar mills													
1915 to 1919...	24,081	20	77	4,745	4,842	0.3	1.1	65.6	67.0	1.7	0.7	0.7	3.1
1920 to 1924...	17,666	10	44	1,869	1,923	.2	.8	35.3	36.3	1.1	.6	.5	2.2
1925.....	4,471	2	13	324	339	.2	1.0	24.2	25.3	.9	.9	.4	2.2
Heavy rolling mills													
1910 to 1914...	67,663	74	261	9,007	9,342	0.4	1.3	44.4	46.1	2.1	0.9	0.6	3.6
1915 to 1919...	75,166	91	275	6,950	7,316	.4	1.2	30.8	32.4	2.4	1.9	.5	3.9
1920 to 1924...	74,944	50	180	4,546	4,776	.2	.8	20.2	21.2	1.3	.6	.4	2.3
1925.....	16,553	13	50	747	810	.3	1.0	15.0	16.3	1.6	1.1	.3	3.0

TABLE 5.—ACCIDENT FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY, 1910 TO 1925, BY DEPARTMENTS AND PERIODS—Continued

Period	Equivalent full-year workers	Number of cases				Accident frequency rates (per 1,000,000 hours' exposure)				Accident severity rates (per 1,000 hours' exposure)			
		Death	Perma-nent disabil-ity	Tempo-rary disabil-ity	Total	Death	Perma-nent disabil-ity	Tempo-rary disabil-ity	Total	Death	Perma-nent disabil-ity	Tempo-rary disabil-ity	Total
Plate mills													
1910 to 1914...	27,711	19	105	3,129	3,253	0.3	1.6	48.0	49.9	1.8	1.4	0.7	3.6
1915 to 1919...	35,073	25	89	4,016	4,130	.2	.8	38.2	39.2	1.4	.6	.5	2.5
1920 to 1924...	37,891	22	98	3,214	3,334	.2	.9	28.3	29.4	1.2	.8	.4	2.4
1925.....	5,734	6	15	370	391	.4	.9	21.5	22.7	2.1	1.2	.4	3.7
Puddling mills													
1917 to 1919...	8,460	4	15	1,082	1,101	0.2	0.6	42.6	43.4	0.9	0.4	0.6	1.9
1920 to 1924...	4,406	-----	9	797	806	-----	.7	60.3	61.0	-----	.8	1.1	1.9
1925.....	1,108	-----	6	166	172	-----	1.8	49.9	51.7	-----	2.8	.9	3.7
Rod mills													
1915 to 1919...	15,218	14	70	1,721	1,805	0.3	1.5	37.7	39.5	1.8	1.3	0.5	3.6
1920 to 1924...	14,425	4	37	982	1,023	.1	.9	22.7	23.7	.6	.8	.4	1.7
1925.....	2,907	2	7	146	155	.2	.8	16.7	17.8	1.4	1.0	.3	2.7
Sheet mills													
1910 to 1914...	128,423	88	308	19,262	19,658	0.2	0.9	50.0	51.1	1.4	0.6	0.6	2.6
1915 to 1919...	104,335	37	172	10,034	10,243	.1	.5	32.1	32.7	.7	.4	.4	1.5
1920 to 1924...	121,552	50	278	12,479	12,807	.1	.8	34.2	35.1	.8	.7	.6	2.1
1925.....	32,043	10	56	3,096	3,162	.1	.6	32.2	32.9	.6	.5	.6	1.7
Tube mills													
1910 to 1914...	73,338	36	249	8,623	8,908	0.2	1.1	39.2	40.5	1.0	0.7	0.5	2.2
1915 to 1919...	75,108	38	178	4,825	5,041	.2	.8	21.4	22.4	1.0	.5	.3	1.8
1920 to 1924...	104,577	45	268	6,815	7,128	.1	.9	21.7	22.7	.9	.6	.4	1.9
1925.....	25,511	10	64	1,142	1,216	.1	.8	14.9	15.9	.8	.6	.3	1.7
Unclassified rolling mills													
1910 to 1914...	104,829	82	360	21,501	21,943	0.3	1.2	71.8	73.3	1.7	1.1	0.9	3.7
1915 to 1919...	102,696	53	218	12,644	12,915	.2	.7	41.0	41.9	1.0	.5	.6	2.1
1920 to 1924...	109,555	55	345	12,631	13,027	.2	1.0	38.4	39.6	1.0	1.1	.6	2.7
1925.....	26,353	9	59	1,836	1,904	.1	.8	23.2	24.1	.7	.5	.4	1.6
Fabrication													
1910 to 1914...	108,538	98	425	25,506	26,029	0.3	1.3	78.3	79.9	1.7	0.9	0.8	3.4
1915 to 1919...	80,985	59	163	13,195	13,417	.2	.7	54.3	55.2	1.5	.5	.6	2.6
1920 to 1924...	89,880	47	269	13,879	14,195	.2	1.0	51.5	52.7	1.0	.8	.6	2.4
1925.....	15,718	3	35	857	895	.1	.7	18.2	18.9	.4	.9	.4	1.7

TABLE 5.—ACCIDENT FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY, 1910 TO 1925, BY DEPARTMENTS AND PERIODS—Continued

Period	Equivalent full-year workers	Number of cases				Accident frequency rates (per 1,000,000 hours' exposure)				Accident severity rates (per 1,000 hours' exposure)			
		Death	Perma- nent disabil- ity	Tempo- rary disabil- ity	Total	Death	Perma- nent disabil- ity	Tempo- rary disabil- ity	Total	Death	Perma- nent disabil- ity	Tempo- rary disabil- ity	Total
Forge shops													
1910 to 1914...	6,249	8	19	1,080	1,107	0.4	1.0	57.6	59.0	2.6	0.6	0.7	3.9
1915 to 1919...	12,667	9	45	2,189	2,243	.2	1.2	57.6	59.0	1.4	1.1	.9	3.4
1920 to 1924...	8,901	4	34	1,596	1,634	.1	1.3	59.8	61.2	.9	1.2	.9	3.0
1925.....	3,794	3	11	893	907	.3	1.0	78.5	79.7	1.6	.9	.8	3.3
Wire drawing													
1910 to 1914...	59,481	21	383	11,504	11,908	0.1	2.1	63.5	65.7	0.7	1.9	0.6	3.2
1915 to 1919...	52,666	12	321	6,912	7,245	.1	2.0	43.7	45.8	.5	1.6	.5	2.6
1920 to 1924...	62,614	11	250	4,246	4,507	.1	1.3	22.6	24.0	.4	1.5	.4	2.3
1925.....	13,758	2	47	938	987	.1	1.1	22.7	23.9	.3	1.2	.4	1.9
Electrical department													
1910 to 1914...	14,921	33	48	1,957	2,038	0.8	1.1	45.2	47.1	4.6	1.2	0.5	6.3
1915 to 1919...	16,023	46	40	1,851	1,937	1.0	.8	38.5	40.3	5.7	1.0	.5	7.2
1920 to 1924...	19,339	23	21	1,141	1,185	.4	.4	19.7	20.5	2.4	.3	.3	3.0
1925.....	4,011	6	5	148	159	.5	.4	12.3	13.2	3.0	.6	.3	3.9
Mechanical department													
1910 to 1914...	97,161	104	392	17,794	18,292	0.4	1.3	61.0	62.7	2.1	1.1	0.8	4.0
1915 to 1919...	154,846	154	492	18,556	19,202	.3	1.1	39.9	41.3	2.0	1.0	.5	3.5
1920 to 1924...	162,121	138	366	10,996	11,510	.3	.8	22.6	23.7	1.7	.7	.4	2.8
1925.....	36,666	31	71	1,717	1,819	.3	.7	15.6	16.5	1.7	.7	.3	2.7
Power houses													
1910 to 1914...	8,083	6	21	544	571	0.2	0.9	22.4	23.5	1.5	0.8	0.3	2.6
1915 to 1919...	13,219	27	21	739	787	.7	.5	18.6	19.8	4.1	.6	.3	5.0
1920 to 1924...	18,878	17	18	638	673	.3	.3	11.3	11.9	1.8	.3	.2	2.3
1925.....	4,218	3	4	183	190	.2	.3	14.5	15.0	1.4	.3	.3	2.0
Yards													
1910 to 1914...	55,932	112	243	8,112	8,467	0.7	1.5	48.6	50.8	4.0	1.4	0.6	6.0
1915 to 1919...	53,890	106	258	5,685	6,049	.7	1.6	35.2	37.5	3.9	1.6	.6	6.1
1920 to 1924...	42,546	53	125	3,190	3,366	.4	1.0	25.0	26.4	2.5	1.2	.4	4.1
1925.....	7,683	12	24	755	791	.5	1.0	32.8	34.3	3.1	1.6	.6	5.3
Coke ovens													
1912 to 1914...	13,282	27	39	1,651	1,717	0.7	1.0	41.4	43.1	4.1	1.5	0.6	6.2
1915 to 1919...	28,901	66	44	2,095	2,205	.8	.5	24.1	25.4	4.6	.5	.4	5.5
1920 to 1924...	37,469	26	45	1,577	1,648	.2	.4	14.1	14.7	1.4	.7	.2	2.3
1925.....	7,599	4	14	142	160	.2	.6	6.2	7.0	1.1	.9	.2	2.2

TABLE 5.—ACCIDENT FREQUENCY AND SEVERITY RATES IN THE IRON AND STEEL INDUSTRY, 1910 TO 1925, BY DEPARTMENTS AND PERIODS—Continued

Period	Equivalent full-year workers	Number of cases				Accident frequency rates (per 1,000,000 hours' exposure)				Accident severity rates (per 1,000 hours' exposure)			
		Death	Perma-nent disabil-ity	Tempo-rary disabil-ity	Total	Death	Perma-nent disabil-ity	Tempo-rary disabil-ity	Total	Death	Perma-nent disabil-ity	Tempo-rary disabil-ity	Total
Axle works													
1912 to 1914...	1,326	2	4	438	444	0.5	1.0	110.1	111.6	3.0	2.1	1.6	6.7
1915 to 1919...	2,467			338	342		.5	45.7	46.2			.7	1.9
1920 to 1924...	2,764	2	1	175	178	.2	.1	21.1	21.5	1.4	(1)	.3	1.7
1925.....	436			6	6			4.6	4.6			.1	1.1
Car wheels													
1912 to 1914...	2,367	3	15	609	627	0.4	2.1	85.8	88.3	2.5	0.9	1.3	4.7
1915 to 1919...	5,904	7	18	1,313	1,338	.4	1.0	74.1	75.5	2.4	.5	1.0	3.9
1920 to 1924...	5,050	3	10	595	608	.2	.7	39.3	40.2	1.2	.4	.7	2.3
1925.....	931		3	69	72			24.7	25.8		1.3	.6	1.9
Docks and ore yards													
1911 to 1914...	1,293	3	11	139	153	0.8	2.8	35.8	39.4	4.6	2.8	0.8	8.2
1915 to 1919...	1,383	6	12	175	193	1.4	2.9	42.2	46.5	8.7	4.1	.5	13.3
1920 to 1924...	1,761	4	12	57	73	.8	2.3	10.8	13.9	4.5	5.8	.3	10.6
1925.....	388	2		7	9	1.7		6.0	7.7	10.3		.3	10.6
Structural-steel erection													
1912 to 1914...	2,157	26	24	738	788	4.0	3.7	114.0	121.7	24.1	5.5	1.8	31.4
1915 to 1919...	4,979	45	35	1,522	1,602	3.0	2.3	101.9	107.2	18.1	2.6	1.6	22.3
1920 to 1924...	3,726	29	35	1,026	1,090	2.6	3.1	91.8	97.5	15.6	2.5	1.8	19.9
1925.....	937	9	3	188	200	3.2	1.1	66.9	71.2	19.2	2.2	1.0	22.4
Woven-wire fence													
1915 to 1919...	7,311	1	47	684	732	0.1	2.1	31.2	33.4	0.3	1.6	0.3	2.2
1920 to 1924...	6,623	1	24	399	424	.1	1.2	20.1	21.4	.3	1.2	.3	1.8
1925.....	1,290		2	105	107		.5	27.1	27.7		.2	.4	1.6
Nails and staples													
1915 to 1919...	9,818	2	56	782	840	0.1	1.9	26.5	28.5	0.4	1.3	0.3	2.0
1920 to 1924...	10,890	3	37	588	628	.1	1.1	18.0	19.2	.6	1.0	.2	1.8
1925.....	1,925		6	88	94		1.0	15.2	16.3		1.6	.2	1.8
Hot mills													
1920 to 1924...	30,018	11	39	3,223	3,273	0.1	0.4	35.8	36.3	0.7	0.4	0.5	1.6
1925.....	7,773	4	19	913	936	.2	.8	39.2	40.1	1.0	.7	.6	2.3
Unclassified													
1915 to 1919...	293,329	237	706	30,612	31,555	0.3	0.8	34.8	35.9	1.6	1.3	0.5	3.4
1920 to 1924...	425,704	265	1,186	40,275	41,736	.2	.9	31.5	32.6	1.2	.9	.5	2.6
1925.....	132,291	45	308	10,648	11,001	.1	.8	26.8	27.7	.7	.7	.4	1.8

<sup>1</sup> Less than one-tenth of 1.

The general impression derivable from the addition of the year 1925 to the record is that there are still large areas of the industry in which important improvements are possible. The most successful plants are reaching a point where only very strenuous effort will produce notable results. It would appear that special drives for record periods without lost-time accidents are proving a useful method.

### Building Construction Without Accident

**I**N VIEW of the fact that the construction industry is one having extremely high accident rates, an account in *Labor and Industry*, September, 1926 (p. 26), published by the Pennsylvania Department of Labor and Industry, giving the methods followed in the construction of a six-story building in Allentown, Pa., which was erected without a single lost-time accident, is of interest.

The work on the building was followed closely from the start by one of the State inspectors, who was able to secure the fullest cooperation from the construction company. As the structural-iron workers progressed each floor was covered with 2 by 10 inch oak planks and guard rails were installed around the outside edge of each floor. The men pouring concrete were not allowed to start work on a floor until the guard rails were in place, and the rails also served to protect electricians, plumbers, and laborers whose work required them to work near the floor edges.

Men working below the suspended scaffolds were protected from falling objects by catch scaffolds, and wire mesh was installed on the swinging scaffolds to prevent bricks from falling over the toe boards. Signals for operating the hoist were given by only one man, who was stationed below the hoist with full power to stop everyone from riding on the hoist.

As stated before, the building was completed with no time lost on account of accidents, no extra money was expended, and the construction company was several days ahead of its schedule.

### Safety Work in the Shipping Industry<sup>1</sup>

**A**PAPER showing the need for organized safety work in the shipping industry, which was read at the third annual Pacific Coast Safety Congress, gives an account of a preliminary survey of the accident situation among marine and longshore workers and of the safety program the shipping industry of California proposes to carry out.

With the exception of one or two attempts at organized safety work, notably that of the welfare committee of the Lake Carriers' Association, little has been done toward accident prevention in the shipping industry. Safety work on the Great Lakes was inaugurated by the Lake Carriers' Association during the war, when increased use of this form of transportation for conveying the needed iron ore and grain and the lack of skilled men had resulted in a large number of

<sup>1</sup> Pacific Marine Review, San Francisco, October, 1926. "Introducing safety to the shipping industry," by J. J. Rosedale.

injuries. After several years the results of the safety program have been shown to be a reduction of 40 per cent in the cost of accidents and of about 80 per cent in the number of fatalities.

Shipowners on the Atlantic and Pacific coasts have maintained that the methods adopted in the Great Lakes could not be used by them because of differences in methods of operation. In 1924, however, a safety movement was started on the Pacific coast by the Waterfront Employers' Association of Seattle and has operated very successfully, with approximately a 30 per cent reduction in accidents. As a result of this success a survey was begun recently by the shipping industry of California to determine the special hazards of the industry with a view to formulating a safety program. In this survey, which was planned to cover the entire shipping industry of the State both ashore and afloat, an attempt was made to find out if the shipowners had any proper method of making out accident reports and keeping records of the cost and the number of accidents. It was found that only a few of the larger concerns have adequate records, while the majority of shipowners keep no records at all, so that it was impossible to secure statistics showing the extent of the accident hazard. The causes of 2,608 accidents were reported, however, and analysis of these reports showed that 19.8 per cent were the result of handling cargo by hand, 23.1 per cent were caused by machinery and ships gear, 29.1 per cent by falls and falling objects, and 4.7 per cent by trucks and tractors, while the remainder were due to burns, strains, nail punctures, infections, and miscellaneous causes.

Three serious accidents were reported by one company, one costing the company \$20,000, which were caused by the removal of hatch covers, the openings being covered with loose tarpaulins. This same company had three additional serious accidents within two years, one costing it \$12,000, which were the result of the practice of leaving hatch beams loose. Improper methods of using gear and putting too great a load on the gear were other causes of accidents which resulted in serious injuries to members of the crews.

The tentative plans of the committee for a permanent safety program include the use of a standard form of accident report by shipowners, establishment of safety committees on ships and at the docks, periodic inspection of ships at the principal ports by the safety department, reports for the operating and safety departments, made out for each ship before landing at the dock, which will show the condition of all equipment on the ship; instruction in first aid on board ship and to stevedores and organization of first-aid teams with occasional competitive first-aid meets; and the issuing of safety bulletins to ships' crews and longshoremen.

### Physical Examinations of Street-Railway Employees <sup>1</sup>

**A**N ARTICLE in a recent issue of the *Electric Railway Journal* gives the results of the examination of 900 men ranging from 50 to 76 years of age employed in the operating department of the Boston Elevated Railway.

<sup>1</sup> *Electric Railway Journal*, New York, Oct. 16, 1926. "Physical examinations of employees," by Dr. Benjamin E. Sibley.

The company has recently adopted the policy of annual physical examinations for car and train operators when they reach the age of 50, as after this age the appearance of changes in arteries, heart, and kidneys necessitates a change in personal habits and hygiene if the effects of these changes are to be minimized or retarded. The yearly physical examination has been found to stimulate the interest of the men and to impress them with the importance of following the advice given. Without the regular "follow-up" the advice given by the doctor is often forgotten and nothing is done until some serious condition causing disability develops. The experience of the company has been that the spirit of appreciation and cooperation is growing among the men and that there is an increasing number who return each year with pathological conditions corrected. This is partly due to the realization by the men that the examination is not given for the purpose of laying them off but to keep them in health and on the job longer. Each man examined is told the results of the examination, and if treatment is needed he is referred to his own physician. He is given a report form covering heart, urine, and blood pressure to be filled out by his doctor, so that a further observation and check-up on whether medical aid has been sought is obtained.

The examination is not a long one, but includes a test of eyes and ears and the condition of the teeth, heart, lungs, blood pressure, and urine, and hernia and varicose veins are noted. In cases where a condition is found which makes it unsafe to run cars or trains men are laid off and given other work until in better condition, while men who are not really unfit but who nevertheless are not good risks are kept under observation and are reexamined at frequent intervals.

Of the 900 men examined 25 per cent had bad teeth, many more poor teeth, and nearly all showed almost complete neglect of the teeth. Next to high blood pressure bad teeth present the most important pathological condition because it is the most prevalent and is a factor in causing derangements of the digestion, heart and arterial trouble, and rheumatism. Twenty-one per cent of those examined had varicose veins, which, however, were not in any case causing disability; 16 per cent had hernia;  $7\frac{1}{2}$  per cent had heart trouble; 3 per cent had some bronchial affection; and 3 per cent had albumin and 2 per cent sugar in the urine.

High blood pressure—that is, systolic pressure of 180 or over—was present in 9 per cent, and of these hypertension cases 23 per cent showed pathological heart conditions, 4 per cent heart conditions and albumin, and 9 per cent albumin with no heart pathology. This group therefore had a considerable number of cases in which sclerotic changes in the arteries, the heart, and the kidneys were the cause of the high blood pressure. On the other hand, many in this group owed their hypertension to faulty habits of diet and resulting overweight, and to the excessive use of tobacco, tea, and coffee, in which case the high blood pressure could readily be helped. The latter group it was considered received probably the greatest service from the yearly examination, as it prevented the development of later chronic and incurable organic changes.

The employees suffering from high blood pressure are the most important from the standpoint of safe operation of the cars, especially since many of the older men who were formerly conductors have

become one-man car operators. Two years ago 76 men who had systolic blood pressure ranging from 200 to 250 and diastolic from 120 to 140 were selected for observation. These men were under treatment by their own doctors during this time. At the end of the two years one-fourth of the men had either died or been retired on a pension, part of the deaths being due to "shock" or heart failure. A serious risk is involved in any group which loses 25 per cent of its personnel in so short a time if they are engaged in operating street railway cars or trains, as it is only a matter of chance whether some of these men will die while running their cars.

Although it is not easy to fix a hard-and-fast rule as to blood pressure limits, since the condition of the heart, kidneys, and the general health should be considered, certain limits have been fixed by the company as a sort of rough working standard. No man with a diastolic pressure of 120 or more is permitted to operate a car or train, nor with a systolic pressure of 200 or over unless he has a diastolic below 120. More stress is laid upon the diastolic than upon the systolic pressure, as the men who have died have had high diastolic readings while none of those with high systolic but relatively low diastolic pressures have died.

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### Eye Conservation in Industry

THE importance of the use of goggles in the prevention of serious eye accidents is the subject of an article on "Saving eyes and eyesight," by Joshua E. Hannum in *Industrial Psychology*, October, 1926. Such accidents are among the most serious which can happen to industrial workers, as they entail not only suffering, loss of time, and expense, but also permanent disability and decrease or loss of earning power.

In the prevention of eye accidents cooperation between the management, the foreman, and the workman is necessary. It is generally accepted that it is the duty of managers to furnish protection to workmen, but in the matter of safeguarding the eyes the objection of the workmen to wearing goggles frequently has to be overcome, and this often requires great resourcefulness, patience, and perseverance.

One of the most important reasons for the reluctance of workers to wear goggles is defective vision, which is often unsuspected both by the management and by the individual himself. Goggles must, of course, be fitted so that they are comfortable to wear, but unless they correct defects of vision their function is only partially fulfilled. After the proper corrective lenses have been provided and the goggles properly fitted to the face the problem becomes primarily educational and calls for persistent and painstaking education of workman, gang boss, foreman, and executive. In order to carry on an effective eye-safety campaign it must be planned both for permanency and efficiency, as temporary drives are not so successful in accomplishing lasting results as persistent and unremitting efforts. Preventive measures include elimination of eye hazards at their source through the use of various types of mechanical safeguards, engineering revision (as, for example, changing a manufacturing

process, redesigning a machine or tool, rearranging the physical equipment, changing the method of work, or replacing hand-operated with automatic machines), and education.

In organizing an eye-protection program it is necessary first to make a careful survey of operating conditions, noting the various hazards, after which mechanical safeguards should be installed or engineering changes made. Educating the worker in eye protection should include meetings by departments and mass meetings in which employees should be warned of the special hazards to which they are exposed, and the policy of the company in regard to the care of eyes should be stated. Intensive drives for a "No eye-accident week" should be made frequently, and it is important in such a campaign to see whether goggles are furnished for the various jobs where they are necessary, to examine each employee's goggles to see if they fit properly and give adequate protection, and in cases where employees object to wearing goggles to investigate each case promptly and carefully. One man in each safety organization should be instructed in the use and care of goggles and should be in charge of their distribution, repair, adjustment, and sterilization. The cooperation of the foremen in the effort to make the men wear the goggles should be secured, and it should be their constant duty to see that they are worn by the men.

Each new employee, when employed on a job for which goggles are needed, should be given an eyesight test, and if correction is needed the corrective lenses should be used in the goggles, and the goggles should be fitted to give as much comfort as possible. Different styles of approved types of goggles should be provided by the company from which selections can be made. There are four different methods which may be followed in supplying goggles to the employees. They may be furnished to the men without charge; the workmen may be required to pay for them, either partially or entirely, on the assumption that they will then be better appreciated; a deposit may be required when they are issued and returned when they are turned in; or a charge may be made if goggles are carelessly lost or broken.

Adjustment of the goggles to the face should include proper fitting of the nose piece, avoidance of tension in the adjustment of the headband, which should not be worn around the middle of the head, as it frequently causes headaches, and avoidance of pressure on the temples. Metal cases for the goggles should be provided and should be sterilized as well as the goggles before being given out. Employees should not be allowed to exchange goggles unless they have been sterilized, because of the danger of spreading infectious diseases. Frequent inspection of goggles is necessary in order to make sure that they are in good condition, in some plants a daily inspection being desirable.

If, after all such measures have been taken, employees still refuse to be careful, the only alternative is discipline, the penalty for not wearing goggles in hazardous occupations or places being immediate discharge or a temporary lay-off without pay for a first offense.

## Fatalities in the California Petroleum Industry

A REPORT of the United States Bureau of Mines, Serial No. 2772, gives the number and causes of fatal accidents occurring in the petroleum industry of California in 1925. During the year there were 59 fatalities in all branches of the petroleum industry, as compared with 61 in 1924. Both the drilling and producing and the pipe-line and transportation divisions showed a considerable reduction in the number of fatalities, while there were large increases in the number of fatal accidents in the refinery and in the sales and marketing divisions. In 1924 there were 44 fatal accidents in the drilling and producing division, and in 1925, 31 such accidents, a reduction of 29.55 per cent. The production per death in 1925 was 7.43 millions of barrels as compared with 5.23 in the preceding year. The amount of oil produced in 1925 was approximately the same as in 1924, so that the large reduction in the number of fatal accidents in the drilling and producing division is considered to be significant of the progress made in safety work in the oil fields.

The following table shows the number of men killed in the drilling and producing fields of California, the amount of oil produced, and the production per fatality expressed in millions of barrels of oil for the years 1917 to 1925:

FATALITIES, PRODUCTION, AND PRODUCTION PER DEATH IN THE CALIFORNIA OIL FIELDS, 1917 TO 1925

Year	Number of deaths	Oil production (barrels)	Production per death (barrels)	Year	Number of deaths	Oil production (barrels)	Production per death (barrels)
1917.....	14	97,267,832	6,950,000	1923.....	59	263,728,895	4,460,000
1918.....	23	101,637,870	4,420,000	1924.....	44	230,063,117	5,230,000
1919.....	16	101,221,784	6,330,000	1925.....	31	230,147,342	7,430,000
1920.....	20	105,721,186	5,280,000	Average, 1917-			
1921.....	26	114,849,924	4,420,000	1925.....	29.6	153,807,203	5,180,000
1922.....	34	139,626,876	4,110,000				

A decided improvement in the provision of safeguards is shown by the fact that less than half as many fatalities were due to lack of proper protective devices as in 1924. Six or seven of the 31 fatalities, it is stated, might have been avoided by the installation of safeguards, while 5 of the accidents were the result of gross carelessness on the part of those killed.

A study of the accidents by cause shows that 5 of the accidents in the drilling and producing division were caused by machinery, 1 by handling materials, 3 by falls of persons, 8 by falling objects, 6 by automobiles and trucks, 4 by burns, and the remaining 4 were due to miscellaneous causes.

## Fatal Accidents in Various Countries<sup>1</sup>

A COMPILATION of fatal accident rates in various countries including the United States, in 1911 and the latest years for which data are available, is contained in a report of the committee on public accident statistics of the National Safety Council

<sup>1</sup> National Safety Council. The toll of public accidents. Chicago, 1926.

recently made public. The following statements are taken from this report:

During the year 1925 there occurred in the United States, according to the estimate of the committee, nearly 90,000 deaths from accidents of all kinds. The significance of this heavy toll may be seen clearly when comparison is made with the figures available for other countries of the world. The latest available figures for the United States which can be compared with data for other countries are those for 1924. In that year in the United States registration States there occurred 76.2 fatal accidents per 100,000 of population. In England and Wales during the same year the death rate for all accidents was only 34.1 per 100,000 of population. This means that fatal accidents in the United States occur nearly two and one-quarter times as frequently as they do in England. For Scotland the death rate for all accidents combined was 45.2 per 100,000 in 1924, and for Australia the rate in that year was 48.

The latest available data for other countries relate to the years 1922 and 1923. In New Zealand the rate for fatal accidents in 1923 was 46.1 per 100,000, and for Canada 56.5 per 100,000. In 1922 Belgium showed a fatal accident rate of 28.3 per 100,000, and Norway a rate of 39.5 per 100,000. These international figures show the tremendous margin which exists between the accident death rate in this country and the rates prevailing in other civilized countries of the world. A comparative review of the latest available facts for the several countries is shown in the accompanying table. We show also similar data for the year 1911.

An item of interest in this table is the substantial decline shown in the death rates for accidental falls, burns, drownings, steam railroad accidents, and accidents arising out of the operation of street cars. Safety campaigns in industry, for the protection of life on steam railways and in the operation of street cars, have shown substantial results in lowered death rates in the principal countries of the world. But for automobile accidents the death rate has risen, and this item in the accident record now assumes first importance. In the United States the death rate for automobile accidents and injuries in 1924 was more than seven times that which prevailed in 1911; in England and Wales the automobile accident death rate of 1924 was nearly four times that for 1911. While the automobile accident death rates for the year 1911 in both the United States and England and Wales were almost the same, there was a very wide divergence in 1924; in the United States the rate was 15.6 deaths per 100,000 and in England and Wales only 6.5 deaths per 100,000.

DEATH RATES PER 100,000 POPULATION FOR SPECIFIED ACCIDENTS IN CERTAIN COUNTRIES

Country and year	Total accidents	Accidents caused by—					
		Falls	Burns	Drownings	Steam railroads	Automobiles	Street cars
United States registration States:							
1924	76.2	13.1	6.9	6.6	6.5	15.6	1.6
1911	34.6	15.0	7.7	9.4	13.0	2.2	3.2
England and Wales:							
1924	34.1	7.1	4.0	4.0	1.5	6.5	.2
1911	45.5	7.8	6.8	7.3	2.3	1.8	.1
Scotland:							
1924	45.2	4.5	16.8	6.3	1.7	4.9	.4
1911	55.2	5.2	28.5	10.6	3.1	.8	.3
Belgium:							
1922	28.3	3.6	3.1	3.8	2.6	2.4	( <sup>1</sup> )
1911	34.7	6.6	4.4	9.5	3.6	( <sup>2</sup> )	( <sup>3</sup> )
New Zealand:							
1923	46.1	2.8	22.0	13.1	5.4	4.6	1.1
1911	46.4	2.2	26.8	16.0	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Australia:							
1924	48.0	5.9	5.0	7.4	3.5	6.6	.9
1911	66.1	7.8	7.0	16.0	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Canada:							
1923	56.5	6.7	4.2	9.9	4.3	5.4	.5
1911	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Norway:							
1922	39.6	4.9	1.6	20.4	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
1911	47.1	3.8	1.8	30.2	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )

<sup>1</sup> Includes conflagration.

<sup>2</sup> Includes scalds.

<sup>3</sup> Data not available.

[1218]

## English Limitations on Weight Lifting by Hand in the Woolen Industry

THE English magazine, Welfare Work (London), for October, 1926, is authority for the statement that the English Government has issued draft regulations setting the maximum weight which may be lifted either by a person lifting by hand by himself or by persons lifting by hand in conjunction with others in woolen and worsted textile factories. The weights permitted are as follows, those in column (1) applying to cases where the material to be lifted is a reasonably compact and rigid body, and those in column (2) to cases where it is not:

	(1) Pounds	(2) Pounds
Man.....	150	120
Woman.....	65	50
Male young person over 16 and under 18 years of age.....	65	50
Female young person under 18 years of age.....	50	40
Male young person under 16 years of age.....	50	40

## Industrial Poisons and Diseases in British Factories

THE report of the chief inspector of factories and workshops in Great Britain for the year 1925 contains the report of Sir Thomas Legge, senior medical inspector of factories, showing the causes and extent of industrial diseases and poisoning among British factory workers.

The following table shows the number of cases of diseases resulting from the use of some of the more important industrial poisons from 1906 to 1925:

NUMBER OF CASES OF POISONING AND OF CERTAIN INDUSTRIAL DISEASES REPORTED IN GREAT BRITAIN, 1906 TO 1925

Disease	Average						1924	1925
	1906 to 1908	1909 to 1911	1912 to 1914	1915 to 1917	1918 to 1920	1921 to 1923		
Lead poisoning:								
Cases.....	619	576	522	349	198	271	486	326
Deaths.....	30	35	33	21	20	26	32	13
Phosphorus poisoning: Cases.....	1	1		3	1			
Arsenic poisoning:								
Cases.....	12	7	4	11	3		6	6
Deaths.....	1			2			1	5
Mercury poisoning: Cases.....	7	10	14	14	7	3	5	3
Carbon bisulphide poisoning: Cases.....								
Aniline poisoning:								
Cases.....								31
Deaths.....								1
Toxic jaundice:								
Cases.....				132	14	4	3	2
Deaths.....				34	5	1		1
Epitheliomatous ulceration:								
Cases.....					45	41	123	160
Deaths.....					1	3	24	55
Chrome ulceration: Cases.....					126	43	45	54
Anthrax:								
Cases.....	57	57	57	83	59	39	43	45
Deaths.....	13	11	7	12	9	5	4	9

Several special inquiries were made by the medical inspectors during the year. One of special interest in the United States, owing to the reporting and investigation of a number of deaths in a plant in New Jersey in which luminous watch and clock dials were painted, covered the workers engaged in a similar process in Great Britain. Fewer than 10 persons were found to be engaged in this occupation, and physical examination and blood tests of 7 women who had worked with the radio-active paint for periods varying from 1 to 10 years showed that in 3 cases there were changes in the blood cells which were attributable to action of the radium salt. In general, however, the investigation failed to reveal symptoms comparable with those shown by the investigation in this country.

*Lead poisoning.*—The number of cases of lead poisoning had decreased considerably in 1925 from the number reported the preceding year, the reduction taking place in ship breaking and in the manufacture of electric accumulators. In ship breaking this reduction was the result not so much of control of the danger as of the fact that a lighter class of vessel was being broken up, which was not so heavily coated with lead paint, and that a smaller number of workers was employed in the industry. In the manufacture of electric accumulators the workshop regulations which were put into effect early in the year had proved fairly effective, although, in view of the extensive handling of the plates, with the production of dust from each movement, the apparently simple matter of cleanliness of floors and benches seemed to be more important and to give more trouble than the provision of elaborate systems of ventilation.

Notification of cases of lead poisoning among house painters and plumbers is not compulsory, but 100 cases came to the knowledge of the department, 12 of which were fatal. Eighty-eight of these cases (9 deaths) were among house painters, and a comparison of these cases with the 326 cases of lead poisoning in factories showed, the report states, that the cases among house painters were twice as severe as the factory cases, the amount of chronic poisoning was four times as great, and there was a greater amount of paralysis.

*Arsenic.*—The 6 cases of arsenical poisoning were similar to the cases reported the previous year, 5 of them being cases of dermatitis and ulceration occurring in sheep-dip works and one a case of epitheliomatous ulceration in a man who was employed for 19 years in the manufacture of emerald green but who for 14 years had been employed in a paint and color works with very slight exposure to arsenic.

*Carbon bisulphide.*—Two cases of carbon bisulphide poisoning occurred in the cold-cure process in the rubber industry and the third in the artificial silk industry. This case was very acute, the symptoms being headache, vomiting, delirium, loss of muscular power, and almost complete loss of sensation. An examination of 12 men in the same factory showed, in the case of several, symptoms of absorption, such as headache, gastric disturbances, distaste for food, lassitude, and depression. Other hazards noted in this very important new industry were irritation of the eyes from minute proportions of hydrogen sulphide gas present in the air in spinning rooms, and effects on the skin from the acid used in spinning.

*Aniline.*—Twenty-five of the 31 cases of aniline poisoning occurred in chemical works and the remainder in bleaching, dyeing, and

printing works. Several of the cases showed the rapidity with which aniline, either the liquid or the dust as of paranitranilin, is absorbed by the blood directly from the skin.

*Chrome and epitheliomatous ulceration.*—The cases of chrome ulceration occurred principally in its manufacture, in dyeing and finishing, and in chrome tanning. The occurrence of a case in a new process of electrolytic deposition of chrome on metal to make it rustless led to a study of the hazard. The ill effects seemed to be caused by a vapor rising from the bath, probably chromylchloride. One man had coryza and irritation of the upper air passages, the inventor of the process had perforation of the nasal septum, and a third worker had dermatitis of the arms and a chrome sore, and the nasal mucous membrane was affected.

Of the 160 cases of epitheliomatous ulceration, 67 (with 9 deaths) were due to pitch, tar, and paraffin, and 93 (with 46 deaths) were due to oil, mainly among mule spinners. The total number of cases of cancer among mule spinners reported to the factory department from 1876 to 1925 was 539. The average length of employment of these workers was 40 years, but the range of employment was from 10 to 63 years, and in 13 cases the cancer appeared from 1 to 14 years after the worker had given up all employment.

*Dermatitis.*—The cases of dermatitis reported during 1925 numbered 331, the largest number occurring in the dyeing and calico-bleaching and printing industries. In this and in various other industries the dermatitis is caused not by the materials used in the process but by those used by the workers to clean the hands after work. It is impossible, it is said, to lay too much stress on the importance of the inspection of the hands of workers exposed to skin irritants, as early cases will thus be recognized and those with a skin unsuited to the work may be saved from disability from this cause. The use of rubber gloves and, in some trades, of a bland emollient smeared on the skin before work are also advocated.

*Poisoning from gas and fumes.*—The number of cases of poisoning from carbon monoxide in 1925 was 118 with 10 deaths, an increase of 11 cases over those of the preceding year. Twenty-five cases and 6 deaths were due to blast-furnace gas, 34 cases and 1 death to producer gas, 26 cases and 2 deaths to coal gas, and 33 cases and 1 death to various causes such as fumes from coke rivet fires in confined spaces on board ship, coke stoves or fires, exhaust gas from motor cars, fumes from limekilns and from smouldering coal. Fifteen fatalities occurred from inhalation of carbon dioxide, nitrous oxide, benzol, nickel carbonyl, and trichlorethylene. In most of the cases the workers were engaged in cleaning or repairing plant or inhaled the fumes from leaky pipes or containers.

The following table shows the deaths and the cases of poisoning from gases and fumes for the years 1917 to 1925:

NUMBER OF CASES OF INDUSTRIAL POISONING AND OF DEATHS FROM GASES AND FUMES, 1917 TO 1925, BY YEARS

Gas or fume	1917	1918	1919	1920	1921	1922	1923	1924	1925
Carbon monoxide:									
Cases.....	99	54	85	56	77	111	134	107	118
Deaths.....	18	13	12	9	14	14	7	10	10
Carbon dioxide:									
Cases.....	1	5	3		5	1	10	5	10
Deaths.....		5	1		4		2	2	2
Sulphuretted hydrogen:									
Cases.....	11	7	3	13	3	12	8	11	4
Deaths.....	4	1		4		3		4	
Sulphur dioxide:									
Cases.....	2	1	7	2	5	7	10	10	3
Deaths.....									1
Chlorine: Cases.....	3	4	9	8	3	11	16	20	12
Nitrous fumes:									
Cases.....	62	27	5	9		8	7	10	10
Deaths.....	5	7	2	3				1	2
Ammonia:									
Cases.....	4	6	8		9	8	5	1	5
Deaths.....	1	1			1	1	1		
Benzol, naphtha:									
Cases.....	4	7	9	12	10	25	55	26	3
Deaths.....	2	4	3	1		1	3		1
Arseniuretted hydrogen: <sup>1</sup>									
Cases.....	12	2	3	5	1	1	4	3	2
Deaths.....	3			3	1		2		1
Miscellaneous (ether, acetone, nickel carbonyl, etc.):									
Cases.....	4	1	3	9	3	10	35	28	35
Deaths.....						1	2	4	8

<sup>1</sup> Included also under "Toxic jaundice" in preceding table.

Studies were made during the year of silicosis in the pottery industry, weight lifting and carrying by women and young persons, conditions of work among blind persons, and dermatitis in the boot trade and among calico-print and dye workers.

## Factory Accidents in New Zealand, 1925

IN ITS report for the year ending March 31, 1926, the New Zealand Department of Labor states that the total number of accidents in factories reported for the calendar year 1925 was 2,426, an increase of 447 over the preceding year. The increase, however, is regarded as apparent rather than real, being ascribed to more careful reporting. There were 7 fatalities, 132 accidents which caused permanent partial disability, 2,287 which caused temporary disability, and none causing permanent total disability. Of the accidents reported 68, or 2.8 per cent, occurred to workers under 16 years of age; 406, or 16.7 per cent, to workers between 16 and 20; and the remainder to workers over 20. The accidents to young persons were all of a minor character. Only one-fourth of the total number of accidents were due to machinery, but 5 of the 7 fatalities came from this cause; 13 accidents were due to loose clothing becoming entangled in machinery. Attention is called to the fact that during the year there were no mishaps due to the workers' hair coming into contact with machinery, "no doubt due to the now prevailing fashion of short hair amongst females."

Apart from those mentioned above, the principal causes of accidents were found to be the following: Falls of persons from stairs, ladders, etc., 229; faulty handling of tools, 480; handling of other objects (viz, objects dropped or tipping over, strain due to handling, falling of objects while loading, etc.), 615; poisonous, hot, or corrosive substances, 101.

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### Prohibition of the Use of White Lead in Painting in Sweden<sup>1</sup>

THE use of white lead in painting is prohibited in Sweden by an act dated February 19, 1926. For the purposes of the act, "lead colors" are considered to mean lead carbonate (white lead), lead sulphate, and other pigments containing either the carbonate or sulphate of lead.

By the terms of the law, male workers under 18 years of age and women may not be employed in painting in which lead colors are used, and in the case of male workers 18 years and over, the use of lead colors in the interior painting of buildings is prohibited unless the quantity of lead carbonate or lead sulphate in the paint is less than 2 per cent. This provision does not apply to artistic painting or fine lining. Exceptions may be made in the amount of lead used in the case of painting on buildings connected with railway stations or industrial establishments where such exceptions are considered necessary.

Where lead colors are used in painting special rules shall be followed by the employer for the prevention of lead poisoning. These include furnishing pigments in the form of paste or of paint ready for use, special safeguards in spray painting and in dry scraping and dry rubbing down, and the provision of adequate washing facilities and of special working clothes. Employees must be instructed in measures to be followed in the prevention of lead poisoning and the employer must notify the proper authorities in all cases of lead poisoning or suspected lead poisoning. Medical examinations of all or part of the workers in an establishment may be required when it is considered necessary.

The enforcement of this act is placed under the industrial inspection service, and the penalty for failure to comply with the terms of the law is fixed at not less than 10 nor more than 500 kronor.<sup>2</sup>

The law was to become effective July 1, 1926.

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<sup>1</sup>International Labor Office. Legislative Series, 1926. Sweden. Act: Prohibition of white lead. 3 pp.  
<sup>2</sup>Krona at par=26.8 cents; exchange rate in September, 1926, was about par.

## WORKMEN'S COMPENSATION AND SOCIAL INSURANCE

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### Missouri Workmen's Compensation Law Adopted on Referendum

THE concluding chapter seems to have been written in the long struggle of the friends of workmen's compensation in Missouri to secure the enactment of a law in that State. The Labor Review for September, 1925, carries an account of the steps taken, beginning with 1910, in this direction. The legislature of 1925 followed those of 1919 and 1921 in the enactment of bills for a law of this type, the two former being rejected on referendum. Recourse was had to the same method with regard to the act of 1925, but accounts at hand indicate the final success of the proponents of the measure, the vote being: Yes, 561,898; no, 252,882.

It was thought that no legislation was possible in 1923 because of the insistence of the supporters of the bill on an exclusive State insurance system. However, the enemies of the present law, recognizing a labor sentiment in favor of the State fund, drew up a bill incorporating this provision and offered it as an alternative to the act of the legislature, with the evident purpose of dividing the supporters of the measure to such an extent that neither would win over the negative votes. This subterfuge was not successful, organized labor, employers, and others interested concentrating their efforts on the adoption of the law as enacted by the legislature of 1925, on the ground that it commanded the greater body of support and that it secured at least a major portion of the benefits desired. The proposed substitute received but 160,645 votes, 612,392 being cast against it.

The act provides for administration by a commission of three members, two-thirds of the average earnings as compensation, the maximum payment being \$20 weekly and the minimum \$6, payable for 400 weeks in case of disability and for 300 weeks in case of death. Three days' waiting time is deducted unless the disability lasts for more than four weeks; medical and surgical aid are provided for 60 days, not to exceed \$250 in amount. Insurance is required unless self-insurance is authorized. Employments generally are covered, with a numerical exemption of employers having less than 10 employees; these may come under the act by joint election or on inclusion by the commission, on application, or its own motion. As originally enacted, the law would have gone into effect on July 9, so far as organization was concerned, the compensation provisions to go into effect September 1, 1925, 54 days later. A proclamation of November 16, 1926, announced the adoption of the law by referendum, and Alroy S. Phillips, Evert Richardson, and Orin H. Shaw were named as commissioners, the first to be chairman. These were to enter at once upon their duties, but the attorney general of the State has

ruled that it was "clearly the intent of the legislature to give employers that period of time [54 days] to adjust their insurance affairs to the new law." The compensation features of the law will therefore become operative January 9, 1927.

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### Compensation for Injury Received During Period of Permanent Total Disability

**A**N UNUSUAL case was recently before the Supreme Court of New York, appellate division, involving a death benefit where the deceased had ceased employment and was receiving compensation on grounds of permanent total disability. (*Colvin v. Emmons & Whitehead et al.*, 215 N. Y. S. 562.) The deceased workman had suffered an accident in December, 1917, since which time he "had been subject to dizzy spells." In July, 1923, he was about the place where his son-in-law was building a house, and undertook to climb a ladder, presumably for the gratification of his own curiosity, being in no wise employed in connection with the work. When 2 or 3 feet from the ground, he fell, suffering a broken neck, with immediately fatal results. A physician expressed the opinion that there was an attack of vertigo which caused him to fall, this attack being the "direct result of the injuries sustained on December 12, 1917." The board found that the death "was not naturally and unavoidably the result of the injuries," and furthermore that the deceased had no business to be performed on the ladder, was not employed by anyone, and had improperly exposed himself to danger in view of his physical condition. Compensation was therefore denied.

Appeal was taken to the court, which commented on the expression as to the unnecessary exposure as an immaterial finding, strongly suggestive that "this case has been decided on an improper theory," indiscretion and negligence constituting no defense. The only question would be "whether there was causal relationship between the death and the accident of 1917." If it should appear that the vertigo causing the fall was due to the accident of 1917, compensation would be due. Inasmuch as the board had failed to decide whether or not the vertigo was due to the original injury, a new hearing would be necessary. The decision was therefore reversed and the claim remanded for a new hearing.

In this resubmission a member of the industrial board found, after carefully reviewing the record, that the attack of vertigo was due to the original injury and that the death was the result of such attack. The disallowance was therefore ordered rescinded and the case restored "to a regular death calendar for the purpose of making award to the dependents."

## Anthrax as a Compensable Accident

THE Court of Civil Appeals of Texas has decided that "the great weight of authority" and the court decisions that are "sounder in principle and more in consonance with the intent and reason of the law," hold that anthrax contracted in the course of employment is a compensable accidental injury. In the instant case a workman was employed at skinning cattle and contracted the disease, with fatal results. "It is because the employee in the discharge of his duty is brought in contact with the anthrax germ that he contracts the disease, and we think it correct to say that the consequent injury suffered by the employee was accidental and the result of a hazard incidental to and in the course of his employment and therefore compensable." (*Houston Packing Co. v. Mason*, 286 S. W., p. 862.)

In arriving at this decision a quite extensive review was made of cases, not all in harmony, but with a strong preponderance in favor of the conclusion arrived at.

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## Infection of Open Sore as Compensable Injury

THE Court of Appeals of Ohio had before it recently a case involving the claim of a mother for the death of her daughter from blood poisoning. It appears that the girl was employed in handling sheets of blue carbon paper used in tabulating her employer's accounts, and that in the course of her employment an abrasion became infected from contact with her hands, followed by cellulitis, acute blood poisoning, and death. The industrial commission rejected the claim on the ground that no industrial disease was shown nor any injury sustained in the course of and arising out of the employment. The court of common pleas gave judgment for the defendant on a directed verdict when the case was before it, but on a writ of error to the court of appeals judgment below was reversed and the case remanded for a new trial. (*Jasionowski v. Industrial Commission of Ohio*, 153 N. E. 247.)

The court recognized that "manifestly she did not die of an occupational disease, and such claim is not made by the plaintiff." However, the evidence tended to show that the girl "had a slight cold sore near the right corner of her mouth, and there is some evidence that in wiping and rubbing her face with her hands the sore became infected, and that, within a few days thereafter, her face and neck became very much swollen, and death resulted in about two weeks." It was further said that if this condition should be found by the jury to be sustained by evidence it would amount to an injury within the meaning of the workmen's compensation law. Admitting that some evidence adduced was of the nature of hearsay, it was pointed out that the industrial commission was not bound by the usual common-law or statutory rules as to evidence, and that as it had been submitted to the commission it was necessarily sent on to the jury, there to be considered in accordance with proper instructions. Since there was "evidence tending to show an injury to the deceased within the statute," and since the jury had not been able to consider this by reason of a directed verdict being ordered for the defendant, it was necessary to reverse the judgment and remand the cause.

## Longshoremen Classed as Seamen

A DECISION of particular interest in view of current circumstances was handed down by the Supreme Court on October 18, 1926, in a case involving a definition of the word "seamen." Action had been brought by a longshoreman in a State court of Washington asking for damages for injuries claimed to be due to the negligence of a hatch tender. (*International Stevedoring Co. v. Haverty*, 47 Sup. Ct. 19.) Both parties were employed by the defendant company, which asked for a ruling that the longshoreman and the hatch tender were fellow servants, so that no recovery for the injury could be had. The case came to the supreme court of the State (*Haverty v. International Stevedoring Co.* (1925), 235 Pac. 360), where judgment for the plaintiff was affirmed. In its opinion the State court expressed its own view that the act of 1920 (41 Stat. 1007), granting to seamen the right to sue for damages under the same rules as to liability as apply to railroad employees in interstate commerce (act of 1908, 1910), would apply to longshoremen, inasmuch as they are engaged in maritime employment and are entitled to such benefits as are conferred upon other seamen. However, the court was constrained to suppress its view on this point inasmuch as the circuit court of appeals for the ninth circuit had decided (*The Hoquiam* (1918), 253 Fed. 627, 165 C. C. A. 253) that that provision applied only to merchant seamen and not to longshoremen. In conformity with this decision, the law was construed as inapplicable, but on the view that the hatch tender was a vice principal and not a fellow servant of the stevedore the judgment for damages was affirmed.

The case then came to the Supreme Court on a writ of certiorari, where the result arrived at by the court below was affirmed but on exactly opposite grounds. Instead of passing upon the admiralty law, and whether it had taken up the common-law doctrine of fellow service, the court, Mr. Justice Holmes speaking, held the act of 1920 applicable. As to the contention that under the common law the plaintiff would have no case, the court said, "Whether this last proposition is true we do not decide"; but it referred to the power of Congress to change the rule, adding "and in our opinion it has done so."

Referring to the act giving to seamen the right to elect a jury trial, with the common-law rights or remedies applicable to cases of personal injury to railway employees, it was pointed out that indisputably the statutes had done away with the fellow-servant rule so far as railway employees were concerned. The only remaining question was as to the scope of the term "seamen." It was said to be true for most purposes that "as the word is commonly used, stevedores are not 'seamen.' But words are flexible." The work done by stevedores is "a maritime service formerly rendered by the ship's crew." Doubt was expressed as to the willingness of Congress to protect seamen employed by the ship and not those employed by a stevedore. "If they should be protected in the one case they should be in the other"; and since Congress had widely modified the common-law rules the opinion was expressed that "in this statute 'seamen' is to be taken to include stevedores engaged as the plaintiff was, whatever it might mean in laws of a different kind."

The effect of this opinion can only be partly estimated, some intimation being given by the direct reversal of the position of the circuit court of appeals in *The Hoquiam* case above. The position that longshoremen were not protected by the amendment of 1920, there definitely asserted, had stood for eight years, and various efforts had been made to secure legislation for their protection. Emphasis was laid on the fact that seamen proper had been provided for by legislation covering injuries causing death "by wrongful act or default occurring on high seas beyond a marine league from the shore of any State." (1920, 41 Stat. 537.) The amendment of 1920, already referred to, being also referred to as limited to deep-sea seamen, was regarded by this class of workers as furnishing them with a fairly satisfactory legal status, so that they did not desire to be included in measures proposed for the benefit of the longshoremen. So completely had this view prevailed, resting, no doubt, largely on *The Hoquiam* decision, that proponents of relief for the longshoremen spoke of them as "left completely out in the cold," or "left high and dry," without other relief than the very inadequate provisions of the maritime law. After this decision, no doubt the choice of a suit for damages under the terms of the fellow-service act of 1920, granting the same rights as are given to railroad employees by the act of 1908, 1910, may be availed of; but in view of the urgent representations made by the longshoremen in favor of a compensation statute, it seems probable that the bill which passed the Senate at the first session of the Sixty-ninth Congress will be again urged for consideration on the convening of the second session in December, 1926.

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### Workmen's Compensation Problems in Relation to Hospitals<sup>1</sup>

THE theory and practice of workmen's compensation in relation to hospitals was the subject of one of the sessions of the annual conference of the American Hospital Association, held in Atlantic City in September, 1926.

That the benefit provisions of workmen's compensation laws vary greatly from State to State and in no case are they entirely satisfactory was brought out by Dr. E. H. Lewinski-Corwin in his discussion of the subject, who said that the least satisfactory of all types of benefits are those pertaining to medical and hospital care, and that this phase of workmen's compensation needs to be remedied. The States providing the highest medical and hospital benefits are New York, California, Connecticut, Idaho, Missouri, North Dakota, and Washington.

The collection of anything less than the actual hospital cost for an insured workman is a bad practice from the social standpoint, Doctor Corwin stated, and there is a question, also, whether it is not a diversion of trust funds when they are used to pay the costs of cases whose risks are entirely covered by insurance. In this case the insurance company stockholders are receiving money in dividends which should be paid to the hospitals while the patient is being pauperized by this

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<sup>1</sup> The Modern Hospital, Chicago, October, 1926, pp. 88, 89.

compulsory acceptance of charity. The hospitals feel that they can not carry the cost of these cases when payment in full should be made by the insurance carrier.

On the other hand, he said, although some of the grievances against the insurance companies are well grounded, the basic difficulties can be traced to the type of legislation and the method of administering the law in the different States, and to some extent, also, to the lack of a uniform attitude among hospitals toward these problems.

Doctor Corwin suggested, therefore, that in view of the extent of the development of workmen's compensation and the difficulties met in dealing with the insurance companies, that a rate be determined for certain regions and types of institutions as a way of smoothing the relationships with the insurance carriers. There must be extension also of the hospital along medical lines, as there is a tendency on the part of industry toward the broader recognition of the principle of responsibility in occupational diseases as well as in injuries. Other speakers agreed that the injured workman is no longer a charity patient and should not be treated as such by hospitals.

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## New York Workmen's Compensation Report

THE Department of Labor of the State of New York has divided its compensation reports into two parts, one giving cost of compensation and the other accident data. Special Bulletin No. 146 gives the cost of compensation for accidents compensated during the year ending June 30, 1925, the basis being closed cases. The number of cases closed during the year was 76,216, including cases for every year, beginning with 1916 up to date. The law provides continuing jurisdiction over each case, so that the number above given includes 753 cases reopened for additional awards where there had been a previous closing of the case.

The number of cases closed during this year exceeded those of the preceding year by 3,233. Of these, 5,469 were cases that came within the compensation provisions of the law on account of the reduced waiting period, an amendment of 1924, effective January 1, 1925, having reduced the waiting time from 14 days to 7. But for this liberalization of the law the number of cases closed during the year would have been 2,236 less than the 72,983 cases closed during the year ending June 30, 1924.

The total amount awarded by the referees of the department was \$27,854,726, which represents the computed total values for all classes of injuries. The following brief table gives the distribution and compensation by extent of disability, with computation of percentages and averages.

TOTAL AND AVERAGE COMPENSATION PAYMENTS IN CASES CLOSED IN 1924-25,  
BY EXTENT OF INJURY

Extent of disability	Cases		Compensation awarded		
	Number	Per cent of total	Amount	Per cent of total	Average
Death.....	1,102	1.4	\$6,499,258	23.3	\$5,897.69
Permanent total.....	50	.1	652,981	2.3	13,059.02
Permanent partial.....	16,060	21.0	14,121,288	50.7	882.58
Temporary.....	59,064	77.5	6,581,199	23.7	111.42
Total.....	76,216	100.0	27,854,726	100.0	365.47

As to distribution by industries, it appears that manufacturing furnishes much the largest proportion of cases, the number from this group being 31,254. Construction follows with but 15,632, transportation and public utilities coming next with 13,561 cases. The number of employees in manufacturing easily accounts for the larger number of injuries, but the nature of the employment is shown to be much less hazardous by the fact that total compensation in this group amounted to but \$9,868,393, or an average of \$315.74 per case, while the far smaller number of injuries in construction called for \$7,372,853 as total compensation, or an average of \$471.65—nearly 50 per cent more than the average per case in manufacturing. The highest degree of severity as expressed by average compensation is in mining and quarrying, where 762 cases called for compensation amounting to \$429,162, an average of \$563.20 per case. Taking temporary disability cases only, the costs per case in manufacturing averaged \$90.53, in construction \$164.15, and in mining and quarrying \$134.10.

The total number of temporary disability cases closed during the year was 59,064, the average period for which compensation was paid therefor being 6.8 weeks, "although the median, due to bunching at the lower periods, was 3 weeks."

The New York law is one of the more liberal compensation statutes, providing compensation at a rate corresponding to 66⅔ per cent of the weekly wages, but with a maximum limit of \$20 per week. This last qualification was found to affect 29,637 of the employees whose wages exceeded \$30 per week, while for 46,579 employees the \$20 limitation was ineffective. The limitation affected nearly one-half the male workers who sustained disabilities, the median wage for males being in the wage group \$28.50 to \$29.49. For females the median rate was within the group \$16.50 to \$17.49, the median for all being in the group \$28.50 to \$29.49.

Detailed tables show the number and cost of compensated accidents, by industry, by nature and location of injury with separate presentation for infected injuries, extent of compensated disability in temporary disability cases, location and cost of permanent partial disabilities, dependents in fatal cases, and classified ages and wage groups of injured employees, by sex.

Sickness Insurance in Various Countries<sup>1</sup>

THE present status of compulsory sickness insurance is outlined in a questionnaire on this subject sent by the International Labor Office to the different members of the International Labor Organization, the subject of sickness insurance being the first item on the agenda of the 1927 session of the conference.

The principle of compulsory insurance of the workers against sickness has been embodied, it is said, to a greater or less extent in the legislation of 22 States, while material and moral support of such insurance is rendered by the public authorities in a number of other countries. At the present time in Europe the number covered by compulsory insurance amounts to more than 50,000,000 workers while several millions also are covered by voluntary insurance. Twelve of the 22 States which have a compulsory insurance scheme have covered, either from the start or by successive stages, every person engaged in an economically dependent occupation.

Table 1 shows for each of these States the principal act on which the scheme is founded and the number of persons insured:

TABLE 1.—NUMBER OF PERSONS INSURED UNDER GENERAL WORKERS' INSURANCE SYSTEMS IN DIFFERENT COUNTRIES

Country	Date of principal act	Number of persons insured
Austria.....	Mar. 30, 1888 (consolidated and amended Nov. 20, 1922)....	<sup>1</sup> 1, 620, 000
Bulgaria.....	Mar. 6, 1924.....	<sup>2</sup> 241, 000
Chile.....	Sept. 8, 1924.....	
Czechoslovakia.....	Oct. 9, 1924.....	<sup>3</sup> 2, 500, 000
Germany.....	July 19, 1911 (consolidated and amended Dec. 15, 1924)....	<sup>3</sup> 19, 086, 000
Great Britain.....	Dec. 16, 1911 (consolidated and amended Aug. 7, 1924)....	<sup>4</sup> 15, 037, 000
Irish Free State.....	Dec. 16, 1911.....	<sup>5</sup> 400, 000
Norway.....	Aug. 6, 1915.....	<sup>5</sup> 599, 000
Poland.....	May 19, 1920.....	<sup>6</sup> 1, 825, 000
Portugal.....	May 10, 1919.....	
Russia.....	Nov. 9, 1922.....	<sup>5</sup> 5, 735, 000
Yugoslavia.....	May 14, 1922.....	<sup>6</sup> 484, 000

<sup>1</sup> December, 1923.

<sup>2</sup> December, 1925.

<sup>3</sup> December, 1924.

<sup>4</sup> March, 1924.

<sup>5</sup> 1918.

<sup>6</sup> June, 1925.

*Limited workers' insurance.*—In a number of other States in which sickness insurance has become an integral part of the national labor legislation the scheme does not cover all wage earners but only workers and employees in industrial and commercial undertakings. The principal act and the number of insured persons is given for each of these States in the following table.

<sup>1</sup> International Labor Office. International Labor Conference, tenth session, Geneva, 1927. Sickness insurance (item 1 on the agenda). Geneva, 1926.

TABLE 2.—NUMBER OF PERSONS INSURED UNDER LIMITED WORKERS' INSURANCE SYSTEMS

Country	Date of principal act	Number of persons insured
Estonia.....	June 23, 1912.....	1 46, 000
Greece.....	Dec. 8, 1923.....	
Hungary.....	1907 (Act XIX).....	2 843, 000
Japan <sup>3</sup> .....	Apr. 22, 1922 (not yet in force).....	
Latvia.....	1922.....	4 135, 000
Luxemburg.....	Dec. 17, 1925.....	1 47, 000
Rumania.....	Jan. 25, 1912; Mar. 30, 1888; 1907 (Act XIX).....	2 997, 000

<sup>1</sup> December, 1923.<sup>2</sup> December, 1924.<sup>3</sup> On p. 91 of the November, 1926, issue of the Review there is a statement that a new act was passed in Japan in March, 1926, providing for the enforcement of this law as of July 1, 1926. It is estimated that it will cover about 1,822,000 workers.<sup>4</sup> December, 1925.

In addition, sickness insurance is compulsory for all wage earners in the Upper Rhine, Lower Rhine, and Moselle Départements in France, and in the other Départements for registered seamen and miners; in Italy for wage earners in industry and commerce in the "New Provinces"; and in Switzerland for certain groups of the working population in the two Cantons of Appenzell, the Canton of Bâle-Ville, and the Canton of St. Gall.

*Subsidized voluntary insurance.*—In a number of States which have not introduced a compulsory sickness insurance system wage earners and independent workers in a materially similar situation may become members of sickness funds or mutual aid societies which are of voluntary origin and receive positive material and moral assistance from the public authorities. Some indications as to the number of members of such societies are given in Table 3.

TABLE 3.—NUMBER OF MEMBERS OF VOLUNTARY SICKNESS INSURANCE SOCIETIES

Country	Date of principal act	Number of members
Australia.....	Acts of the different States.....	1 524, 000
Belgium.....	June 23, 1924.....	1 710, 000
Denmark.....	May 10, 1915.....	2 1, 429, 000
Finland.....	Sept. 2, 1897.....	2 62, 000
France.....	Apr. 1, 1898.....	3 3, 300, 000
New Zealand.....	1909.....	1 84, 000
Sweden.....	July 4, 1910.....	2 827, 000
Switzerland.....	June 13, 1911.....	2 890, 000

<sup>1</sup> 1923.<sup>2</sup> 1924.<sup>3</sup> 1923. Includes children of school age.

In addition, a number of States which generally maintain the voluntary principle have special compulsory systems covering wage earners in undertakings which have attained a high degree of organization and are more than ordinarily dangerous (railways, mercantile marine, mines).

## Argentine Pension Law Suspended<sup>1</sup>

THE Argentine pension law (No. 11,289), concerning which there has been so much adverse discussion for over a year, was repealed on September 16, 1926, when the National Chamber

<sup>1</sup> Asociacion del Trabajo. Boletin de Servicios, Buenos Aires, Sept. 20, 1926, p. 409.

of Deputies of Argentina adopted the Senate bill favoring its suspension. The law provided for the establishment of insurance funds against old age and sickness for the following groups of workers: The employees of the Argentine merchant marine, of industrial establishments, of the printing and publishing industry, and of mercantile establishments.<sup>1</sup> The funds were to have been administered by the Government and supported by joint contributions from the employers and workers. According to a report from the assistant commercial attaché at Buenos Aires, dated September 18, 1926, large sums of money were collected, but the administration of the law has never been effective and no enforcement has been attempted for several months past.

The adopted measures declare the law suspended until Congress modifies it or passes another law in its stead, and provides that payments already made to the funds are to be returned to the contributors within six months. All expenses incurred thereby are to be paid by the Government.

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### Amendments to Workmen's Compensation Laws in France <sup>2</sup>

**R**ECENT amendments to workmen's compensation legislation in France include a law dated April 30, 1926, extending the scope of the law passed December 15, 1922, on industrial accidents in agriculture;<sup>3</sup> a law dated July 9, 1926, providing for an increase of the basic wage on which compensation is calculated; and a law dated June 30, 1926, increasing temporary benefits for certain classes of accidents.

#### Accidents in Agriculture

**T**HE act of April 30, 1926, extends the liability for accidents to include not only employees in general agricultural undertakings but also employees on farms engaged in cattle breeding, horse training, stud farms, offices or places of sale connected with agricultural associations or works when the agricultural undertaking is the principal establishment, registered cooperative agricultural societies, mutual insurance funds, mutual credit funds, and farmers' associations.

The section of the original law which exempted farmers working alone or assisted by members of their families and who occasionally employed other persons is canceled and hereafter they will be liable for accidents incurred by either paid or unpaid workers in their employment.

The act becomes effective as regards these provisions in six months from the date of its publication.

<sup>1</sup> For a résumé of this law see *Labor Review*, November, 1924, pp. 215, 216.

<sup>2</sup> *Bulletin du Ministère du Travail*, Paris, April-May-June, 1926, pp. 31\*, 32\*; *Industrial and Labor Information*, Geneva, Aug. 16, 1926, pp. 251-254.

<sup>3</sup> See *Labor Review*, March, 1923, pp. 136-139.

## Increase in the Basic Wage and in Temporary Benefits for Certain Classes of Accidents

ACCORDING to the law of April 9, 1898, the compensation for industrial accidents was calculated on the annual earnings of the employee up to 2,400 francs,<sup>4</sup> all earnings above that figure counting for one-quarter of their value only. Because of increases in the cost of living, the basic wage was increased by amendments passed in August, 1920, and July, 1926. The last amendment fixed the annual wages on which payments are based at 8,000 francs, wages in excess of that sum and not exceeding 18,500 francs to be effective as to one-quarter thereof in the assessments of benefits, and over 18,500 francs to be effective as to one-eighth only, in the absence of agreements to the contrary specifically raising the effective quota.

As the two increases in the amount of the basic wage and in the assessment of accident benefits were not retroactive, several amendments were passed increasing the amount of benefits for accidents incurred prior to the act of August 5, 1920. These amendments provided for the cessation of these special benefits as from June 30, 1926, but as there had been no appreciable change in economic conditions the scale of benefits fixed by the act of June 30, 1924, were extended for a four-year period by an amendment passed June 30, 1926. The amount of compensation payable for such accidents ranges from 20 francs per month for disability of 30 to 49 per cent to 100 francs per month for disability exceeding 80 per cent.

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<sup>4</sup> Franc at par=19.3 cents; average exchange rate for September, 1926=2.9 cents.

## COOPERATION

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### Consumers' Cooperative Congress of 1926

THE fifth congress of the societies affiliated to the Cooperative League of America was held in Minneapolis November 4 to 6, 1926, with 65 delegates representing 132 societies in attendance. Fraternal delegates from labor and other organizations were also present. Greetings were received from the cooperative movements of Azerbaijan, Belgium, Bulgaria, Denmark, Esthonia, Finland, France, Germany, Great Britain, Hungary, Latvia, Lithuania, Netherlands, Norway, Portugal, Russia, Sweden, and Switzerland, from the International Cooperative Alliance, the Women's International Cooperative Guild, and from various trade-union organizations of the United States. Delegates were also in attendance from the Cooperative Union of Canada, from the Manitoba Wheat Growers, the Farmers' Union of Iowa, and the Washington State Grange.

In his report for the biennial period Dr. J. P. Warbasse, president of the Cooperative League of the United States of America, pointed out that in no country has the "trial and error" stage of the cooperative movement lasted so long as here. Mr. Cedric Long, executive secretary of the league, reported briefly on the work of that body, which now has, according to the report, 152 affiliated societies, 104 of which are indirectly affiliated through the four district leagues. In addition to its regular work of supplying societies with cooperative information, compiling articles and pamphlets on various phases of the cooperative movement, supplying lecturers, etc., the league is now furnishing an auditing service, and has been acting as an employment bureau to supply cooperative societies with managers, clerks, and other employees.

#### District Leagues and Wholesale Societies

THE district cooperative leagues, which are in general purely educational bodies, are all of recent origin, the oldest of them, the Ohio District League, having been formed in 1920 as the result of a resolution passed by the league in its congress of that year urging the formation of such regional bodies. Reports from delegates from the four district leagues disclosed the difficulties attendant upon their development. The Northern States Cooperative League operates in the territory covered by the States of Michigan, Minnesota, and Wisconsin. Originally constituted by 14 local societies, it now has in affiliation 101 societies (including the member societies of the Cooperative Central Exchange, which is affiliated to the league), 430 individual members, and 14 fraternal members. This league is probably the most active of all the district leagues. It has a full-time educational secretary, has instituted yearly six-week courses designed for the training of managers and employees in the cooperative movement,

has published two yearbooks, and has been a pioneer in many lines of cooperative effort. It is making a special effort to seek out the isolated, independent stores of its territory with a view to inducing their union and closer cooperation with the general movement. It is now planning to inaugurate an auditing department, to hold courses in various local stores, and to engage in placement work for its members.

Possible amalgamation of the Ohio and Central States Cooperative Leagues is foreshadowed by the reports of their delegates. The Ohio League is finding effective work among the stores of the State very difficult without a full-time worker and its delegate urged the national league to study its situation with a view to amalgamation with the Central States League. The latter league, which now operates only in Illinois, is desirous of extending its field to cover the States of Indiana and Ohio, and the suggestion from Ohio will no doubt be acceptable to it. The Central States Cooperative League, which is an outgrowth of the educational department of the Central States Cooperative Wholesale Society, was constituted at the time of the dissolution of that society. It now has in affiliation some 12 or 13 local societies in Illinois, with a membership of 3,063. One of its planned functions is the promotion of joint buying among the societies. It is also planning an active membership campaign.

The Eastern States Cooperative League has in affiliation 12 societies in New England, New York, and New Jersey. Its activities differ from those of the other leagues in that it has undertaken a joint purchase scheme. Several of its member societies being bakeries, the pooling of flour orders was the initial step, the manager of one of the member societies doing the actual buying and three or four of the larger societies binding themselves to guarantee any losses to this society. Coffee roasting for all the member societies is now being done in the plants of two of the societies. When the capacity of their plants is passed the plan is to have all the roasting done at a central plant to be established in New York.

Those who have followed the cooperative movement are aware that the cooperative wholesale movement has been largely abandoned. In 1919 there were in existence at least 18 wholesale societies throughout the country. One by one most of these societies have been discontinued or have failed. In a number of instances it was a case of trying to run before learning to walk—the undertaking of wholesaling without being familiar with the particular problems in that field and before the local societies were, in sufficient numbers, educated to the patronage of the wholesale. In other cases difficulties of transportation of commodities over the long distances between the wholesale and the local stores made the business an unprofitable one, and this condition was intensified with the dropping out of many of the stores which failed during the depression period. As is seen from the above, a new start is being made, and the first steps toward the ultimate formation of a wholesale are now being taken by at least two of the district leagues, in the promotion, not of wholesaling but simply of joint purchase of certain staple commodities used in large quantities by the constituent societies.

There were, however, delegates in attendance at the cooperative congress from two of the very few remaining wholesale societies—

the Associated Grange Wholesale (Seattle) and the Cooperative Central Exchange (Superior, Wis.), the former an organization serving the cooperative stores in the State of Washington, and the latter an organization of 65 stores with a combined membership of over 8,000 persons.

#### Education in Cooperation

THE need of continuous and ever-increasing efforts toward the education of the membership and of others in the meaning and ideals of cooperation was stressed throughout the congress. Education of the employees, not only as to cooperative principles but as to the goods handled by the stores so as to be able to explain them whenever necessary, and of the members and customers so as to enable them to judge qualities were among the methods suggested by Mr. A. W. Warinner of the Central States Cooperative League. The question of utilizing the employee's services as a means of reaching the customer raised some debate, some delegates being of the opinion that the clerks were working under too high a pressure already to impose this additional duty upon them, and other delegates holding that only in this way could many housewives be reached. Other avenues of education suggested were the employment of a person for the particular job of education or the utilization of the services of the women's guild for this purpose.

One difficulty encountered by the movement for which a solution must be sought is that of making cooperators of the employees. One society is meeting the difficulty through a school for its employees held every Friday; another through weekly meetings of the clerks.

#### Uniformity in Accounting

ONE of the ever-present problems in the cooperative movement is that of the keeping of accounts, as poor bookkeeping has been one of the most fruitful causes of failure of cooperative stores. As a move toward remedying the situation, several cooperative agencies have inaugurated auditing services and are now considering the best way in which to secure uniformity in accounts. Uniformity is desirable as a matter of general efficiency, as pointed out by Mr. H. V. Nurmi, auditor, of the Cooperative Central Exchange. If each society is keeping its books after its own fashion the auditor must first acquaint himself with the system, thus losing time and increasing the cost of his services. Uniform forms are now in use among the stores served by each of the wholesales represented at the congress. Money is also saved in this way in the purchase of forms. Better and better results are being obtained each year, and the costs of auditing are decreasing.

Mr. A. S. Goss, of the Associated Grange Wholesale, stated that when that organization began its work along this line 46 of the 64 societies in its field were in difficulties and were about to be closed. The creditors were induced to turn the finances of these stores over to the wholesale, which inaugurated a system of daily reports of sales, purchases, bank balances, and checks. A monthly statement was also furnished. This afforded an opportunity not only for study of the weak points of each store but of comparisons of one store with

another. It was found that while some stores were operating for as low as 2 or 3 per cent of sales, on the average it was costing nearly 11 per cent to do business. This has now been reduced to about 8 per cent, a saving to the members of approximately 3 per cent. Along with a monthly statement to the board of directors of the stores the wholesale sends an interpretation of the salient facts shown by the statement, pointing out any bad or dangerous condition.

#### Relations between the Consumers' and the Cooperative Marketing Movements

IN A discussion of the relations which should exist between the consumers' and the cooperating marketing movements, Mr. Goss suggested that the real solution would be for the consumers' organizations to own and operate the farms. This, however, is a long way off. Meanwhile the farmer is in difficulties and is trying to solve his troubles through cooperative marketing. In these marketing associations, he asserted, are being developed the best possible materials for the consumers' cooperative movement, for the cooperating farmer comes to realize that any saving made through cooperative marketing does him no good if he must spend it all in increased prices for the goods he must buy. And so he turns to the organization of a cooperative store to supply him with farm and household requisites. In this connection the appointment by the Cooperative League of a committee to act as liaison between the consumers' and farmers' organizations was recommended.

Mr. George Keen, secretary of the Cooperative Union of Canada, stressed the fact that while there is a fundamental difference in the aims of farmers' and consumers' societies there is a great need of coordinating the efforts of the two. He pointed out that the farmer, selling as he does in the competitive market, is apt to have or develop the competitive attitude of mind. If this competitive attitude continues, the task of coordinating the cooperative marketing and consumers' movements will be more difficult, but if the cooperative habit of mind is developed the relations should be good.

#### Other Matters Before the Congress

OTHER matters discussed by the congress were the relations of consumers' cooperation and (1) the labor movement, (2) cooperative insurance, and (3) credit unions; the question of the proper celebration of international cooperative day; the publication of a cooperative yearbook; the establishment of a national cooperative training school; and amendments to the league constitution.

#### Resolutions

AMONG the labor and cooperative resolutions passed by the congress were those—

Recognizing the cooperative movement as a working-class movement which should therefore seek the cooperation of all workers' and farmers' movements, and urging upon the constituent societies the use of union-label goods and the employment of union workmen wherever possible.

Protesting against the use of the injunction against labor and cooperative organizations.

Recommending the appointment of a committee to study existing cooperative insurance societies in this country and abroad, with a view to the undertaking of the formation of an insurance society.

Urging the affiliated societies to undertake the formation of junior cooperative leagues, with a view to educating the children in cooperative principles.

Expressing the sympathy of the congress for the Italian cooperative movement which has been almost entirely destroyed by the Fascisti, and supporting the idea of an international meeting of cooperative societies to combat international Fascism.

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## Cooperation in Foreign Countries

### Austria

THE International Cooperative Bulletin for September, 1926, contains an article by Mrs. Emmy Freundlich describing the condition of the cooperative movement in Austria in 1925.

Referring briefly to the extremely unfavorable conditions which have had to be met, both by cooperative societies and private enterprises—currency inflation, repartition of the country, general financial stagnation, etc.—the article states:

No other wholesale society has ever experienced what our cooperative wholesale society had to pass through. In a night it lost three-fourths of its membership; its productive works and departments lay within the boundaries of various States; it was separated from its members and placed on new ground. The principal duty at that time was to maintain the life of our movement, to save the old organization, and to do everything in order to prevent the new conditions in the State from giving it its deathblow. Our wholesale society has survived this crisis; it has gained the new members it needed, and during the most difficult time of its existence made use of the help which the State offered. After our membership again increased we were able to resume our self-help activities, to establish the labor bank, and, although our present government is none too favorably disposed toward the cooperative movement, we were able to overcome the crisis with the means at our disposal. Our balance sheet, based on the gold standard, shows that we have well overcome the difficulties of the crisis.

During the time of the inflation we had written down all recently acquired property to one penny, and we are now able to appreciate our possessions carefully, yet adequately.

Our various interests to-day are valued at 1,304,260 schillings<sup>1</sup> and our fixtures at 1,247,000 schillings. The various reserve funds, share capital and taxation reserve fund amount to 1,259,422 schillings, while the appreciated or still reserves total 2,101,513 schillings. Our wholesale society emerges sound and hale from the difficult period of the inflation.

The balance sheet for 1925 gives the turnover as 70,770,269 schillings. All other figures down to the fixtures are the same as the figures of the gold balance sheet. Considering that Austria is a small and poor country, with a population of six and one-half millions and a percentage of unemployed as high as that of England, one will readily admit that the turnover is satisfactory. The net surplus is small, owing to the bad economic conditions in general, and the margin between the retail and wholesale price was necessarily small, as otherwise the people would have been unable to buy. There was an increase in the gross

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<sup>1</sup> Schilling = approximately 14.15 cents.

surplus of 7 per cent, or 286,079 schillings, while the net surplus was 58,539 schillings. Only a betterment in the general economic conditions can bring about an improvement in the turnover of our wholesale society.

### Czechoslovakia

THE Statistical Office of Czechoslovakia has recently issued a report (1926, No. 14) on the cooperative societies of that country, in which for the first time the statistics cover both the credit and the noncredit societies. The combination was made in order to obtain a view of the whole cooperative movement. The statement below shows the number of cooperative societies of each type on December 31, 1924:

	Number of societies
Credit societies.....	6, 151
Other types:	
Agricultural societies.....	3, 740
Industrial and commercial societies.....	1, 607
Consumers' societies:	
Consumers' societies proper.....	1, 310
Housing societies.....	1, 349
Other.....	17
Total.....	2, 676
Public utility societies.....	63
Total.....	14, 237

No data are given as to membership, amount of business, etc.

### Denmark<sup>2</sup>

THE sales of the Danish Cooperative Wholesale Society in 1925 amounted to 165,340,137 kroner,<sup>3</sup> about 4,000,000 kroner less than in the preceding year. "This, however, was entirely due to the considerable fall in prices following the great rise in value of the krone on its way to par during the last six months of the financial year." Profits were also affected, amounting only to 3,699,473 kroner, but the society was able to pay a patronage dividend of 3 per cent.

Goods manufactured by the wholesale amounted to 47,039,125 kroner, and the quantity of goods distributed by it far exceeded that of any preceding year.

On December 31, 1925, the society had reserves of 21,402,936 kroner, depreciation reserves of 9,700,000 kroner, an insurance fund of 1,000,000 kroner, and paid-in share capital of 1,468,400 kroner.

Affiliated societies numbered 1,804, and their combined membership numbered 337,500 persons.

### Russia

THE Russian Review (Washington, D. C.) for October, 1926, contains an article on cooperative societies in the Soviet Union, including the agricultural societies. According to this article, the system of agricultural cooperative societies in that country came

<sup>2</sup> International Cooperative Bulletin, London, September, 1926, p. 281.

<sup>3</sup> Krone at par=26.8 cents; average exchange rate in December, 1925=24.9 cents.

into existence only in 1922, but has rapidly expanded, so that at the beginning of 1926 there were 31,000 federated agricultural cooperative societies and 20,000 independent societies. The latter, it is explained, include societies for the collective use of agricultural implements, soil-improvement societies, collective farms, etc.

Some 6,500,000 peasant farmers, representing 28 per cent of all the farms of the country, belong to agricultural societies, and the annual business of these societies now reaches the amount of 1,200,000,000 rubles.<sup>4</sup>

The peasants owning one horse and one cow only are the main element constituting the membership of the agricultural cooperatives. The poor and middle peasants form the majority among the members of the cooperatives. In some branches of agriculture the cooperatives are engaged in marketing up to 85 per cent of the peasant produce, but in the entire Soviet Union the cooperatives are handling only 16.5 per cent of the peasant produce. With regard to the sale of the raw material output, as well as in providing the villages with machinery and other necessary articles, the cooperatives are conducting their activities on the basis of agreements with State industries and State trading organizations.

The report states that while the resources of this branch of the cooperative movement are still inadequate—their share capital amounting to only 22,000,000 rubles, an insufficient sum with which to handle the business done—the Government is aiding these societies by loans.

Some 20,000 enterprises engaged in working up and assorting the agricultural products of the farms have been organized by these societies. The development of collective farms is another activity of the agricultural cooperative societies.

The growth of the collective farms is expressed not only in the increase of the number of collective farms and of peasant farms included in the latter but also in the strengthening of their importance in the agricultural economy; in the improvement of the mutual relations with the surrounding peasant population, and also in the beginning specialization of the collective farms.

In 1925 the number of collective farms had grown to 21,923, as compared with only 12,861 two years before, and include 8,030,000 acres, with a farming population of 1,085,456. These collective farms are divided into "communes," in which the whole land, with the implements, etc., belongs to the group, and individual members can not withdraw their share; "artels" for cooperative landholding and tilling, the members reserving the right to withdraw and to return to the individual tilling of their share; and societies for the collective use of machinery for individually owned lands.

Soviet Russia proper contains 1,935 communes, 9,647 artels, 4,726 societies for the collective use of machinery, and 37 societies engaged in special branches of agricultural production. In the Ukraine there are 381 communes, 4,639 artels, and 558 machinery societies.

### Sweden<sup>5</sup>

THE favorable economic conditions existing in Sweden during 1925 were reflected in the condition of the cooperative movement. At the end of 1925 the Kooperativa Förbundet (the central

<sup>4</sup> Ruble at par=51.46 cents.

<sup>5</sup> International Cooperative Bulletin, London, September, 1926, p. 286.

union) had in affiliation 902 societies, whose total business during the year amounted to 259,700,000 kronor.<sup>6</sup> Of this amount, 36.5 per cent was of goods purchased from the wholesale society. The share capital of the federated societies amounted to 39,536,052 kronor, or 68.90 kronor per member. The net surplus on the year's business amounted to 11,099,448 kronor.

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<sup>6</sup>Krona at par=26.8 cents; exchange rate in 1925 approximately at par.

# LABOR CONGRESSES

## Convention of the American Federation of Labor, 1926<sup>1</sup>

THE forty-sixth convention of the American Federation of Labor was in session in Detroit from October 4 to 14, 1926.

According to the secretary's report to the convention, the federation includes 4 departments, 107 national and international unions, 769 local department councils, 833 city central bodies, 380 local trade and Federal labor unions, and 29,417 local unions. The average paid-up and reported individual membership for the fiscal year ending August 31, 1926 was 2,813,910, a decrease of 63,387 as compared with 1925.<sup>2</sup>

Receipts for the year aggregated \$518,451.49 and expenses \$519,113.33. There was a balance of \$212,391.96 on August 31, 1926, of which \$193,095.78 was in the defense funds for local trade and Federal labor unions.

The following amounts were reported as paid out in trade-union benefits for the year 1925-26 by 23 national and international organizations.<sup>3</sup>

Death benefits.....	<sup>4</sup> \$1, 263, 451. 22
Death benefits to members' wives.....	50. 00
Sick benefits.....	432, 403. 81
Traveling benefits.....	9, 869. 25
Tool insurance.....	140. 00
Unemployment insurance.....	126, 012. 95

The sums reported above are in the greater number of cases those disbursed directly by the international unions. These totals, therefore, represent but a small portion of the aggregate amounts paid out in trade-union benefits.

A summary of some of the more significant discussions and resolutions is here presented.

### Company Unions

THE opening address of Mr. William Green, president of the American Federation of Labor, dealt at some length with the question of company unions. In his judgment, such unions do not "permit the worker to exercise his own freedom, to exercise his own opinions, to put into effect his own will; he is always controlled by those who shaped and formed this organization and conferred it upon him. The working people will not long subject themselves to

<sup>1</sup> American Federation of Labor. Report of proceedings of forty-sixth annual convention (advance copy), Detroit, Mich., Oct. 4-14, 1926, and report of the executive council to the convention. [Washington, 1926.]

<sup>2</sup> It is estimated by the federation that there were at least 500,000 members for whom the per capita tax was not paid up because of strikes or unemployment.

<sup>3</sup> In addition to the benefits listed here the typographical union reported \$1,007,650 in old-age pensions and the barbers \$95,008 in such pensions and disability benefits.

<sup>4</sup> Includes some total disability benefits.

such subordination of conscience, judgment, or will, because if there is any one characteristic of the working people of our land that stands out more prominently than another it is this determination to be independent and free in America—economically free and politically free.”

The executive council of the federation is investigating the development of company unions and has collected considerable data on them. The concluding paragraph of the section of the council's report which treated of this subject reads as follows:

The problem of company unions is both of fundamental concern to trade-unions and industry and of very real significance as a social policy. The quality of initiative that is bred under company union régime must necessarily be reflected in the various other relationships which make up workers' lives. We can not escape the interpenetration of paternalism in any important portion of workers' lives. The effect upon industry itself would be to retard progress. Not even those unfriendly to unions deny the lifting impetus to progress of industry, of the high standards of work and pay which American trade-unions have established. Our demands have brought technical progress and improvements in organization in many industries.

The American Federation of Labor will oppose to the full extent of its power the efforts of employers to compel their employees to join company unions.

A resolution was unanimously adopted authorizing the executive council to assess the federation's affiliated unions in order to create a sufficient fund to conduct a study and campaign for the purpose of eliminating employer-controlled unions and shop-representative plans and that all affiliated unions be called upon to assist in such study and campaign.

### Reduction of the Hours of Labor

**I**N THE debate in connection with the adoption of the resolution “favoring a progressive shortening of the hours of labor,” statistics were submitted showing the enormous recent increases in production in various industries. The full text of this resolution is given on page 15 of this issue.

In discussing the report of the committee on the shorter work day, Mr. John P. Frey, president of the Ohio State Federation of Labor, declared that “the wage earners in this country are not only producing at a rapidly increasing volume, sometimes doubling their output per man in a year, but the American workman, because of this fact, is working for a lower wage rate for what he produces than the workmen in the so-called low-wage countries of Europe.”

### Education

**M**R. WILLIAM GREEN declared that he regarded workers' education as “a strong arm of the American Federation of Labor.”

The progress of the workers' education movement since the federation's 1925 convention was reviewed both by the executive council and Spencer Miller, jr., secretary of the Workers' Education Bureau. Mr. Miller estimated that 5,000 adult workers had been added to those enrolled in systematic instruction classes, constituting a total of over 40,000. In the past year there has also been an increase in the number and geographical distribution of labor's educational

centers. Through open forums, labor chautauquas, and debates the message of workers' education has been brought to tens of thousands who had never previously heard it. Many State federations of labor have made an impressive response to the appeal to make education one of their functions.

Workers' education institutes and summer labor schools have notably increased. The research department of the Workers' Education Bureau is expanding its activities. The Workers' Education Press has been incorporated under the New York State laws and important additions have been made to the bureau's publications.

The federation's committee on education, the executive council reported, has 243 local cooperating committees, and included within its work of the past year the continuation of a survey of social textbooks, cooperation with the research department of the American Federation of Teachers, an investigation of a number of educational developments, the furnishing of local committees with data on provisions for recreation, an inquiry concerning the health activities of labor unions, and the issuance of a pamphlet of health rules.

#### Organization Work and Allied Action

SCARCITY of funds was declared to have handicapped the federation's progress in organization, although over \$105,000 was spent along this line during the past year. The work of the salaried organizers was supplemented by 1,774 volunteers. A special seven-months' campaign was carried on by the Union Label Trades Department. In this connection a labor film was shown at 529 meetings in 396 cities.

The results of a special organizing campaign among woman workers in New Jersey was reported as not meeting with as much success as was hoped for. The convention approved, however, the continuation of the efforts to unionize women. Miss Rose Schneidermann, fraternal delegate from the National Women's Trade Union League, discussed among other matters the obstacles in the way of organizing women, declaring that new problems in this connection "are a challenge to us all" and "call for a new approach and a new technique."

The committee on organization agreed with the recommendation of the executive council's report that organization work "must always be kept in the forefront."

Among the adopted resolutions more directly relating to unionization matters were included plans to organize the automobile industry, proposals to institute a labor chautauqua to promote southern organization, requests that all State federations of labor and city central bodies make every possible effort to organize the laundry workers, and that unions employ union office workers, and a pledge to support the bakery and confectionery workers against the so-called Ward bread trust.

The full text of the resolution to organize the automobile industry is given below:

Whereas there are employed in the automobile industry many thousands of working people eligible to membership in the American Federation of Labor, the industry as a whole, however, being without organization at this time, except in some instances so-called "shop" or "company" organizations; and

Whereas the metal trades department of the American Federation of Labor having under consideration for some time the question of bringing about the organization of the working people in the automobile industry, but the task being so great that only through united action, led by the American Federation of Labor, can we succeed in bringing about the desired results; and

Whereas all organizations affiliated with the American Federation of Labor are interested, directly or indirectly, in the organization of this industry: Therefore be it

*Resolved*, That the president of the American Federation of Labor call a conference of all national and international organizations interested in the automobile industry for the purpose of working out details to inaugurate a general organizing campaign among the workers of that industry; and that the question of jurisdiction be suspended for the time being, so that the desired result sought for in the resolution may be accomplished.

A special conference of national and international officers was called by the president of the federation on October 10 to consider raising funds for the striking textile workers of Passaic.

The previous day Rabbi Stephen S. Wise made a strong appeal "for the organization from top to bottom of the textile workers of America."

#### Civil Service Employees

THE following are some of the changes in Government employment which were favored by the convention: Increased pay for Post Office Department messengers, watchmen, and laborers; the elimination of "speed-up practices," instituted as so-called efficiency systems; the extension of the Saturday half holiday; the placing of the Navy and War Departments on a 44-hour work week basis; the standardization of annual and sick leave; the creation of a civil service council of appeals; proper recognition of night work; substantial advance in the rates paid to injured workers under the Federal compensation act; and the further liberalization of Federal retirement provisions.

#### International Relations

THE report of the executive council declared:

Our interest has been concerned with the welfare of wage earners of other countries. We have refrained from interference in the domestic and internal affairs of either Mexico or other Latin-American countries.

The committee on international relations approved the council's attitude on this matter and recommended that the latter body be authorized to make an inquiry into the relationship of the Mexican Federation of Labor and the Mexican Government for the information of the unions affiliated with the American Federation of Labor.

Resolutions were passed directing the president of the American Federation of Labor to appoint American members of a joint American-Mexican Commission on Migration; and in support of a bill to provide for deporting certain aliens, so-called seamen, left by departing vessels.

Two resolutions, one for the modification of immigration laws to open the gates to persecuted and oppressed European workers and the other for the recognition of the Soviet Government, were defeated.

The convention also reaffirmed its opposition to proposed laws providing for the registration and fingerprinting of aliens, and

denounced through a declaration of the committee on resolutions the Fascisti form of government.

The delegates unanimously approved the statement of the committee on international relations that it was looking forward "with anticipated pleasure to the time when organized labor will be fully united and affiliated to the International Federation of Trade Unions."

#### Wages

ACCORDING to the report of the executive council, the public, in general, is beginning to understand that with the continuance in the future of the great trend toward mass production, such trend will have calamitous results unless the purchasing power of the workers be enlarged by higher incomes.

In considering the wage section of the council's report, the committee on resolutions made the following statement, which was unanimously indorsed by the convention:

The industry that can not pay high wages is an industry self-convicted of inefficient management and wasteful methods. Organized labor may help to indicate the sources of waste and inefficient methods so that management may make the necessary changes. Cooperation in this field will lead finally to consideration of the conditions under which work orders should be formulated.

In addition to the perfecting of production technique there is the development of units of measurement so that industrial output may be evaluated per individual and per plant. For help in this field we must turn to technicians. This work is now being undertaken by the United States Department of Labor. It is hoped this will form a permanent service in addition to that now rendered in the gathering of cost-of-living and other forms of essential data.

#### Union-Management Cooperation

WHEREVER collective bargaining is practiced in industry, union-management cooperative undertakings, the executive council reported, "are more or less definitely developed" to promote efficiency in production. The council holds that the main responsibility for the effective development of the machinery rests with management, but the trade-union movement is willing and eager to do its full share.

The convention indorsed the presentations of the committee on resolutions on the need for union-management cooperation.

#### Labor Banking

IN connection with labor banking and other trade-union financial ventures a note of warning was sounded in the report of the executive council against the growing tendency to draw the attention of trade-unionists from "the more primary need of trade-union organization and trade-union functioning." The convention, however, unanimously adopted the recommendation of the committee on resolutions to commend the progress made on labor insurance and to urge the increased development of such enterprise.

#### Employee Stock Ownership

THE convention went on record in favor of cautioning wage earners against the majority of employee stock ownership plans which

with some exceptions are regarded by the executive council as "a supplementary method of retarding the legitimate development of the trade-union movement."

#### Improvement of Federation's Services

THE need for improved methods and practices in keeping union records was stressed by the executive council, and further developments were suggested for the operation of the federation's office as a central clearing house for trade-union information. No effort has been spared to expand the service and increase the value of the legal information bureau.

#### Watson-Parker Act

THE enactment of the law of May 20, 1926, for the arbitration of railway disputes was pronounced by the executive council as evidence of "perhaps the most pronounced progress made this year in eradicating the most subtle form of denial of the right of freedom to collective agreements."

#### Other Action of the Convention

A RESOLUTION in favor of the appointment of a congressional commission to investigate the working, living, industrial, and financial condition of Porto Rico was referred to the executive council. The convention also urged continued effort by the federation to secure a compensation act for longshoremen and harbor workers, requested an investigation of harmful effects of use of air hammer, opposed race discrimination, favored further efforts to secure ratification of the child-labor amendment, and indorsed the principles and policies of American organized labor's nonpartisan political campaign.

Mr. William Green was reelected president, and Los Angeles was selected for the meeting place of the 1927 convention.

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### Annual Meeting of Trades and Labor Congress of Canada, 1926<sup>1</sup>

THE Trades and Labor Congress of Canada held its forty-second annual convention in Montreal September 20-25, 1926. The action of the convention on various matters is indicated below:

*Health and safety.*—Favored the prohibition of commercial manufacture of clothing in workers' homes; the compelling of motor busses to comply with the standard safety regulations for public carriers; stricter regulations in regard to licensing motion-picture operators in the Province of Quebec, and to the use of the paint-spraying machine and the discarding of such machine when it is a menace to the workers' safety and health; legislation for the protection of workers under compressed air in excavations, tunnels, etc.

*Marine affairs.*—Requested amendments to the Canada shipping act.

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<sup>1</sup> Canadian Congress Journal, Ottawa, October, 1926, pp. 9-14.

*Education.*—Urged the extension of free education and free textbooks in certain Provinces.

*Minimum wage legislation.*—Instructed the congress executives to urge the extension of minimum wage laws to include male as well as female workers.

*Workmen's compensation.*—Favored improvements in existing compensation laws and pledged support to workers in the Quebec Province in their efforts to secure the establishment of a compensation board similar to those in the other Provinces.

*Hours of labor, right to organize, etc.*—Demands were reiterated for the 8-hour day, and protest was made in regard to the unreasonable hours which minors are frequently called upon to serve in financial institutions and also against piecework and contracting out by steamship and railroad companies.

Improvement in the working conditions of Federal office cleaners was requested and freedom of organization for public employees was urged, and also measures for preventing "intimidation of workers when exercising their right to organize."

*Picketing.*—The report of a special committee on picketing condemned the issuance of injunctions in labor disputes and urged that the criminal code be amended to insure the workers the right to peaceful picketing in strikes and lockouts.

*Election.*—Mr. Tom Moore was reelected president by acclamation. The next annual congress will be held in Edmonton.

## English Trades-Union Congress of 1926

THE proceedings of the fifty-eighth annual trades-union congress, held at Bournemouth, September 6 to 11, are reported in the Ministry of Labor Gazette for September, 1926. The number of organizations affiliated with the congress was 174, and 697 delegates were appointed to attend. The industries represented and the membership of each group, both for 1925 and 1926, were as follows:

NUMBER OF ORGANIZATIONS, AND MEMBERSHIP THEREOF, REPRESENTED AT ENGLISH TRADES-UNION CONGRESSES OF 1925 AND 1926, BY INDUSTRIES

Industry	1925		1926	
	Number of organizations	Number of members	Number of organizations	Number of members
Agriculture.....	1	30,000	1	30,000
Mining and quarrying.....	8	832,543	8	832,641
Metal engineering and shipbuilding.....	44	623,132	45	601,382
Textiles.....	27	403,171	27	414,434
Clothing.....	9	160,447	9	167,798
Woodworking and furnishing.....	8	80,569	7	82,616
Paper, printing, etc.....	13	167,665	13	170,280
Building, decorating, etc.....	9	295,380	9	299,495
Railway service.....	3	454,924	3	454,786
Other transport.....	7	404,126	7	402,692
Commerce and finance.....	8	166,297	9	172,680
Public administration.....	12	154,045	12	159,677
Miscellaneous.....	17	78,259	18	78,318
General labor.....	6	500,424	6	498,615
Total.....	172	4,350,982	174	4,365,414

It will be seen that there is but little difference in the figures of the two years. In the metal engineering and shipbuilding, transport, and general labor groups the membership showed a decrease, but in most of the others there had been a small increase, which was especially noticeable in the textile, clothing, and commerce and finance groups.

On the first day resolutions were passed calling upon the Government to extend the principle of unemployment insurance to agricultural workers, and "protesting against workers in one occupation being prevented from following other occupations, and, in particular, condemning 'the attempts being made to keep farm workers on the land by refusing them employment in sugar-beet factories, and the indirect encouragement which is being given to these attempts by the Ministry of Labor.'" Another resolution called for an amendment of the workmen's compensation acts so they will cover every disease arising from an occupation or in the course of employment and to increase the amount of compensation. A resolution demanding that there should be no difference in the rates of unemployment benefit paid to single men and single women was defeated by a heavy majority.

On the second day the question of the one big union came up. A resolution directly urging the congress to take certain steps "with the object of one big union being reached as the ultimate goal of working class organization," was laid aside in favor of one expressing regret for the little advance made in the direction of industrial unionism, and instructing the general council to call conferences of the trade groups in order to arrange for the merging of the separate unions within these groups into industrial unions. One resolution protested against the continuance of the emergency powers act, and another against the decision of the Minister of Labor to abolish the grocery and provision trade boards and not to establish trade boards in the meat distributive, catering, and drapery and allied trades. A request made by the general council that the congress should impose a tax of 1 penny per member per year for three years in order to raise capital to develop Easton Lodge as a residential educational center was voted down. Action in regard to a section of the general council's report was tantamount to strong approval of the council's attitude, which was that "affiliation to the minority movement, in the opinion of the council, was not consistent with the policy of the congress and the general council, who could not therefore approve of affiliation to the national minority movement." This was carried by a vote of 2,710,000 to 738,000.

The chief business of the third day concerned the duties and powers of the general council. The general strike had shown some of the advantages and disadvantages of intrusting extensive powers to the council, and opinion was divided, one party wishing to increase its powers in connection with industrial disputes, while another wished further consideration of the matter. The result of the discussion was that the congress took no action on the question, leaving the question to be dealt with at a special conference of executives which is to be held after the mining lockout is settled.

On the following day an effort was made to bring the conduct of the general strike before the congress. The chairman, however, stated that an arrangement had been made not to bring in a report

on this topic until the mining dispute was over, and the congress sustained this plan.

Resolutions were adopted calling upon the Government to ratify the Washington hours of work convention, expressing appreciation of the financial assistance given the miners, and strongly opposing any attempt to limit the right of civil-service employees to affiliate with outside industrial and political bodies, "pledging strenuous opposition to any new restrictions, and, in the event of such restrictions being imposed, pledging the industrial and political labor movements to work for such amendments of law and practice as might be necessary to remove them." A number of miscellaneous subjects were dealt with on the concluding days.

Among the other subjects with regard to which resolutions were moved at the congress were the position of trade-union staffs; the sanitary condition of shops, offices, and warehouses; decasualization, and the guaranteed week (with special reference to the building trades); the prevention of systematic overtime; the abolition of home work in the clothing trades; the payment for holidays for all workers; the ratification of the night work in bakeries convention, approved at the International Labor Conference of 1925; the reduction of the State grant under the national health insurance scheme; the postal check system; decimal coinage; and metric weights and measures.

During the week the first annual meeting of the trades-union women was held, "when resolutions were passed urging unions with woman membership to encourage women to take a larger share in the administration and control of the unions; the formation of women's trade-union guilds, and the necessity for increased education in trade-union principles among young people entering industry. A discussion took place on the system of family allowances, a memorandum on which was presented and referred to delegates for further consideration."

## WELFARE

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### Miners' Welfare Work in Great Britain During the Coal Strike

**A**N ARTICLE on "Welfare work during an industrial dispute," by Gilbert Hall, in *Industrial Welfare* (London), August, 1926 (pp. 255-259), gives an account of the way in which this work has been carried on during the British coal strike. The writer, who is an organizing lecturer of the joint committee for adult education under the miners' welfare fund, believes that there is too great a tendency to assume that a dispute in an industry necessarily leads to giving up the welfare work during the continuance of the strike, since it may be made even more concentrated and beneficial in such a period than in normal times. That this is true is shown by the way in which this work, particularly that of the educational committee, has been carried on during the recent strike.

The work of the education committee is ordinarily ended early in May as indoor work can not be carried on so well during the summer months. As soon as the strike was declared, however, the committee started an intensive educational campaign. All the local centers had been notified of the plans of the committee in the event the strike took place and as soon as work stopped in the industry the organizers made tours, under the direction of the writer, through all the mining centers in the two counties, for the purpose of getting the work organized in such a way that it could be run from a central point so long as the stoppage lasted. Making arrangements was not easy as the main interest of the people was the strike and it was difficult to get or hold their interest in a matter which seemed to them to be of minor importance. The local welfare committees through which such work is carried on in normal times were of little use, as in most cases they were not functioning. It was found possible, however, to work through the various lodge committees of the miners' associations, and contact was made, as far as possible, with individuals who in the past had given indication that they would be especially useful in arranging affairs to occupy the time and attention of the people during their period of idleness.

Some difficulty was met in securing lecturers, as those on the staff who were college instructors were getting ready for the summer-term examinations and were not all available, but a large enough number having been found and tried out a "stoppage list" of lectures and lecturers, together with the dates on which they were available, was distributed to all the mining communities.

In addition to lectures and talks on nonvocational subjects, special attention was paid to gardening, poultry keeping, etc., since it was the season when such work would be in full swing. The educational point of view also was not lost sight of in the musical and dramatic

programs provided, as these always took the form of lecture recitals, nor in the programs on which one-act plays were presented.

From the time the strike began to the 1st of July 113 lectures, 10 recitals, 36 concerts, and 9 bills of plays were given, at which the total attendance was approximately 40,000. The lecturers' subjects covered economics, industrial history, music, literature, education, general and local history, geography, science, and the coal commission's report.

An educational camp for boys between the ages of 14 and 18 was also organized, at which two groups of 50 boys were taken care of for a week each. With the onset of real summer weather the purely educational activities were dropped and attention turned to outdoor sports, but it was considered that during the three months that this work was carried on it had had a real vital social value and had strengthened the foundations of the activities of the committee to an extent which would not ordinarily have been possible with less than two or three years of hard work.

## WOMEN IN INDUSTRY

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### Status of Women in the Government Service in 1925

A REPORT by the Women's Bureau of the United States Department of Labor on the status of women in the Government service in 1925 (Bulletin No. 53) shows the present opportunities for advancement among women employed by the Government. A slow but certain widening in the field of women's service is shown in comparing present conditions with those in 1919, when a similar study was made. In 1919 women were excluded from more than one-half of the examinations given for Government positions while now, according to civil-service regulations, all examinations are open to women. However, although all positions are potentially open to women, actually the Civil Service Commission can not place a woman in a position, even though she may have the highest rating, when the officials requesting the appointment specify that the appointee shall be a man.

The report is of special interest to women who wish to know the practical possibilities of Government employment and the kinds of work which offer the greatest opportunities for advancement. The classification act of 1923 fixed the minimum salary for positions requiring "professional, scientific, or technical training equivalent to that represented by graduation from a college or university of recognized standing" at \$1,860, so that in this study only records of women receiving salaries of \$1,860 or over have been reviewed. Although the larger number of women receiving \$1,860 or more a year are found in the stenographic and clerical positions, greater opportunities for advancement beyond this minimum salary are found in the professional and scientific fields. Accounting and auditing, for instance, claimed between 8 and 9 per cent of the woman employees; legal work, nearly 5 per cent; fact collection, compilation, and analysis, more than 4 per cent; scientific research and investigation, 4 per cent; administrative work, more than 3 per cent; library service, 3 per cent; and editing and translating, nearly 2 per cent.

Practically all the women in the departments surveyed who were engaged in auditing and accounting were found to be in the Treasury Department; by far the most of those in legal work, in the Interior Department; 38 of the 94 in fact collection service were in the Department of Labor, 19 in the Department of Commerce, and 14 in the Department of Agriculture; 63 of the 87 women engaged in scientific research and investigation were in the Department of Agriculture, 35 of them in the Bureau of Plant Industry as botanists, plant pathologists, plant physiologists, and nematologists. Those in administrative work were scattered, with the biggest groups in the Department of Agriculture, the Department of Labor, and the Treasury, the highest positions filled by women being a member of the Civil

Service Commission, a member of the Employees' Compensation Commission, the chief of the Bureau of Home Economics in the Department of Agriculture, the chief of the Children's Bureau and the director of the Women's Bureau in the Department of Labor, and the Assistant Director of the Mint. In library service 42 of the total of 67 women were in the Department of Agriculture, and the majority of those doing editing and translating were found in the Departments of Labor and Agriculture.

Of the employees in the services studied by the Women's Bureau about one-half were women. Of the approximate one-third of all these employees who received at least \$1,860 a year only one-fifth were women and four-fifths men. Stated in terms of the total number of men and of women, nearly one-sixth of the women and approximately one-half of the men received \$1,860 or more a year.

The beginning salary of clerks and typists usually is \$1,140; that of stenographers \$1,320. The highest salary paid to men or women in these positions was \$2,700, but this was received by only 1 woman stenographer and 8 woman clerks of the thousands employed in these positions in the services included in this study. The beginning salary for all occupations classified as scientific or professional is \$1,860. The highest salary received by a woman in this service (exclusive of the heads and assistant heads of scientific and professional bureaus) was \$5,200, while the highest received by men was \$6,000. The highest salary received by any woman among those included in this survey was \$6,500, the amount paid to one woman—the Civil Service Commissioner. Only 10 of the thousands of other women received as much as \$5,200, and only 35 received \$3,600 and more.

The fact that 45 per cent of all the women receiving \$1,860 and more received exactly that amount while 55 per cent were in positions paying more than that amount is due primarily, the report points out, to the fact that more than half of the woman clerks classified as receiving \$1,860 and over and nearly three-fifths of the woman stenographers and typists so classified—the occupations in which two-thirds of the women covered in the study are employed—received salaries of exactly \$1,860 per annum.

Contrasting the salaries of women and men the report shows that in positions paying \$1,860 and over in which both women and men were employed the proportions of women were always greater in the lower salary groups and smaller in the higher salary groups than were the proportions of men. For instance, in positions paying \$1,860 and over, 45 per cent of the women and approximately 15 per cent of the men received just \$1,860 a year; almost 40 per cent of the women and only 24 per cent of the men received between \$1,860 and \$2,400; 15 per cent of the women and 61.5 per cent of the men were paid \$2,400 or more per year. In fact, in scientific positions, in the fact collection and analysis group, and in the accounting and auditing service a little more than one-fourth of the woman employees earning \$1,860 and over in each group received just \$1,860, while less than 10 per cent of the men in each group were paid as little as this amount.

The report also shows that the readjustments of salary rates resulting from reclassification of positions in the departmental service increased the salaries of men receiving \$1,860 and over to a greater extent than the salaries of women receiving such amounts. Of all

the women and all the men in like positions who received \$1,860 and over, 21 per cent of the women and 39 per cent of the men received increases of 5 per cent or more in their salary rates as a result of reclassification.

Among clerks receiving salaries of \$1,860 and over, 22 per cent of men as compared with 12 per cent of the women, and among stenographers and typists 22½ per cent of the men as compared with 14 per cent of the women, received increases of 5 per cent or more. In the legal service 47 per cent of the men received 5 per cent increases or more, while only 27 per cent of the women had such adjustment. In scientific research and investigation 52 per cent of the men, as compared with 36 per cent of the women, gained a 5 per cent or greater addition in salary.

## LABOR LAWS AND COURT DECISIONS

### Constitutionality of Statute Prohibiting Illegal Strikes

ANOTHER chapter has been written by a Supreme Court decision of October 25 in the protracted series of judicial determinations and interpretations springing out of the so-called industrial relations act of Kansas (Special session, 1920, ch. 29). Earlier cases were reviewed in an article appearing in the *Labor Review* for June, 1925 (pp. 130-136). While the statute was found to be unconstitutional in certain aspects as involving features of compulsory arbitration (*Wolff Packing Co. v. Court of Industrial Relations* (1923), 262 U. S. 522, 43 Sup. Ct. 630), the question remained undecided as to the validity of a provision of the law making it unlawful for persons to conspire "to induce others to quit their employment for the purpose and with the intent to hinder, delay, limit or suspend" the continuous and efficient operation of designated industries. Conviction had been had and affirmed in the State courts in proceedings against one August Dorchy, an official in a labor organization of miners, for inciting a strike in a coal mine, in violation of the statute. On appeal to the Supreme Court the judgment of conviction was reversed and the case remanded for a decision by the State courts on the point of constitutionality of the section forbidding the calling of strikes in certain circumstances, in view of the declared unconstitutionality of the so-called compulsory arbitration features of the law. (*Dorchy v. Kansas* (1924), 264 U. S. 286, 44 Sup. Ct. 323.)

On its consideration of the case the Supreme Court of Kansas decided that the sections forbidding incitement to strikes with the intent of hindering, etc., operations and making it a felony for an official of a labor union willfully to use his office to induce violations of the statute were valid, and reaffirmed the judgment of conviction. (*State v. Howat* (1924), 116 Kans. 412, 227 Pac. 752.) This construction of the State law was challenged on the ground that it was in effect the prohibition of strikes and therefore a denial of the liberty guaranteed by the fourteenth amendment; it was on this ground that the case was before the Supreme Court. Mr. Justice Brandeis, speaking for the court, announced the necessity of the court's acceptance of the construction given the statute, the only question being whether or not the statute as so construed and applied is constitutional, and affirmed the judgment. (*Dorchy v. Kansas*, 47 Sup. Ct. 86.)

The facts in the case were reviewed quite fully, showing that the strike was ordered to compel the payment of a claim of a workman to a disputed balance of wages. There was no evidence that the claim had ever been submitted to arbitration, nor of any requirement that it should be. The claim had been in dispute for nearly two years, and the employee was not, apparently, in the company's employ at the time of the strike order. It appeared further that not only was the calling of the strike unlawful but that there was at the time in

existence an injunction specifically forbidding the calling of such strike. In holding that the statute, as construed and applied, was not unconstitutional, Mr. Justice Brandeis concluded his opinion as follows:

The right to carry on business—be it called liberty or property—has value. To interfere with this right without just cause is unlawful. The fact that the injury was inflicted by a strike is sometimes a justification. But a strike may be illegal because of its purpose, however orderly the manner in which it is conducted.

To collect a stale claim due to a fellow member of the union who was formerly employed in the business is not a permissible purpose. In the absence of a valid agreement to the contrary, each party to a disputed claim may insist that it be determined only by a court.

To enforce payment by a strike is clearly coercion. The legislature may make such action punishable criminally, as extortion or otherwise.

And it may subject to punishment him who uses the power or influence incident to his office in a union to order the strike. Neither the common law nor the fourteenth amendment confers the absolute right to strike.

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### Liability for Action of State Police Acting as Strike Guard

THE Court of Civil Appeals of Texas has recently had before it a rather novel case involving the liability of an employer obtaining protection in time of strike from the agency commonly known as State police. The incident involved occurred in connection with the railway shopmen's strike of July, 1922, when many workmen at the repair shops of the company went on strike, some of them joining the picketing force. Claiming a fear of violence to the employees remaining at work and of interference with its railway operations, the company applied to the Governor of Texas for a body of rangers to act as a guard for its property and employees. On the ground that funds were lacking, the governor consented to send the rangers on condition that the company would pay their compensation. This was agreed to, and a number of rangers were assembled at the town of Tyler under the command of one Captain Brady. Subsequently one ranger, L. W. Pearce, shot and killed a picketer, Clayton Hudson, whose parents thereupon brought action against the company to recover damages for the death of their son. Judgment was in their favor in the district court of Smith County, but on appeal this was reversed by the court of civil appeals and judgment rendered for the company. (*St. Louis Southwestern Ry. Co. v. Hudson*, 286 S. W. 766.)

There was no question that the killing was wanton and without justification, and it was claimed that Pearce was only nominally a State ranger, being in fact an employee of the appellant, and that he was known to be "a violent and dangerous man, unfit for such duties," but was nevertheless continued by the company in its service.

The court of appeals found that under the law the governor was within his authority in assuming control of the situation at Tyler and using the ranger force to maintain order. It was in evidence that shortly before the coming of the rangers two employees of another railway company at the same place had been assaulted and one of them killed because they were working. A survey was made

shortly after the killing of Hudson which led the governor to issue a proclamation taking "exclusive police supervision of certain local territory in that place." No question, therefore, seemed to remain but that "the governor was within his legal authority and that the conditions existed which called for such official action."

If it should be assumed that Pearce, in killing Hudson, intended to act for the benefit of the company, or thought that he was acting in its interest, this could have no effect by way of extending the limits of the company's responsibility. Even if he was its employee, it could not be made responsible for conduct or actions which he was not employed to perform. It had been recognized that no legal methods existed for breaking up picketing, and, as this was understood, it could not be assumed that any effort in this direction was within the scope of service contemplated from the rangers. However, the court was of the opinion that there was no relation of employer and employee between the company and Pearce. He was duly commissioned as a ranger, subject to discharge only by his superiors, and under the orders of the captain of the force in command. The application for guards had been for protection at the State's expense, but in the absence of funds money for their payment had been supplied; but this fact of itself could not be regarded as changing the status of the guards as agents of the State, nor as making them private employees of the company. The conclusion was reached that the company was in no wise liable for the unlawful act of the ranger, and judgment was rendered in its favor.

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### Argentine Sunday Rest Law<sup>1</sup>

THE following regulations of the Argentine Sunday rest law (No. 4661)<sup>2</sup> became effective June 10, 1926, in accordance with a presidential decree of March 1, 1926.

Manual work in factories, shops, stores, and other establishments is prohibited on Sunday, except that permitted by said law. The rest period shall extend from midnight Saturday to midnight Sunday, and no deduction from the workers' wages shall be made for this rest period.

The sale of intoxicating beverages is prohibited on Sunday, with the exception of beer having an alcoholic content of not more than 6 per cent, and, in hotels and restaurants, wine consumed with meals.

Employees of undertakings allowed to operate on Sunday are to have one rest day for each six days of labor and must have permits for Sunday work from the Department of Labor.

The following are added to the industries and business places not allowed to operate on Sunday: Warehouses, cigar and tobacco stores or tobacco stands in other places of business, cheese stores, messenger service, barber shops, and street merchandise booths, except flower booths.

The Ministry of the Interior has the power to modify or suspend the regulations if they do not fulfill the purposes of this enactment.

<sup>1</sup> La Prensa, Buenos Aires, Argentina, June, 10, 1926, and Pan American Union Bulletin, Washington, October, 1926, pp. 1035, 1036.

<sup>2</sup> For a detailed account of this law see Labor Review for June, 1925, pp. 141, 142.

# INDUSTRIAL DISPUTES

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## Strikes and Lockouts in the United States, October, 1926

THE Bureau of Labor Statistics presents below a statement of strikes and lockouts in the United States beginning in the month of October, 1926, in so far as reports thereof have been received by the bureau. Disputes involving fewer than six workers and those lasting less than one day have been omitted where information on this point is reported.

In presenting these figures it is important to note that the Bureau of Labor Statistics has no machinery for prompt and full reporting of strikes and lockouts. The bureau depends largely upon newspapers, trade journals, and labor periodicals for the preliminary reports of disputes. These preliminary reports are then followed up by correspondence and necessary revision made. Such revision may change more or less considerably the number of strikes and lockouts as originally recorded, owing to the fact that minor disputes are often late in being reported, but experience has shown that almost always prompt reports are obtained regarding the more important disputes.

Also it must be emphasized that, for the reasons mentioned, the data here presented do not pretend to be absolutely complete or fully accurate. It is believed, however, that practically all of the more significant strikes and lockouts are recorded, and that the information presented is sufficiently accurate to give a fair picture of the situation in the United States in the matter of significant strikes and lockouts.

The Bureau of Labor Statistics solicits the cooperation of employers, labor organizations, and other interested parties in making this compilation of disputes as comprehensive and as accurate as possible.

### Strikes and Lockouts Beginning in October, 1926

TABLE 1 shows the number of strikes and lockouts beginning in October, 1926, in comparison with August and September, and also the number of persons involved, to the extent that reports on this point have been received. As already noted, delayed reports usually concern minor disputes.

TABLE 1.—STRIKES AND LOCKOUTS BEGINNING IN AUGUST, SEPTEMBER, AND OCTOBER, 1926<sup>1</sup>

Month	Total number of disputes <sup>2</sup>	Disputes in which number of employees directly involved is known <sup>2</sup>		
		Number of strikes and lockouts	Total number of employees involved	Average number of employees per dispute
August, 1926.....	104	68	15,917	234
September, 1926.....	96	72	26,667	370
October, 1926.....	62	42	15,038	358

<sup>1</sup> Data given are subject to revision.

<sup>2</sup> Excluding those involving fewer than six persons.

Classification of Strikes and Lockouts by Industries and by Number of Persons Involved

TABLE 2 shows the distribution of the reported strikes and lockouts for October, 1926, by industries.

TABLE 2.—STRIKES AND LOCKOUTS BEGINNING IN OCTOBER, 1926, CLASSIFIED BY INDUSTRIES

Industry	Number of strikes and lockouts	Industry	Number of strikes and lockouts
Building trades.....	12	Barbers.....	1
Clothing industry.....	13	Chaffeurs and teamsters.....	1
Furniture industry.....	7	Paper.....	2
Metal trades.....	6	Window washers.....	2
Mining, coal.....	4	Miscellaneous.....	8
Textile industry.....	4		
Jewelry workers.....	1	Total.....	62
Longshoremen.....	1		

The statement below shows in so far as information is available the disputes beginning in October, 1926, classified by number of workers directly involved:

	Number of disputes
6 and under 20 workers.....	10
20 and under 100 workers.....	13
100 and under 500 workers.....	12
500 and under 1,000 workers.....	2
1,000 and under 5,000 workers.....	5
Total.....	42

Principal Strikes and Lockouts Beginning in October, 1926

A BRIEF description is given below of the more important strikes and lockouts beginning in October for which detailed information has become available.

*Paper-box makers, New York.*—Paper-box makers in New York City struck on October 5 for a 44-hour week, increase in wages,

etc. The number of strikers is variously reported as from 2,000 to 4,000. This strike is still pending, although some shops, according to press reports, have settled on the terms demanded by the workers.

*Ladies' tailors and dressmakers, New York.*—The tailoring shops along Fifth Avenue and vicinity, New York City, were affected from October 5 to 12 by a strike of about 1,500 workers who wanted an increase in wages, a 40-hour week, and a time guaranty of employment. The settlement, as reported through the press, included a 2-year agreement, a 40-hour week for 8 months out of the 12, and a wage increase of \$3 per week.

*Textile workers, Massachusetts.*—On October 13 the employees of the Dartmouth Manufacturing Co., New Bedford, Mass., went out on strike because of unsatisfactory working conditions. The number of strikers is variously reported as from 1,200 to 1,600. According to press reports this strike ended on November 23, following an adjustment of grievances, the company having conceded several, if not most, of the points at issue. The employees expect to resume work on November 29.

*Coal miners, Ohio.*—On October 12, 1,200 miners employed by the Ohio Collieries Co., in the Hocking Valley, of Ohio, struck over a wage dispute and returned to work on October 16, under conditions prevailing prior to the strike.

*Coal miners, Indiana.*—A strike of 1,300 coal miners against the Fort Harrison Coal Co., of Terre Haute, Ind., on account of working conditions, is recorded, but the exact date of the strike and further details are lacking.

#### Principal Strikes and Lockouts Continuing into October, 1926

A BRIEF description follows of the present status of the more important strikes and lockouts originating prior to October for which detailed information has become available.

*Textile workers, Passaic, N. J.*—The strike of woolen and worsted textile workers of Passaic, N. J., and vicinity which began on January 25, 1926, is still pending, but the press reports a settlement of the strike in one of the mills, viz, the Passaic Worsted Spinning Co., on November 11. Under the terms of the agreement as reported in the press, full recognition is granted the union; the workers are assured the right of collective bargaining; no discrimination and preference will be shown in the employing of help; a closed shop will not be demanded; and in the event of future trouble the workers will remain at work pending arbitration by representatives of the mill and the union, supplemented by a third party acceptable to both.

*Cloak and suit workers, New York.*—The strike of 40,000 clothing workers in New York City which began on July 1, 1926, has been partly settled, according to press reports, through the consummation of an agreement dated November 13, 1926, affecting directly one branch of the industry involving about 7,000 workers employed by what is called the "inside" manufacturers. In addition, it is said, the agreement applies to about 15,000 employees who had previously

settled with the so-called independent manufacturers. The new agreement, as reported, runs to June 1, 1929, and calls for a 42-hour week until the first Monday of June, 1928, and a 40-hour week thereafter. Wage increases are also stipulated.

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## Conciliation Work of the Department of Labor in October, 1926

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 42 labor disputes during October, 1926. These disputes affected a known total of 16,328 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workmen directly and indirectly affected.

On November 1, 1926, there were 53 strikes before the department for settlement and, in addition, 11 controversies which had not reached the strike stage. Total number of cases pending, 64.

## LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS CONCILIATION SERVICE, OCTOBER, 1926

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Company or industry and location	Nature of controversy	Craft concerned	Cause of dispute	Present status and terms of settlement	Duration		Men involved	
					Begin-ning	Ending	Direct-ly	In-direct-ly
Plumbers, Scranton, Pa.....	Threatened strike.	Building.....	Asked \$10 per day.....	Adjusted. Returned; allowed \$10 per day on Nov. 1, 1926.	1926 Oct. 1	1926 Oct. 5	220	-----
Rindsberger Mfg. Co., Chicago, Ill.	Strike.....	Metal polishing..	Wages and working conditions.	Pending. Few have returned; firm employing new men.	Sept. 21	-----	416	200
College Hill Mining Co., Jackson-ville, Ohio.	.....do.....	Mining.....	Working conditions.....	Adjusted. Returned; terms to be fixed later.	Oct. 1	Oct. 4	100	-----
Hudson Coal Co., Miners Mills, Pa.	.....do.....	.....do.....	Unsatisfactory work by one miner.	Adjusted. Returned without change..	Sept. 30	Oct. 2	794	6
Belleville Enamelling Cos., Belle-ville, Ill.	.....do.....	Foundry work.....	Wage adjustment and re-cognition.	Pending. Can not be settled at this time.	Aug. 28	-----	100	-----
Roesch Enamel Range Co., Belle-ville, Ill.	.....do.....	Enamel work.....	.....do.....	.....do.....	.....do.....	-----	90	70
Lorraine Co., Reading, Pa.....	.....do.....	Garment trade.....	Open-shop dispute.....	Pending.....	(1)	-----	(1)	-----
Barbers, New York City.....	.....do.....	Barber trade.....	Wages, conditions, and union recognition.	Adjusted. Returned without change..	Sept. 28	Oct. 11	250	150
Philadelphia Carpet Co., Phila-delphia, Pa.	.....do.....	Velvet-carpet making.	Wages cut of 15 per cent; asked union recognition.	Unable to adjust. Court action pend-ing.	Sept. 22	-----	150	30
Theaters, southwestern New York..	Threatened strike.	Theater work.....	Employe discharge; all workers struck in sym-pathy.	Pending.....	Sept. 4	-----	30	10
Dollar Dry Cleaners, Scranton, Pa..	Strike.....	Cleaning business, drivers.	Asked wage increase.....	Adjusted. New crew of drivers em-ployed.	Oct. 2	Oct. 4	7	-----
Bloomsburg Silk Co., Duryea, Pa..	.....do.....	Textile industry, winders.	Demanded understanding as to method of wage pay-ing.	Adjusted. Conditions improved; some increases allowed.	Oct. 4	Oct. 21	100	3
John Soller, contractor, Davenport, Iowa.	.....do.....	Lath and plaster work.	Jurisdiction of corner beads..	Adjusted. Plasterers awarded bead work.	Oct. 1	Oct. 5	15	200
Window cleaners, New York City..	.....do.....	Window cleaning.	Asked 44-hour week and \$44 minimum wage.	Pending. No prospect of settlement at present.	(1)	-----	700	-----
Cigar makers, Denver, Colo.....	.....do.....	Cigar making.....	Asked wage increase and improved working condi-tions.	Pending.....	Aug. 11	-----	149	-----
Couturieres, New York City.....	.....do.....	Tailoring.....	Asked 40-hour week, orga-nization of woman dress-makers, and wage increase.	Adjusted. 40-hour week except October, November, March, and April and \$3 per week increase.	(1)	Oct. 11	(1)	-----
Paper-box manufacturers, New York City.	.....do.....	Paper-box indus-try.	Asked 44-hour week, mini-mum scale, and improved conditions.	Pending.....	(1)	-----	2,000	-----
Longshoremen, Staten Island, N. Y.	.....do.....	Scale men.....	Asked wage increase.....	Adjusted. Weighers, \$45 per week; others, \$1 per hour, 44-hour week.	Oct. 1	Oct. 5	300	400

Bond Shoe Mfg. Co., Lynn, Mass.	do	Shoe industry	Alleged violation of contract as to overtime, etc.	Pending	(1)		280	
Maras & Co., Chicago, Ill.	do	Fig and date filling.	Wage cut and working conditions.	Pending. No opportunity for settlement at this time.	Oct. 2		100	
Clothing workers, Pittsburgh, Pa.	do	Clothing industry.	(1)	Pending	(1)		(1)	
Bay State Shop, Boston, Mass.	do	Upholstering	Asked union contract	do	(1)		(1)	
Window washers, Chicago, Ill.	do	Window washing	Asked \$1.25 per hour and 40-hour week.	Adjusted. \$1 per hour; \$40 per week guaranteed.	Oct. 4	Oct. 13	380	
Barbers, Chicago, Ill.	Threatened strike.	Barber trade	Wages, hours, and working conditions.	Pending	Sept. 13		1,500	
Dartmouth Mills, New Bedford, Mass.	Strike	Textile industry	Wages and working conditions.	do	(1)		595	1,000
Ohio Coal Co., Hocking Valley district.	do	Mining	Company refused pay for time used in moving tools.	Adjusted. Men placed at other mines of company.	Oct. 12	Oct. 16	1,500	165
Greenstein Co., New York City	do	Upholstering	Asked 40-hour week and 10 per cent increase.	Adjusted. Company discontinued business.	Sept. 1	Sept. 20	43	
York Card & Paper Co., York, Pa.	do	Paper and card work.	Hours increased; asked wage increase.	Pending	Oct. 15		34	
National Spun Silk Mill, New Bedford, Mass.	do	Textile industry	Wages and working conditions; discharge of employees.	Adjusted. Returned without change.	Sept. 29	Oct. 26	75	1,125
Darling & Co., Chicago, Ill.	Controversy	Driving	Discharge of chauffeur	Adjusted. Arbitrator appointed and award made.	June 5	Nov. 3	1	
Barbers and hairdressers, Chicago, Ill.	do	Hairdressing and barber trade.	Wage scale and working conditions.	Adjusted. Agreed on conditions; wage scale to be decided by arbitration.	Sept. 13	Oct. 23	1,500	
Chicago Cap Co., Los Angeles, Calif.	Strike	Cap manufacture	Wages and working conditions.	Pending. Mediation not desired at this time.	Oct. 1		28	15
Fink Bros. Upholstering Co., Providence, R. I.	do	Upholstering	Asked increase, 44-hour week, and union recognition.	Pending. Injunction proceeding pending.	(1)		30	
Golden State Milk Products Co., San Francisco, Calif.	Controversy	Creamery work	Asked union recognition	Pending	(1)		12	
Enterprise Leather Bag Co., Chicago, Ill.	Strike	Leather-bag work	do	Unclassified. Returned without change before arrival of commissioner.	Oct. 20	Oct. 23	15	
Tischer Hardware Co., Dayton, Ohio.	do	Electrical work	Refusal to connect nonunion-made electrical sign.	Pending	(1)		None	
B. J. Smith Co., Scranton, Pa.	do	Upholstering	Asked wage increase, shorter hours, and recognition.	Adjusted. 10 per cent increase to some workers; 44-hour week instead of 48-hour week.	Oct. 23	Nov. 5	25	
Fort Harrison Coal Co., Terre Haute, Ind.	do	Mining	Company refused to haul miners in and out mines.	Unclassified. Commission appointed to fix terms.	Oct. 26	Nov. 1	1,300	
Enke Dyeing & Cleaning Co., Portland, Oreg.	do	Dyeing and cleaning.	(1)	Pending	(1)		(1)	
Superior Felt & Bedding Co., Chicago, Ill.	do	Manufacture of bedding.	Alleged discrimination	do	(1)		90	
Plano Foundry, Plano, Ill.	do	Molding metal	(1)	Adjusted. Terms not reported	(1)		(1)	
Upholseters, Jermyn, Pa.	do	Upholstering	Wages, hours, and conditions.	Adjusted. 44-hour week for some; 10 per cent increase to other employees.	(1)	Nov. 5	25	
Total							12,954	3,374

1 Not reported.

[1293]

# WAGES AND HOURS OF LABOR

## Wages and Hours in the English Pottery Industry

STOKE-ON-TRENT, about 45 miles southeast of Liverpool, is the pottery city of England. It consists of several towns that have recently been brought together and incorporated as the city of Stoke. All kinds of pottery ware are produced there—general ware, sanitary ware, and electrical ware, with the general ware ranging all the way from common earthenware to fine bone china.

A representative of the Bureau of Labor Statistics was in Stoke for a short time in the spring of 1926 and obtained considerable data concerning wages, hours, and working conditions in the general earthenware part of the industry. Time was not taken to consider chinaware. Arrangements were readily made with the pottery manufacturers' association and the union, and both extended every courtesy to the bureau's representative.

The principle of the 47-hour working week applies in the industry. Where recognized working hours in any pottery are less than 47 the shorter hours remain.

The prevailing hours of labor are from 7.30 to 9 a. m.; from 9.30 a. m. to 1 p. m.; and from 2 to 5.30 p. m. The mid-forenoon stop is for lunch. Saturday work stops at 12.30 p. m., making the regular working time in the majority of plants 47 hours for a full week.

Some few plants as a whole cut out the half hour for lunch and start at 8 o'clock. Many decorating shops and warehouses start at 8 a. m. and have no lunch period, even though other shops in the same plant start at 7.30 a. m. It is stated that some of the shops starting at 8 still stop a few minutes for a forenoon lunch. In many instances the noon hour extends from 12.30 to 1.30 p. m. instead of from 1 to 2 p. m.

Trade was found to be slack at the time, as it has been much of the time for five years. The potteries were working about four days a week and there was considerable unemployment.

The manufacturers furnished a compilation showing the average earnings per hour in the principal occupations of adult workers, most of them skilled pieceworkers. The study covered a two-week period in December and included 3,056 male and 3,054 female wage earners.

The number of firms reported, the number of operatives for whom figures were compiled, and average earnings per hour are shown in the following table. The rates for time-workers, largely boys and girls, are shown elsewhere.

AVERAGE EARNINGS PER HOUR IN THE GENERAL EARTHENWARE INDUSTRY IN STOKE, ENGLAND, DECEMBER, 1925, BY OCCUPATIONS

Occupation	Males			Females		
	Number of firms reporting	Number of operatives	Average earnings per hour	Number of firms reporting	Number of operatives	Average earnings per hour
			<i>s. d. Cents</i>			<i>s. d. Cents</i>
Slip makers	44	72	1 5 <sup>3</sup> / <sub>4</sub> (36.0)			
Pressmen	34	97	1 5 (34.5)			
Mold makers	50	143	1 8 (40.6)	1	3	7 <sup>1</sup> / <sub>4</sub> (14.7)
Throwers	10	12	2 2 (62.7)			
Turners	26	75	1 4 <sup>1</sup> / <sub>2</sub> (33.5)	1	2	10 (20.3)
Handlers	28	60	1 3 <sup>3</sup> / <sub>4</sub> (31.9)	37	199	8 (16.2)
Plate makers	48	244	1 6 <sup>1</sup> / <sub>4</sub> (37.0)	16	51	1 1 (26.4)
Dish makers	36	71	1 0 <sup>3</sup> / <sub>4</sub> (38.0)	2	3	9 <sup>1</sup> / <sub>2</sub> (19.3)
Saucer makers	17	25	1 4 <sup>1</sup> / <sub>2</sub> (33.5)	30	95	11 (22.3)
Hand basin and chamber makers	18	26	1 11 <sup>1</sup> / <sub>2</sub> (47.6)			
Cup and bowl makers	12	16	1 6 (36.5)	36	143	10 <sup>3</sup> / <sub>4</sub> (21.8)
Jiggers and jolliers	44	110	1 9 <sup>1</sup> / <sub>2</sub> (43.6)	11	26	1 0 (24.3)
Casters	45	137	1 4 <sup>1</sup> / <sub>4</sub> (33.0)	47	305	8 <sup>3</sup> / <sub>4</sub> (17.7)
Hollow-ware pressers	28	136	1 4 (32.4)			
Sagger makers	48	127	1 6 (36.5)			
Biscuit placers	51	338	1 6 <sup>1</sup> / <sub>4</sub> (37.0)			
Biscuit warehousemen	12	17	1 4 <sup>1</sup> / <sub>2</sub> (33.5)			
Engravers	16	25	1 9 <sup>1</sup> / <sub>4</sub> (43.1)			
Printers	47	267	1 4 <sup>1</sup> / <sub>4</sub> (33.0)	2	2	11 (22.3)
Transferers				41	464	8 (16.2)
Dippers	52	116	1 9 <sup>1</sup> / <sub>2</sub> (43.6)	10	28	10 (20.3)
Glost placers	53	535	1 7 (38.5)	1	4	8 (16.2)
Majolica painters				2	3	11 (22.3)
Ground layers	4	5	2 0 <sup>1</sup> / <sub>4</sub> (49.2)	4	19	1 4 <sup>1</sup> / <sub>4</sub> (33.0)
Aerographers	5	9	1 7 <sup>1</sup> / <sub>4</sub> (39.0)	35	151	1 2 <sup>3</sup> / <sub>4</sub> (29.9)
Gilders	3	10	1 2 (28.4)	45	621	8 <sup>1</sup> / <sub>2</sub> (17.2)
Painters	8	17	1 6 <sup>1</sup> / <sub>2</sub> (37.5)			
Enamellers				31	338	8 (16.2)
Lithographers				42	593	7 <sup>1</sup> / <sub>2</sub> (15.2)
Enamel kiln placers	23	61	1 4 <sup>1</sup> / <sub>2</sub> (33.5)			
Glost warehousemen	26	77	1 3 (30.4)			
Polishers and grinders	29	96	1 5 <sup>1</sup> / <sub>2</sub> (35.5)	2	4	10 <sup>1</sup> / <sub>2</sub> (21.3)
Packers	44	132	1 4 (32.4)			
Total		3,056	1 5.97 (36.4)		3,054	8.805 (17.9)

The pressmen in the above table are employed in the slip house; the handlers in putting handles on cups. The plate makers, saucer makers, hand basin and chamber makers, and cup and bowl makers are all jigger men. The dish makers include jigger men and some hand workers as well.

The group of jigger men and jolliers are men making different articles to such an extent that they can not be placed under a more specific occupation title. The gilders do gold decorating with a brush and most of them are liners. The painters do color decorating with a brush. The aerographers operate pneumatic color sprayers. The lithographers are transferers.

Agreements

AGREEMENTS or awards occur at intervals, but usually they apply to particular occupations or branches of the industry only. There seems to be no such thing as a complete cancellation of an old agreement covering the whole industry and the establishment of an entirely new agreement.

Further, there is no long list of articles with their base piece wage rates, with a percentage scale of plusages applying uniformly as found in the agreement in the United States. There are minimum time rates for certain occupations and there are established minimum basic piece rates for certain standard kinds of ware. Aside from these rates every pottery has its own rates.

Early in 1926 the National Society of Pottery Workers (union) issued a handbook containing the agreements in force. Without extended notes of explanation, however, much of the matter in this handbook would not be clear to the average American reader nor to the average American pottery worker. Hence, this agreement is not reproduced in full. The most important minimum piece and time rates of the different agreements are here set forth. The minimum piece rate is the prevailing rate.

*Plate makers.*—The minimum piece rates for making the best grades of earthenware plates are here given. The operators are jigger men—in England called “flat pressers.” The basic rate stated covers the making and the towing (finishing), and is stated per score dozen; that is, per 240 plates.

Trade size	Actual measurement in biscuit	Basic rate per score dozen (20×12)	Full rate per score dozen (20×12)	Full rate per dozen (12)
	<i>Inches</i>	<i>s. d. d. Cents</i>		<i>Cents</i>
5-inch.....	6 $\frac{7}{8}$	1 7 +2 (42.6)	\$0.720	3.60
5 $\frac{1}{2}$ -inch.....	7 $\frac{7}{8}$	1 8 $\frac{1}{2}$ +3 (47.6)	.805	4.03
6-inch.....	7 $\frac{7}{8}$	1 10 +3 (50.7)	.857	4.28
6 $\frac{1}{2}$ -inch.....	8 $\frac{7}{8}$	2 0 +3 (54.8)	.926	4.63
7-inch.....	8 $\frac{7}{8}$	2 2 +3 (58.8)	.994	4.98
7 $\frac{1}{2}$ -inch.....	9 $\frac{7}{8}$	2 4 $\frac{1}{2}$ +3 (63.9)	1.080	5.40
8-inch.....	9 $\frac{7}{8}$	2 6 +4 (69.0)	1.166	5.80
10-inch.....	10 $\frac{1}{4}$ -10 $\frac{1}{2}$	3 0 +4 (81.1)	1.372	6.86

The pence added are an established allowance for increase in wages of attendants. (See Attendants.) To obtain the full rate paid, the basic rate is increased by compounded percentages, the computation being as follows: Rate  $\times 1.10 \times 1.50 \times 1.02\frac{1}{2}$ . Rolled-edge plates have the same rates as plain plates. For scalloped-edge plates on most sizes 1d. (2.1 cents) more than the basic rate is paid and for double thick plates one and one-fourth times the basic rate is paid.

The basic rate for common flat ware, made to a less extent, is lower—under 7-inch trade size, 2d. (4.06 cents) less than the basic rate for best ware; 7-inch and under 8-inch, 3d. (6.08 cents) less; 8-inch and over, 3 $\frac{1}{2}$ d. (7.09 cents) less.

*Saucer makers.*—The following is the minimum rate on saucers for making and towing, or for making, fettling, and sponging:

Style	Rate per score "dozen" (20×36)				Full rate per dozen (12)	
	Men		Women		Men	Women
	Basic rate	Full rate	Basic rate	Full rate		
	<i>s. d. d.</i>		<i>s. d. d.</i>		<i>Cents</i>	<i>Cents</i>
London.....	4 2+6 (\$1.136)	\$1.789	3 8+6 (\$1.014)	\$1.559	2.98	2.60
Baltimore.....	4 2+6 (\$1.136)	1.789	3 8+6 (\$1.014)	1.559	2.98	2.60
Coffee.....	4 0+6 (\$1.095)	1.724	3 6+6 (\$0.973)	1.497	2.88	2.49
Irish.....	4 3+6 (\$1.156)	1.820	3 9+6 (\$1.034)	1.590	3.03	2.65
Pads.....	3 5+6 (\$0.953)	1.500	3 0+6 (\$0.852)	1.310	2.50	2.18
Fruits.....	4 2+6 (\$1.136)	1.789	3 8+6 (\$1.014)	1.559	2.98	2.60
Oatmeals.....	4 11+6 (\$1.318)	2.076	4 3+6 (\$1.156)	1.777	3.46	2.81

The rate is per score "dozen" of 36; that is, 36, not 12, make a dozen. Women are paid lower rates than men, and a much greater proportion of women are employed. The 6d. (12.17 cents) is added to help pay for attendants. To get the full rate certain percentages are added, the computation being as follows: For men, Rate × 1.50 × 1.05; for women, Rate × 1.50 × 1.02½.

*Cup makers.*—The following are the minimum prices for making and sponging cups made on a single jolly:

Style	Men		Women		Full rates per dozen (12)	
	Basic rate per score "dozen" (20×36)	Full rate per score "dozen" (20×36)	Basic rate per score "dozen" (20×36)	Full rate per score "dozen" (20×36)	Men	Women
	<i>s. d. d.</i>		<i>s. d. d.</i>		<i>Cents</i>	<i>Cents</i>
Coffee.....	3 10+3 (\$0.994)	\$1.565	3 4+3 (\$0.872)	\$1.341	2.61	2.24
Bullion.....	4 1+3 (\$1.054)	1.660	3 7+3 (\$0.933)	1.434	2.77	2.39
London.....	4 1+3 (\$1.054)	1.660	3 7+3 (\$0.933)	1.434	2.77	2.39
Irish.....	4 1+3 (\$1.054)	1.660	3 7+3 (\$0.933)	1.434	2.77	2.39
Breakfast.....	4 4+3 (\$1.115)	1.756	3 10+3 (\$0.994)	1.528	2.93	2.55

The rate is given per score "dozen" of 36; in other words, 36, not 12, is a dozen. Woman jolly operators are paid a lower rate than the few men employed in this occupation. The basic rate is increased by 3d. (6.08 cents), which is added to help pay for attendants. The full rate for the men is Rate × 1.50 × 1.05; for the women, Rate × 1.50 × 1.02½. On the double jolly the basic rate is generally 7d. (14.19 cents) lower for men and 4d. (8.11 cents) lower for women per score "dozen."

*Dish making.*—A 10-inch trade size dish is taken as a sample to illustrate the wage rate for dish making. The minimum basic rate for this size paid to a man for making and sponging by hand per dozen of 12 is 5½d. (11.2 cents) × 1.50 × 1.02½ × 1.07½ or 9d. (18.3 cents). The 7½ per cent is added as being a fair average of the extra allow-

ance for attendant. For a machine-made 10-inch dish the initial rate is  $4\frac{1}{2}$ d. (9.1 cents) per 12 dishes, with the same additions, making the full rate per dozen  $7\frac{1}{2}$ d. (15.1 cents).

*Attendants (mold runners, batters-out, and finishers or towers).*—Attendants are generally paid by the operators whom they attend, being paid at time rates according to age. The rates given below for attendants apply to mold runners up to and including age 18:

Age	Basic time rate per week (47 hours)	Full rate per week (47 hours)	Age	Basic time rate per week (47 hours)	Full rate per week (47 hours)
	<i>s. d.</i>			<i>s. d.</i>	
14 years.....	8 0 (\$1.947)	\$2.993	18 years.....	12 8 (\$3.082)	\$4.623
15 years.....	9 0 (\$2.190)	3.267	19 years.....	14 0 (\$3.407)	5.110
16 years.....	9 8 (\$2.352)	3.616	20 years.....	15 4 (\$3.731)	5.597
17 years.....	10 6 (\$2.555)	3.928	21 years.....	16 8 (\$4.055)	6.683

The basic rates are increased by 50 per cent and again by  $2\frac{1}{2}$  per cent to obtain the full rate, except that only juniors below 18 get the additional  $2\frac{1}{2}$  per cent.

*Kiln placing and drawing.*—The minimum wage for both biscuit and glost ware placers and drawers is 7s. (\$1.703) per kiln day, plus 50 per cent and  $2\frac{1}{2}$  per cent, making the rate 10s. 9d. (\$2.616) per kiln day. The same crew place and draw.

There is a provision that if female placers are employed they shall have a basic minimum of 16s. 8d. (\$4.055) per week for the first six months and 18s. (\$4.380) thereafter, which, with plusages of 50 per cent and  $2\frac{1}{2}$  per cent, make the rates \$6.235 and \$6.734.

*Dipping house women* have the following time rates: First year, 12s. (\$2.920) per week, plus 50 per cent plus  $2\frac{1}{2}$  per cent = \$4.489; second year, 15s. (\$3.650) per week, plus 50 per cent plus  $2\frac{1}{2}$  per cent = \$5.612; third year, 18s. (\$4.380) per week, plus 50 per cent plus  $2\frac{1}{2}$  per cent = \$6.734. This occupation does not include dippers.

*Warehouse workers, male.*—The minimum time rate per week of 47 hours for male warehouse workers is governed by age as follows:

Age	Basic rate per week	Full rate per week	Age	Basic rate per week	Full rate per week
	<i>s. d.</i>			<i>s. d.</i>	
14 years.....	7 6 (\$1.825)	\$2.806	18 years.....	14 0 (\$3.407)	\$5.238
15 years.....	8 6 (\$2.068)	3.180	19 years.....	17 6 (\$4.258)	6.547
16 years.....	9 6 (\$2.312)	3.554	20 years.....	22 6 (\$5.475)	8.418
17 years.....	11 0 (\$2.677)	4.115	21 years and over.....	30 0 (\$7.300)	11.223

To obtain the full rate the basic rate is compounded as follows: Rate  $\times 1.50 \times 1.02\frac{1}{2}$ . A warehouseman having control of books and orders has a basic minimum rate of 37s. 6d. (\$9.125) per week, which with the above plusages makes a full rate of \$14.03.

*Warehouse workers, female.*—The minimum time rates per week of 47 hours for female warehouse workers are:

Age	Basic rate per week	Full rate	Age	Basic rate per week	Full rate
	<i>s. d.</i>			<i>s. d.</i>	
14 years.....	7 0 (\$1.703)	\$2.619	18 years.....	12 8 (\$3.082)	\$4.823
15 years.....	8 0 (\$1.947)	2.993	19 years.....	14 0 (\$3.407)	5.110
16 years.....	9 0 (\$2.190)	3.366	20 years.....	15 4 (\$3.731)	5.597
17 years.....	10 3 (\$2.494)	3.835	21 years or over.....	16 8 (\$4.055)	6.083

The full rate up to age 17 is: Rate  $\times 1.50 \times 1.02\frac{1}{2}$ . For females 18 years and over the  $2\frac{1}{2}$  per cent is not added.

*Enamellers and gilders, female.*—In these occupations the minimum time rate is 5d. (10.1 cents) per hour, increased by 50 per cent and again by  $2\frac{1}{2}$  per cent, in all equal to 15.6 cents per hour. Enamellers are hand painters and embossers, and gilders do lining with a brush.

*Transferrers, female.*—The minimum time rate for female litho-transferrers is  $4\frac{1}{2}$ d. (9.1 cents) per hour, increased by 50 per cent and  $2\frac{1}{2}$  per cent, making 14 cents per hour.

*Decorators, male.*—Decorators have a minimum time rate of  $10\frac{1}{2}$ d. (21.3 cents) per hour, increased by 50 per cent and  $2\frac{1}{2}$  per cent, making a total of 32.7 cents. Pieceworkers in these occupations generally earn from 10 to 25 per cent more.

*Enginemen* have a minimum wage of 54s. (\$13.140) per week of 48 hours, and *stokers* (firemen) 49s. (\$11.923) per week of 48 hours. *Laborers* have a minimum of 45s. (\$10.950) per week of 47 hours.

*Sagger makers* when working on time rates are paid 7s. (\$1.703) per day, plus 50 per cent plus  $2\frac{1}{2}$  per cent, or 10s. 9d. (\$2.616) per day.

*Good from hand.*—Payment in the clay shop is made for ware “good from hand,” which is a change from the older system “good from oven.” This means that until recent years the operative making ware had to stand the wage loss of his ware that was broken during the process of firing in the bisque kiln. Now ware is paid for when accepted by the foreman of the green room and the employer stands the loss that may occur in the kiln.

*Stoppages.*—No stoppages (deductions) are now made for lighting, sweeping, kale, printer’s mixing, or hot water. Such stoppages were in practice until recent years.

*Terminating employment.*—In terminating employment notices required are 28 days for men and male apprentices and 14 days for women and boys (other than male apprentices) and other young persons.

*Payment for waiting time.*—Provisions as to payment for waiting time are as follows, the omissions, indicated by asterisks, not applying to general earthenware:

1. \* \* \* An operative who, in the absence of express notice given by or on behalf of the employer that his or her services will not be required, attends at the works at the normal commencing hours shall receive payment for at least two hours, irrespective of whether work is or is not provided for such operative to perform, unless the employer can prove that the operative was present at the works for a purpose not connected with his or her work.

For the purpose of this clause the expression "the normal commencing hours" shall mean the commencing hour in the morning, breakfast, or afternoon in operation at the works.

2. \* \* \* An operative who, after commencing his or her employment, is subjected during the course of his or her employment to one or more waiting periods during which he or she is not provided with work shall be paid for all time covered by such period or periods in excess of a total period of 30 minutes on any one day; provided that such operative shall not be entitled to claim payment for time lost during such waiting period or periods or any part thereof if the employer can prove that the operative was present at the works during the time so lost for a purpose not connected with his or her work.

\* \* \* \* \*  
4. In the event of machinery breaking down in the works after the operatives have entered, or the illness or absence from any cause of any operative which interferes with the organization of the works, the operatives shall not be entitled to claim payment under clauses 1 and 2 of this regulation for any time during which they are kept waiting for work, provided that they are allowed at once to leave the works and are informed that they are at liberty to do so. Employers and their representatives shall take all precautions to avoid the necessity of sending operatives away from the works on account of any such breakdown of machinery or disorganization of the works.

5. Notwithstanding anything contained in the previous clauses of this regulation, an operative who has commenced work, but who is not required to remain at the works until the end of the normal working day, and is so informed, shall not be entitled to claim payment for time lost subsequent to being so informed by reason of not being required to remain at the works until the end of the normal working day; provided that if the time during which such operative has been employed is less than two hours such operative shall be paid for not less than two hours.

6. Payments to an operative under clauses 1, 2, and 4 of this regulation shall be made at the minimum or agreed time rate applicable where such exists, or in the case of pieceworkers at the operative's average hourly rate of earnings during the last previous pay period during which the operative was employed.

7. In order to assist in the carrying out of this regulation, all pieceworkers shall clock on and off when facilities for doing so are provided.

8. In this regulation the expression "the works" means the factory, workshop, or other works at which the operative is required under his or her contract of service to attend for work.

### Productivity of Labor

FOUR firms and a union official furnished statements as to the average production per hour of clay-house crews for typical selected articles and such statements are presented in the table below, the sex of the operatives usually filling the positions in the crew being indicated by M. or F. It will be observed that the production per crew varies as between plants, as would be expected. The variation may be due to differences in speed or in the amount of care and labor demanded.

Referring to the first line in the first section of the table, it is seen that in Firm No. 1 a crew consists of a male plate maker, a female mold runner, and a female finisher. The plate maker, as stated elsewhere, is a jigger man. He operates his own spreader and hence there is no batter-out. The output for this crew of three is 150 plates per hour. The union official, speaking from his knowledge of the entire district, estimates that a crew of three will produce as much as 192 plates per hour.

In a few instances the team does not work as an exact unit, but the finisher may do work for more than one team, or not do as much work as the rest of the team. Firm No. 2, for instance, re-

ported that the plate maker and the mold runner produce 130 plates per hour, but that the finisher has time to do some of the work for another crew and finishes 150 plates per hour.

AVERAGE PRODUCTION PER HOUR OF CLAY-HOUSE CREWS FOR SPECIFIED ARTICLES

Firm or union	Plates—7-inch trade size (8 $\frac{3}{4}$ inch), plain edge				Saucers, plain <sup>1</sup>				Teacups, ordinary ovide—7-ounce			
	Plate maker	Mold runner	Fin-isher	Out-put (plates) per hour	Sau-cer maker	Mold run-ner	Fin-isher	Out-put (sau-cers) per hour	Jolly oper-ator	Bat-ter-out	Mold run-ner	Out-put (cups) per hour
Firm No. 1.....	M.	F.	F.	150	M.	F.	F.	228	F.	F.	F.	247
Firm No. 2.....	M.	M. or F.	F.	<sup>2</sup> 130	F.	F.	F.	<sup>3</sup> 190	F.	F.	F.	288
Firm No. 3.....	M.	F.	F.	120	F.	F.	F.	168	F.	F.	F.	216
Firm No. 4.....	M.	M.	F.	120	F.	M.	F.	150	F.	M.	M.	150
Union estimate.....	M.	M.	F.	192	F.	F.	F.	230	F.	F.	F.	230

Firm or union	Cup handling—open handles <sup>4</sup>		Cup sponging		Casting jugs—24's			Dish making—10-inch flat platter (12-inch) handwork		
	Hand-ler	Output (cups) per hour	Sponger	Output (cups) per hour	Caster	Helper	Output (jugs) per hour	Dish maker	Helper	Out-put (plat-ers) per hour
Firm No. 1.....	F.	90	F.	224	M.	-----	<sup>5</sup> 21	M.	F.	30
Firm No. 2.....	F.	109	F.	160	-----	-----	-----	M.	M. and F.	35
Firm No. 3.....	F.	84	F.	216	F.	-----	<sup>5</sup> 16	M.	F.	48
Firm No. 4.....	M.	120	F.	200	F.	F.	<sup>6</sup> 30	M.	M.	24
Union estimate.....	-----	-----	-----	-----	F.	F.	<sup>6</sup> 15-20	-----	-----	-----

<sup>1</sup> In Firm No. 2 the team has also a female spreader operator not included in the table.  
<sup>2</sup> Finisher, 150.  
<sup>3</sup> Finisher, 162.  
<sup>4</sup> In cup-handle pressing one firm reports one female pressing 120 handles per hour and another firm reports one female pressing 144 handles per hour.  
<sup>5</sup> Casting only.  
<sup>6</sup> Casting and finishing.

*Losses at kilns.*—Inquiry was made as to the percentage of loss in the bisque kiln. No exact figures were obtained, but estimates ranged from 5 to 10 per cent. Losses of broken and lump at the glost kiln were given as from 3 to 11 per cent, and ware classed as thirds as from 7 to 23 per cent.

Processes, Occupations, and Methods of Payment

THE following comments on pottery operations in England indicate some of the similarities to and differences from conditions in the United States.

In the main, pottery is made in England in about the same way as in the United States. This is not strange, as the pottery industry in America was an immigrant from England. Many pottery operatives in America learned their trade in England and many are the children of English-born potters.

As in the United States, the material is not of local origin but has to be brought in from other places. Ball clay comes from Devonshire and Dorsetshire, china clay from Cornwall and Devonshire, flint from the coast of France, and stone from Cornwall. Part of this material comes in by railroad and part on canal boats. The only supplies that are local are sagger clay and coal.

#### Slip House

The several ingredients are commonly ground separately in water and run into large blungers. The specific gravity of each liquid slip is tested and then the several liquids are mixed and kept stirred in another large vat. Before being used the slip goes through a series of screens and through a magnet trough. The usual crew is a slip mixer in charge, a wheeler who brings the material from the yard to the slip house, two press hands, and one or two puggers. All except the slip maker are commonly known as slip-house laborers. The employees are generally paid as a group per mix or per press. A mix results in about  $2\frac{1}{2}$  presses. Presses vary in size. They are generally wooden frames with canvas between. The canvas is folded to form a pocket, each pocket having a metal opening in the canvas so that the slip can enter. The frames are bound together, pipes are connected with the opening in each pocket, and the slip is forced in under pressure. A few disk presses are also in use. The common run is 16 mixes, making 40 presses, in a full week of 47 hours. One press will average about 25 hundredweight of 112 pounds.

The slip-house crew and their rates were furnished by one of the potteries. The rate for the crew per mix was stated as 18s. 1d. (\$4.40), divided as follows:

Two press hands, each at	3s. 9d. + $2\frac{1}{2}$ per cent	.....	\$0. 935
One pug man, at	3s. 0d. + $2\frac{1}{2}$ per cent	.....	. 748
One wheeler, at	3s. 0d. + $2\frac{1}{2}$ per cent	.....	. 748
Total	13s. 6d. + $2\frac{1}{2}$ per cent = 13s. 10d.	.....	3. 366
One slip maker, at	4s. 3d.	.....	1. 034
Total	18s. 1d.	.....	4. 401

A rough estimate of the average output for a full week of 47 hours also was given at this pottery, as follows: Number of mixes, 18; tons per mix,  $3\frac{1}{2}$ ; presses, 48; presses per mix,  $2\frac{2}{3}$ ; weights per press, 26 hundredweight of 112 pounds. It will be observed that these figures differ somewhat from those before stated.

Clay is taken from the press and pugged and repugged before it is used in the clay shop. Plants vary in the method of payment for pugging, and in some plants it is done by daywork.

#### Clay Shops

The clay-shop operations are jiggering or jollying, pressing, casting, and throwing. The terms "jiggering" and "jollying" appear to have an overlapping meaning and are almost synonymous. Most of the ware is made by the jiggering process, the jigger being operated by power. Casting is next in importance and is increasing. Pressing and throwing are decreasing.

Jigger men making plates are designated as plate makers. Sometimes they are referred to as flat pressers, although they use a jigger. Jigger operators making saucers are designated as saucer makers. Cups are spoken of as being "jollied." In England the word "jiggering" in its restricted sense seems to be limited mainly to large hollow ware, as slop jars, etc.

The jigger man and his helper usually carry their own clay from the corner of the room to their bench, and they may even carry the clay upstairs into the room. A few plants deliver clay to the bench.

Plate makers generally have no batter-out. The plate maker uses an automatic spreader. A ball of clay is placed by the plate maker on a revolving flat head. He then presses his knee against a lever and a slanting blade comes down slowly and smoothes out the bat of clay to the required thickness. He next raises the finished bat and throws the smooth side on his mold. The forming of the plate is the same as in the United States. The plate maker, by hand runs down the edge of the bat on the mold as it revolves, after which he pulls down the arm containing the profile, and this profile shapes the plate. He then trims off the small amount of surplus clay around the edge of the plate. The plate maker has a mold runner and a finisher, the same as in the United States.

Dobbin drying stoves are generally used. This stove is circular in shape and revolves on a perpendicular axis. The shelves are in tiers, running from the center to the circumference, like the spokes of a wheel. This leaves a V-shaped opening between the shelves. When the shelves are filled on each side of a V the shelving is turned until another V is opposite the door.

Usually men jigger plates 7-inch trade size and up, and women jigger the smaller ware.

The mold runner may be either a young male or a female and is called an attendant. The mold runners are paid by the jigger men and according to their age.

The finishers are all females and are generally referred to as towers. Each plate is finished separately and not in a stack, as is commonly done in the United States. The tower, who is paid by the jigger man, puts the plate on a revolving head, uses the tool to smooth the edge of the plate, then applies sandpaper and tow to the edge and inside of the plate, the tow being in the form of a sanded pad worn on the left hand.

The plate maker's rate of pay is per score dozen; that is, 20 times 12 plates. It was observed that most of the plates and other ware have low, broad, curved footing.

A sample settlement slip for a male plate maker in an English pottery is as follows:

Order	Article	Shape	Quantity (dozens of 12)	Rate per score dozen (20×12)	Amount
				<i>s. d. Cents</i>	<i>£ s. d.</i>
9-----	Soup No. 10...	A	30	3 11 (95.3)	5 10½ (\$1.430)
5-----	Soup No. 10...	B	100	3 11 (95.3)	19 7 (\$4.765)
3-----	Plate No. 8.....	C	40	3 4 (81.1)	6 8 (\$1.622)
4-----	Plate No. 7.....	C	40	2 8 (64.9)	5 4 (\$1.298)
50-----	Plate No. 6.....	D	160	2 7 (62.9)	1 0 8 (\$5.029)
Total.....					2 18 1½ (\$14.143)
Add 50 per cent.....					1 9 0½ (\$7.067)
Total.....					4 7 2 (\$21.210)
Add 2½ per cent.....					2 2 (\$0.527)
Gross earnings.....					4 9 4 (\$21.737)

To avoid identification, the shapes are lettered in the table. This crew worked four full days of 8½ hours. From the gross earnings the plate maker paid his help. The distribution was as follows:

Net for plate maker.....	£	s.	d.	
Boy mold runner.....	3	6	7	(\$16.201)
Girl tower (finisher).....	10	0		(\$2.433)
	12	9		(\$3.102)
Total.....	4	9	4	(\$21.737)

To illustrate the system of fixing rates, the basic rate for the 7-inch trade size plate is 2s. 2d. (52.7 cents); to this add 3d. (6.1 cents) as an extra allowance to help pay attendant. This, increased by 10 per cent, gives the rate 2s. 8d. (64.7 cents).

Deductions were made from the plate maker's net earnings as follows:

Health and unemployment insurance (compulsory).....	s.	d.	Cents
	1	4	(32.4)
Infirmary and club (voluntary).....	2		(4.1)
Total.....	1	6	(36.5)

The mold runner had no deductions. The tower also did towing for another plate maker, and her total earnings in the four days were £1 1s. 10d. (\$5.313). She had deductions as follows:

Health and unemployment.....	s.	d.	Cents
	1	0	(24.3)
Infirmary and club.....	2		(4.1)
Total deductions.....	1	2	(28.4)

The saucer makers, who are mostly females, use a jigger and a spreader. The saucer maker has a mold runner called an attendant, and also has a female finisher. The operations are the same as on plates.

Cup making is mostly done on a single jolly, but double jollies are used to some extent. The jolly is the same in general construction

and effect as the jigger used by the plate maker. When a double jolly is used one of the jollies is forming a cup while clay for another cup is being put in the mold on the other jolly. The cup-making crew may consist of three or four operatives, being, when of four, a jolly operator, a batter-out, a mold runner, and a sponger. The batter-out on cups uses a mallet and makes a flat bat. She then places the bat over a block shaped like the inside of the cup and smoothes down the edge of the bat. This gives the bat, roughly, the shape of a cup. The bat thus formed is taken from the block and put in a mold and the jolly operator places the mold on the jolly and forms the cup. A profile on an arm is brought down and finishes the shaping of the inside of the cup.

The base price covers all operators in the crew, the help being paid by the operator of the jolly.

The cup handler is usually a female. She has a helper or attendant, either a girl or a boy, who is paid by the cup handler, and who presses or casts the handles. These handles are trimmed either by the handler or the helper. The handler puts the handle on the cup and sponges it and boxes it at the same time. Boxing is putting one cup over another with the upper one inverted so that the edges come together.

Cups are not often turned, but they may be smoothed over a lathe head with a steel tool.

Casting is done on benches. Slip pipes run into the casting house from the slip house and spigots are opened to obtain the slip. There is no uniform piece price for casting as between different potteries. Casting is done both by males and by females. The caster generally has an adult female helper who finishes and sponges the article after being taken from the mold. The caster helper on piecework usually earns from 19s. (\$4.623) to 25s. (\$6.083) per week, but may receive up to 30s. (\$7.300) per week. In casting large ware such as ewers, the caster will do the casting, make the handles, stick them on, and do his own finishing. Hollow table ware is about 90 per cent cast and 10 per cent pressed.

There is a little throwing. This is done by hand with the clay mounted on a revolving horizontal wheel. This process may be used in making anything that is round, but only a few special kinds of ware are made by it.

Turning is done on thrown jugs and jars and, as before stated, only to a slight extent on cups.

Spouts on thrown jugs are shaped after the article has become partly dried, and this shaping is done by thumb and fingers. It is called knocking the spouts.

Some pressing is done on hollow-ware dishes. The presser usually does his own finishing. In the green room there is a foreman or overlooker who inspects the ware as it is brought in from the clay shop.

In sagger making the bottoms and sides are pounded out in a form by a helper and the sagger maker does the finishing, both the sagger maker and his helper being males. The helper is paid by the sagger maker at a time rate. There is some machine sagger making. The saggars are mostly oval and of different types. There are some banjo saggars and some square saggars, but few, if any, double banjo saggars.

## Bisque Kiln

In bisque placing there seems to be no standard number of men to a crew and no standard ratio of apprentices to journeymen. There is supposed to be one apprentice to each four journeymen, but there are many departures from this rule.

An average crew will consist of eight journeymen and two apprentices. The same crew places and draws the kiln. Green saggars for bisque are partly filled when fired in the bisque kiln. One of the journeymen, called the bench boss or "cod," gets an extra rate, the excess being paid by the company. In some instances there are two grades of journeymen of different skill, who are paid different rates.

Some kilns are paid for by the kiln as a whole, with the amount depending on the size of the kiln, by agreement with the union. By another method, the same in substance, the men are paid by the "kiln-day." By agreement with the union the kiln is assessed at so many kiln-days, this assessment or price fixing being determined by a measurement of the kiln. However, there seems to be no standard number of cubic feet per kiln-day, as in the United States.

Working moderately, a kiln-day will consist of placing 5 bungs or piles of common oval saggars 20 saggars high, and this placing is supposed to be done in 8 hours. The common oval sagger, outside measurement, is about 20 inches long, 14½ inches wide, and 8 inches high. With some effort, 6½ kiln-days are made in 47 hours, and often there is still more rapid work, bringing the number of kiln-days to more than 6½ kiln-days in the 47 hours.

The rate paid covers both placing and drawing. Bisque kilns vary in size. A typical kiln is about 19½ feet in diameter, 17½ feet high to the shoulder, and 22 feet high to the crown.

There are very few tunnel kilns. The general consensus in England is that they are not successful, although one make of kiln is said to be fairly so.

Bungs (stacks) of plates or other flat ware when placed in saggars are sanded in some instances and not in others.

Flat ware is set flat, although a statement was heard that in some instances the green ware may be reared in the sagger; that is, placed on edge and packed in with sand. No wad is placed around the top of the sagger going into a bisque kiln. The proportion of green saggars going into the bisque kiln is about one-tenth or one-eleventh of the total number.

A sample pay roll was obtained for a bisque crew for one week, which is as follows:

Occupation	Kiln-days	Rate	Amount
		<i>s. d.</i>	<i>£. s. d.</i>
Bench boss.....	6	11 9 (\$2.859)	3 10 6 (\$17.155)
Journeyman.....	6	10 9 (\$2.616)	3 4 6 (\$15.695)
Do.....	6	10 9 (\$2.616)	3 4 6 (\$15.695)
Do.....	6	10 9 (\$2.616)	3 4 6 (\$15.695)
Do.....	6	10 9 (\$2.616)	3 4 6 (\$15.695)
Do.....	5½	10 9 (\$2.616)	2 19 2 (\$14.397)
Do.....	4	10 9 (\$2.616)	2 3 0 (\$10.463)
Do.....	5½	10 9 (\$2.616)	2 19 2 (\$14.397)
Apprentice.....	5½	9 0 (\$2.190)	2 9 6 (\$12.045)
Do.....	6	5 0 (\$1.217)	1 10 0 (\$7.300)
Total.....	56½		28 9 4 (\$138.533)

It will be observed that this crew had 10 members. Of the 56½ kiln-days with which the men were credited 39½ were employed in setting and 17 in drawing. The piece rate per kiln-day is 7s. (\$1.703), which rate is increased by 50 per cent and compounded by 2½ per cent, making the regular rate for the journeyman 10s. 9d. (\$2.616) per kiln-day. The additional 1s. (24.3 cents) per kiln-day for the bench boss is paid by the company.

#### Warehouse

There is a foreman in the bisque warehouse. Frequently a woman contracts to do all of the handling of the bisque at a rate per kiln and hires her own help. The brushers, stamper, sorters, and carriers in the bisque warehouse are paid at a time rate and these occupations are usually filled by women. The stamper with a small stamp places the name of the company and the trade name on the bottom of the bisque ware.

#### Dipping

About half of the dipping is done by women, but, by agreement, women are gradually being eliminated from this line of work. Dipper are paid at a rate per kiln, the rate varying according to the size of the kiln. The helper, who is a female, is paid a time rate by the dipper.

About half of the potteries have mangles; that is, drying stoves, for flatware. The mangle consists of a tower about 50 feet high, with an endless chain, with shelves thereon, which runs up the tower and down on the other side. This tower is heated. The dipper places the dipped ware on the shelf in the mangle and the helper takes it off after it has been dried, about one-half hour being required for the ware to make the circuit.

In ordinary dipping, where there is no mangle, the dipper dips the ware and places it on a drainer and the helper takes the ware off of the drainer and puts it on boards.

There is no standard wage scale for dipping, the rate being adjusted, as between the union and each pottery. If working at a time rate it is about 8s. 4d. (\$2.028) per day, increased by 50 per cent and by 2½ per cent, making \$3.118. This covers the wages of the two persons. Pieceworkers average somewhat more in pay.

Even when there is a mangle, the hollow ware and cups are not placed therein but are placed on boards and the boards stacked beside steam pipes.

#### Glost Kiln

In glost placing the crew works collectively, as does the crew in bisque placing. There is no uniformity as to the size of the crew, but it averages about eight journeymen and two apprentices. One of the journeymen acts as bench boss and receives a slightly higher amount, the excess being paid by the company. The same rules as in bisque kilns apply as to paying per kiln or per kiln day.

Flatware is generally placed flat and supported by thimbles. Some ware is ranked on edge and held apart by a row of thimbles placed across the top. When ranked on edge the ware is supported

at the bottom by two saddles, which are long triangular pieces of fired clay. The export trade wants the flatware placed flat so as to leave a clean edge, hence, flatware for export is mostly set on thimbles. The cheaper home-trade ware is reared on edge leaving a blemished edge and one thimble mark on the bottom. About 80 per cent of the flatware is placed flat.

When the ware is placed flat two stacks of thimbles may be stacked and stuck to the edge of the sagger by a placer using a sticker of wad. In some instances the thimbles are stacked in piles sagger high by girls, with such stacking paid for directly by the company. When this is done the third row of thimbles is put in place by the placer who puts in the ware. In some instances the ware is placed in rank, with the ware sustained by pins stuck in each side of the sagger. Pins, as distinct from thimbles, are seldom used to support ware placed flat, as in the United States. The top of a sagger is wadded in the glost kiln.

Glost kilns vary in size. An average glost kiln is about 17½ feet in diameter, 15½ feet to the shoulder, and 20 feet to the crown. The drawing and placing is done by the same crew. Green glost saggars are commonly fired in the glost kiln. Placing and drawing is at the same kiln-day rate as in the bisque kiln. Four bungs, 20 high, of common oval saggars, are set in about eight hours. A sample week's pay roll for two glost-kiln crews was obtained from one of the potteries. It is as follows:

Occupation	Kiln-days	Rate	Amount
<i>First crew</i>			
Bench boss.....	6	s. d. 11 9 (\$2.859)	£ s. d. 3 10 6 (\$17.155)
Journeyman.....	6	10 9 (\$2.616)	3 4 6 (\$15.695)
Do.....	4	10 9 (\$2.616)	2 3 0 (\$10.463)
Do.....	5	10 9 (\$2.616)	2 13 9 (\$13.079)
Do.....	6	10 9 (\$2.616)	3 4 6 (\$15.695)
Do.....	1	10 9 (\$2.616)	10 9 (\$2.616)
Apprentice.....	6	7 6 (\$1.825)	2 5 0 (\$10.950)
Total.....	34		17 12 0 (\$85.650)
<i>Second crew</i>			
Bench boss.....	6	11 9 (\$2.859)	3 10 6 (\$17.155)
Journeyman.....	4	10 9 (\$2.616)	2 3 0 (\$10.463)
Do.....	6	10 9 (\$2.616)	3 4 6 (\$15.695)
Do.....	6	10 9 (\$2.616)	3 4 6 (\$15.695)
Do.....	6	10 9 (\$2.616)	3 4 6 (\$15.695)
Do.....	6	10 9 (\$2.616)	3 4 6 (\$15.695)
Do.....	3	10 9 (\$2.616)	1 12 3 (\$7.847)
Apprentice.....	6	7 6 (\$1.825)	2 5 0 (\$10.950)
Do.....	6	6 8 (\$1.622)	2 0 0 (\$9.733)
Total.....	49		24 8 9 (\$118.925)
Grand total.....	83		42 0 9 (\$204.576)

The shilling extra per kiln-day for the bench boss is paid by the company. Of the 83 kiln-days of the two crews, 64 kiln-days were taken in setting and 19 in drawing.

## Glost Warehouse

The glost warehouse is under the charge of a woman. The dressers and sorters are females, and are commonly employed by a woman who takes the contract per kiln. In other cases the firm hires dressers and sorters directly. A day rate is paid in either case. Selecters are hired by the day.

## Decorating

Printing is mostly done under glaze and decalomania work over glaze. A considerable part of the ware is printed. The printer has two helpers, a journeywoman who does the transferring and a female apprentice who does the washing off. On ware, for example, where the rate is 11s. 2d. (\$2.717) per score dozen (240 pieces) the rate is divided approximately as follows: The printer takes 5s. 11½d. (\$1.450), the journeywoman receives 3s. (73 cents), and the apprentice 2s. 2½d. (53.7 cents), making the total 11s. 2d. (\$2.717).

Hand painting is done by females at piece rates. Decal transferrers are females and are paid at piece rates, each woman working independently.

## Decorating Kiln

The hardening-on kiln may be used on under-glaze decorated ware, as well as on decal ware.

## Packing

The packing is piecework, and both journeyman and apprentices are employed. Each packer has an assistant paid by the day by the company. There is no teamwork.

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## Wages in the German Pottery Industry

**M**OST of the German earthenware is said to be coarser than the general run of American semivitreous ware. The lower-grade porcelain has much the appearance of American semivitreous ware, but it is more or less translucent.

For wage-agreement purposes pottery workers in Germany are divided into four groups. There is the natural division of males and females, and each of these is separated into two classes—the skilled workers, who have served an apprenticeship, and “others,” who may be semiskilled or unskilled.

The only wage data obtained, which were supplied by the manufacturers' association, were the tariff or basic hourly rates paid by agreement to each of these four classes, and percentages showing for each class the excess of earnings over the basic rates, with a statement of the occupations that fall under each class. There are different basic rates in each of four groups of localities into which the potteries of the country are divided, the differential in rates being based on the difference in the cost of living in these localities.

The agreement now in force lists the localities in each wage district and the occupations falling within the skilled labor wage group. It explains conditions of employment in such detail that it is reproduced at the end of this article. It is interesting to note, in article 14, what occupations are classed as skilled. Kiln placers, who are classed and paid as skilled workers in the United States, are not included in the list.

The whole system of wage payment is difficult for an American to understand. As stated, occupations are treated in blocks or groups and all occupations in the block are considered equal in the matter of wage payments. Theoretically at least, all skilled workers are equal whatever the occupation and entitled to the same pay, and the same is true of unskilled workers.

The general agreement is as wide as the ceramic industry, and the same is true of the wage figures here shown. The whole field is included, from very common earthenware up through common porcelain into very fine porcelain, and from general ware to sanitary ware. Rates governing the first four months of employment were obtained, but being of little significance are not here included.

Table 1 shows the basic time rates of the four classes of workers. These basic rates are minimum rates, the rates actually paid being higher. The company pays as much more as may be mutually agreed upon by the company and the union, and possibly to some extent there may be private understandings between employer and employee.

The table also shows the percentage above the minimum that is being paid to the general group taken as a whole. Percentage figures for each separate age group therein were not obtainable, such information being withheld, it was stated, for special local reasons. As most of the skilled men and women are over 24, the percentage shown in the table is probably very close to the percentage actually paid such persons, and on that assumption full earnings have been computed for that age group and are presented in the table.

In this industry many unskilled or semiskilled persons under 24 years of age are employed and they fall almost entirely in the "other" group, making the age groups in this general group more nearly equal, so that the percentage payment above the base shown is nearly that actually paid to each age group. The percentage actually paid is probably higher for those over 24 years of age and somewhat lower for the lower ages.

The wages heretofore referred to are those of time workers. Sixty per cent of the pottery employees, however, are piece workers or, to use the German term, are on an "accord" basis. By agreement, or "accord," hourly rates were fixed as a basis for the determination of piece rates. These hourly rates are shown in Table 1. Any person competent to receive the highest minimum time rate may go on the accord basis at the rate for his class. He is then given a piece rate that will allow him to earn the basic accord rate per hour if he works at a normal speed. By increasing his speed above normal he can increase his hourly earnings.

There is no standard piece rate for any specific article, as is commonly found in the United States, as for the same article rates may vary from plant to plant and even in the same plant. A skilled

worker and a semiskilled worker may make the same article in the same quantity but at different piece rates.

No wages by occupation were available, but by inspection of the occupational classification (p. 137) and the group earnings in Table 1, an approximate idea can be obtained of occupational average earnings.

TABLE 1.—BASIC TIME AND "ACCORD" HOURLY RATES PAID IN GERMAN POTTERIES (AFTER FIRST THREE MONTHS IN THE POTTERY), PERCENTAGE ABOVE BASIC RATES ACTUALLY PAID, AND ESTIMATED ACTUAL EARNINGS PER HOUR

Class of workers	Berlin			District A		
	Basic rate per hour	Per cent over basic rate actually paid	Estimated actual earnings per hour	Basic rate per hour	Per cent over basic rate actually paid	Estimated actual earnings per hour
<i>Time workers</i>						
<i>Skilled male workers:</i>						
First year after end of apprenticeship.....	<i>Pfg. Cts.</i> 49 (11.7)	} 33	<i>Pfg. Cts.</i> 102 (24.3)	<i>Pfg. Cts.</i> 44 (10.5)	} 24	<i>Pfg. Cts.</i> 86 (20.5)
Age under 20.....	60 (14.3)					
Age 20 and under 24.....	71 (16.9)					
Age 24 and over.....	77 (18.3)					
<i>Other male workers:</i>						
Age 15 and under 16.....	26 (6.2)	} 16.5	175 (17.9)	23 (5.5)	} 11	163 (15.0)
Age 16 and under 18.....	40 (9.5)					
Age 18 and under 20.....	49 (11.7)					
Age 20 and under 24.....	57 (13.6)					
Age 24 and over.....	64 (15.2)					
<i>Skilled female workers:</i>						
First year after end of apprenticeship.....	<sup>2</sup> 29 (6.9)	} (?)	-----	28 (6.7)	} 5	<sup>3</sup> 43 (10.2)
Age under 20.....	<sup>2</sup> 38 (9.0)					
Age 20 and over.....	<sup>2</sup> 47 (11.2)					
<i>Other female workers:</i>						
Age 15 and under 16.....	17 (4.0)	} 13.7	<sup>3</sup> 43 (10.2)	15 (3.6)	} 10	<sup>3</sup> 39 (9.3)
Age 16 and under 18.....	25 (6.0)					
Age 18 and under 20.....	32 (7.6)					
Age 20 and over.....	38 (9.0)					
<i>Pieceworkers</i>						
Skilled male workers.....	82 (19.5)	62	133 (31.7)	75 (17.9)	33	104 (24.8)
Other male workers.....	74 (17.6)	41	104 (24.8)	65 (15.5)	35	90 (21.4)
Skilled female workers.....	<sup>3</sup> 50 (11.9)	(?)	-----	45 (10.7)	18	53 (12.6)
Other female workers.....	45 (10.7)	42	64 (15.2)	40 (9.5)	26	50 (11.9)

<sup>1</sup> Estimated earnings of time workers aged 24 and over.  
<sup>2</sup> The rates are nominal, as no women are employed.  
<sup>3</sup> Estimated earnings of time workers aged 20 and over.

TABLE 1.—BASIC TIME AND "ACCORD" HOURLY RATES PAID IN GERMAN POTTERIES (AFTER FIRST THREE MONTHS IN THE POTTERY), PERCENTAGE ABOVE BASIC RATES ACTUALLY PAID, AND ESTIMATED ACTUAL EARNINGS PER HOUR—Con.

Class of workers	District B			District C		
	Basic rate per hour	Per cent over basic rate actually paid	Estimated actual earnings per hour	Basic rate per hour	Per cent over basic rate actually paid	Estimated actual earnings per hour
<i>Time workers</i>						
Skilled male workers:	<i>Pfg.</i>	<i>Cts.</i>	<i>Pfg.</i>	<i>Cts.</i>	<i>Pfg.</i>	<i>Cts.</i>
First year after end of apprenticeship.....	40	(9.5)	16	72	12	67
Age under 20.....	49	(11.7)				
Age 20 and under 24.....	57	(13.6)				
Age 24 and over.....	62	(14.8)				
Other male workers:						
Age 15 and under 16.....	21	(5.0)	9	57	7	55
Age 16 and under 18.....	32	(7.6)				
Age 18 and under 20.....	42	(10.0)				
Age 20 and under 21.....	47	(11.2)				
Age 24 and over.....	52	(12.4)				
Skilled female workers:						
First year after end of apprenticeship.....	25	(6.0)	12	41	1	36
Age under 20.....	31	(7.4)				
Age 20 and over.....	37	(8.8)				
Other female workers:						
Age 15 and under 16.....	14	(3.3)	13	35	6	32
Age 16 and under 18.....	20	(4.8)				
Age 18 and under 20.....	27	(6.4)				
Age 20 and over.....	31	(7.4)				
<i>Piecoworkers</i>						
Skilled male workers.....	66	(15.7)	28	84	20	78
Other male workers.....	59	(14.0)	28	76	17	67
Skilled female workers.....	40	(9.5)	16	46	39	43
Other female workers.....	36	(8.6)	16	42	35	39

<sup>1</sup> Estimated earnings of time workers aged 24 and over.

<sup>2</sup> Estimated earnings of time workers aged 20 and over.

### Employment

THERE are about 70,000 workers in the industry—20,000 in earthenware and 50,000 in porcelain potteries. Of the total number about 55 per cent are males and 45 per cent females. About 58 per cent of the workers in the industry in April, 1926, were working full time, 30 per cent were working 24 to 30 hours per week, and 12 per cent were unemployed. Table 2 shows the distribution of skilled and unskilled workers, by sex and method of payment:

TABLE 2.—PER CENT OF WORKERS EMPLOYED BY MEMBERS OF MANUFACTURERS' ORGANIZATION WHO ARE PAID AT TIME AND PIECE RATES

Class of workers	Per cent of each class who are paid at—			Per cent of total who are paid at—	
	Time rates	Piece rates	Total	Time rates	Piece rates
Male skilled workers.....	26.0	74.0	100.0	17.2	32.9
Other male workers.....	6.2	93.8	100.0	1.0	9.9
Female skilled workers.....	68.2	31.8	100.0	49.1	15.4
Other female workers.....	34.5	65.5	100.0	32.7	41.8
All workers.....	40.2	59.8	100.0	100.0	100.0

## Wage Adjustments

IN MAKING wage adjustments the union is permitted to represent nonunion workers, who are few in number. In case the companies and unions can not settle differences, they are referred to a local arbitration board and thereafter to the Ministry of Labor.

## Hours

THE prevailing hours of the industry are eight per day, although in some localities the customary working hours are longer. The most common working time is 7 to 9 a. m., 9.15 a. m. to 12 m., and 1 to 4.15 p. m. The employees usually work full time when work is available, especially now that work is slack.

## Production and Kiln Losses

A LITTLE information was obtained as to per capita production. According to one statement obtained, a jigger man working alone will make about 3,000 of the cheaper porcelain 23-centimeter (7-inch) plates in a 48-hour week, doing his own finishing. If another person is employed to do the finishing the jigger man will make about 4,000 such plates, and if one person is employed as a spreader to make the bat and another to do the finishing the jigger man will turn out about 5,000 of these plates a week.

*Earthenware pottery.*—In an earthenware pottery the following statement of production was obtained:

A jigger man and a spreader will make 7,000 23-centimeter plates in 48 hours, with both working together in the finishing, the jigger man rounding the edge and the spreader boy doing the sponging.

On saucers a jigger man and spreader will make and finish 7,800 saucers in 48 hours. A jigger man working alone, doing his own spreading and finishing, will make and finish 4,800 per week.

As to cups, one jigger man alone will make and finish the edge of 3,300 cups in a week. One person working alone will cast the handles and put them on 3,300 cups per week.

On 1-liter jugs a caster will make from 80 to 90 per hour. The woman finishing for him will finish from 17 to 29 per hour. On 2-liter jugs one caster will make about 67 per hour and the woman helper will finish from 14 to 19 per hour.

On 30-centimeter oval dishes a jigger man and boy helper will make and trim the edges on 1,000 pieces in 48 hours. In casting 30-centimeter oval dishes the caster will make about 2,100 pieces per 48 hours. The woman finisher will finish from 900 to 1,300 per week.

The plant reports that it has a loss of from 3 to 5 per cent of broken ware from the bisque kiln, and, based on valuation, a loss at the glost kiln of 3.8 per cent classed as broken or lump and 7.2 per cent classed as poor.

The same men do the placing and the drawing on the bisque kiln and are paid per cubic meter.

The relative earnings of the members of a dipping and glost-placing crew in this plant are here illustrated:

8 dipping women get.....	26 per cent, or $3\frac{1}{4}$ per cent each.
15 women putting ware in saggars....	47 per cent, or $3\frac{2}{5}$ per cent each.
2 men putting saggars in kiln.....	11 per cent, or $5\frac{1}{2}$ per cent each.
2 men bringing ware from glaze room to placing bench.....	11 per cent, or $5\frac{1}{2}$ per cent each.
2 women cleaning bisque.....	5 per cent, or $2\frac{1}{2}$ per cent each.

100

Five men do the glost drawing.

The slip-house processes seem to be about the same as in the United States. Ware, as produced in the clay shop, is dried on open racks. There are no stove rooms, but it is stated that stove rooms are used in some potteries. In this pottery the decorating is mostly underglaze. The placing of ware in the saggars and the placing of saggars in the kiln are not classed as skilled work. Flat ware is put in stacks or bungs when placed in the saggars and the ware is not sanded.

Dipped flat ware is placed on edge in the sagger. The first plate leans against a triangular saddle at the front of the sagger. The ware rests on two saddles at the bottom of the sagger and the pieces are held apart by struts. This leaves two slight faults on the edge of the ware and one on the top of the rim. These nips are dressed down after firing.

It was stated that in some potteries bats were cut out in the clay shop by wire instead of being spread. In this pottery clay carriers are employed to deliver clay to the jigger man. The jigger man stops his work to put boards filled with ware on the drying rack. Saggars are made by a jigger machine and by a press. Many saggars are small; they are mostly oval, although some are square and some are round.

*Porcelain pottery.*—In a porcelain plant the following data as to production were obtained: Two jigger men and one spreader, who works for both, will make but not finish 1,200 19-centimeter plates in  $9\frac{1}{2}$  hours, the clay being brought to them. The finisher will finish 2,000 plates in  $9\frac{1}{2}$  hours. This pottery is not making 23-centimeter (7-inch) plates.

On 13-centimeter saucers four jigger women and one girl who operates an automatic spreader will make but not finish 3,500 pieces in  $9\frac{1}{2}$  hours. The finisher will finish 3,000 saucers in the same time.

One jigger woman will make and finish 800 cups in  $9\frac{1}{2}$  hours. On a double jigger she will make but not finish 1,800. A cup finisher will finish 3,000 cups in  $9\frac{1}{2}$  hours. A cup handler will cast the handle and put them on 800 cups in a day.

A caster will cast and finish 120 1-liter jugs in  $9\frac{1}{2}$  hours. If he casts the jugs and sticks on the handles separately and does the finishing he will make 100 jugs in  $9\frac{1}{2}$  hours. A caster will make and finish 130 30-centimeter oval platters in  $9\frac{1}{2}$  hours.

This plant, while working nine and one-half hours per day, works only a half day on Saturday. The plant reports its losses at the kilns as follows: Broken bisque, 10 per cent; broken glost,  $7\frac{1}{2}$  per cent; thirds in glost, 7 per cent. This leaves  $75\frac{1}{2}$  per cent of green-

room ware remaining as first and seconds as the ware leaves the glost kiln.

There is generally one spreader for two jigger men. The spreader is paid direct by the company and not by the jigger men. The spreading is done on a canvas stretched over a wooden frame. The frame and bat are then placed top down on the mold and the canvas is removed, leaving the bat on the mold.

The cup jigger man does his own balling. The plate makers are classed as "facharbeiters," or skilled workers, but cup makers are not so classed. There are no stove rooms used in this pottery. The ware is dried in stacks near the kiln or on the next floor above the kilns near the kiln chimneys. Glazed cups are boxed for firing by dipping the edges in a liquid that forms an insulation.

It is stated that kilns are handled differently in various localities. In some instances bisque and glost ware are fired in the same kiln at the same time. In other cases the kiln may be used alternately for bisque and glost ware, but generally there are separate kilns for bisque and glost firing.

#### NATIONAL COLLECTIVE AGREEMENT FOR THE GERMAN FINE CERAMIC INDUSTRY, EFFECTIVE FEBRUARY 1, 1926

The following agreement for the purpose of uniform regulation of wage and working conditions is concluded by the Employers' Association of the German Fine Ceramic Industry on the one hand, and the Federation of Porcelain and Allied Workers of Germany, the Trade Federation of German Ceramic Workers, the Federation of Hirsch-Duncker Trade-Unions, the German Metal Workers' Federation, the Federation of Engineers and Firemen, and the German Transport Workers' Federation, on the other hand:

##### I. SCOPE

ARTICLE 1. The provisions of this agreement are applicable within the territory of the German Commonwealth to all male and female manual workers employed in any establishment of the porcelain, stoneware, and sanitary ware industry, and in other fine ceramic establishments. Persons who in accordance with the law relating to salaried employees' insurance are compulsorily insured do not come within the scope of this agreement.

Section X shall be applicable to apprentices.

##### II. TARIFF CLASSES

ART. 2. In view of the diversity of economic conditions in the individual localities and districts, the following tariff wage classes have been formed:

Class.—Greater Berlin.

Class A.—Bonn on the Rhein, Breslau, inclusive of Carlowitz, Cainsdorf, Chemnitz, Danischburg, near Lubeck Darmstadt, Dresden, inclusive of Potschappel [30 other enumerated localities omitted].

Class B.—Althaldensleben (Saxony), Altwasser, Ambert, Arnstadt (Thuringia), Arzberg, Auma, Bad Schmiedeberg (District Halle), Bayreuth, Blechhammer, Boilstedt near Gotha, Brattendorf, Bunzlau, Burgau near Jena [129 other enumerated localities omitted].

Class C.—Alexandrinenthal, Altenkundstadt (Upper Franconia), Annaburg, Arneburg, Beutelsdorf (Saxe-Altenburg), Blankenhain, Bock and Teich, Brambach, Breitenbach near Schleusingen, Burggrup (Upper Franconia), Cortendorf near Coburg [104 other enumerated localities omitted].

## III. HOURS OF LABOR

ART. 3. In principle the hours of labor shall be 48 per week.

If there are legal holidays in a week, the hours of labor during this week shall be reduced correspondingly.

Deviations from the preceding provisions are regulated in a special agreement or shall be so regulated.

ART. 4. The distribution of the hours of labor and the determination of rest periods is left to the agreement of the management of the establishment with the works council.

ART. 5. Rest periods, as well as the time required for dressing and undressing, shall not be included in the hours of labor, with the following exceptions:

(a) During the heating of kilns and smelters the rest periods shall be reckoned as hours of labor in the case of kiln firemen and smelters. The time during which engineers and firemen have to watch the engines shall be reckoned in full as hours of labor.

(b) Rest periods of a length suitable to the occupation, permitting the workers to wash themselves, may be agreed upon by the management and the works council.

ART. 6. If the workers are regularly given Saturday afternoon off, the hours of labor thus missed shall be distributed over the remaining week days.

ART. 7. Preparatory and supplementary work beyond the regular daily working time, which is necessary in order that the agreed working time may be fully used for production, shall be performed outside of the regular hours of labor.

As such work shall be considered the firing up and drawing of the fires of steam boiler and heating plants, the preparation of driving machinery, repair work on machinery, cleaning and clearing of rooms, loading and unloading, etc.

ART. 8. In deviation from the provisions relating to article 616 of the Civil Code contained in shop rules, employers shall compensate workers for time during which the worker without any fault of his own is prevented from performing work. As incontestable reasons for prevention from performing work shall be considered the following:

(a) A summons in writing from a public authority. The summons is to be shown to the proper chief (boss). If the worker is summoned as defendant or to look after his personal interest (distribution of an estate, sale of real property, etc.), his absence from work shall not be compensated.

(b) The making of legally prescribed reports to the authorities—it must be proved that the report could not be made by third parties—especially the reporting of deaths of parents, consorts, children, brothers or sisters, foster children or foster parents, and attendance of their funerals.

(c) A first visit to a physician owing to an industrial accident or to a sickness attested by the physician, in so far as the visit can not be made outside of working hours.

(d) Attendance at a trade school, a ceramic department of a trade school, or specified courses in a trade school.

The worker prevented in such cases from performing work shall submit to his chief credible proof thereof. Whenever possible, such proof shall be submitted before the worker absents himself. For the necessary time of absence, not in excess of four hours, the absent worker shall receive compensation at the hourly time rate, and if he is a pieceworker at the rate of his average daily earnings during the last four working weeks.

The worker must consent, however, that any amount legally due him from a third party for the period of his prevention from work be deducted from the compensation due him from his employer.

ART. 9. Workers shall receive no compensation for interruptions of operation for a period not in excess of half an hour.

In case of interruptions of operation for a period in excess of half an hour the following provisions shall be applicable:

If interruptions of operations are caused by defective machinery, lack of gas, electric current, water power, coal, or other operating materials, raw materials, or half-finished products, which could not be prevented or quickly remedied by the employer, no compensation shall be due to the workers for the lost time.

In all other cases of interruption of operation the first four hours lost shall be compensated at full pay and the next four hours at half pay. Any further time lost shall not entitle the workers to compensation.

Workers shall, as soon as possible, call the attention of the management to any threatened interruption of operation and to the beginning of such interruption. If any interruption of operation prevents a worker from performing his usual work he shall perform other work assigned to him.

If interruptions of work of the kind named in the second and third paragraphs are caused by the fault of the employer he shall compensate the workers for the lost time until the term for giving notice of discharge has expired.

#### IV. OVERTIME AND SUNDAY WORK

ART. 10. Overtime work is regulated by the special agreement mentioned in article 3.

ART. 11. Sunday work shall be permissible in urgent cases only. Emergency work, i. e., work on the immediate performance of which the undisturbed operation of the establishment depends, shall on order of the employer be performed without protest.

ART. 12. As Sunday work shall be considered any work performed on Sundays or legal holidays, during the period beginning at midnight on Saturday and ending at midnight on Sunday or during the corresponding period on legal holidays.

ART. 13. Sunday work shall be compensated with 50 per cent extra pay. A lunch bonus amounting to 5 per cent of the regular wage rate, exclusive of premiums shall be allowed for night work (from 10 p. m. to 6 a. m.) which is not to be compensated as overtime.

Doormen and watchmen shall not be paid any extra compensation for Sunday work.

#### V. WAGES

ART. 14. As skilled workers shall be considered those workers who have served an agreed training period or an apprenticeship in their trade and are employed in this trade.

Workers of the following occupational groups shall be entitled to skilled workers' wages if they can prove that they have been employed in the occupational group in question half a year in excess of the apprenticeship period usual in this occupational group, provided that during this period they were employed at work performed as a rule by skilled workers. The same applies to female workers:

##### *A. Earthenware and sanitary ware industry*

1. Modelers.
2. Mold-form makers.
3. Tile makers.
4. Mold casters.
5. Jiggers, turners, throwers, male and female.
6. Shapers, design workers, decoration placers, male and female.
7. Casters, sanitary ware, male and female.
8. Handle and spout affixers, male and female.
9. Finishers, male and female.
10. Sagger makers, hand and machine.
11. Painters, male and female.
12. Color and gold banders, male and female.
13. Stencil cutters.
14. Color sprayers, male and female.
15. Decorators, color stamps, male and female.
16. Engravers and print plate makers.
17. Plate and lithograph printers, exclusive of female helpers.
18. Lithographers.
19. Photographers.
20. Mechanics.
21. Head kiln firemen.
22. Chauffeurs.
23. Steam engineers and firemen.

##### *B. Porcelain tableware industry*

1. Shapers.
2. Jiggers.
3. Casters, if skilled turners or shapers.
4. Painters, male and female.

5. Color sprayers, male and female.
6. Mold-form makers.
7. Mold casters, male and female.
8. Design workers, decoration placers.
9. Sagger makers, male and female.
10. Modelers.
11. Lithograph printers, photographers, mechanics, lithographers, pressmen, engravers, and print plate makers.
12. Head kiln firemen.
13. Steam engineers and firemen.
14. Chauffeurs.

*C. Electrotechnical porcelain industry*

[Practically the same occupations as enumerated above.]

*D. Finest porcelain industry*

[Practically the same occupations as enumerated above.]

If a male or female worker has qualified as a skilled worker or has acquired the right to remuneration as a skilled worker, he shall retain his right to remuneration as a skilled worker if he finds employment in the same occupational group in another establishment.

In the case of kiln firemen, three years' uninterrupted employment as a fireman shall be considered equivalent to finished apprenticeship.

Engineers and steam-boiler firemen qualify as skilled workers when they have passed a State examination and have been certified. If they have not passed such an examination, they shall be considered skilled workers after two years' uninterrupted employment as engineers or steam-boiler firemen. The two-year period of uninterrupted employment may cover employment in several establishments.

If a skilled worker regularly performs work that comes within his trade he shall be remunerated as a skilled worker even if there are no skilled workers in his trade in the establishment in question, as for instance when a jigger works as a sagger maker, or a shaper as a caster, or a painter as printer, etcher or color sprayer, etc.

ART. 15. All male and female workers who up to January 31, 1926, had the right to remuneration as skilled workers shall continue to be paid as such if retained in their former occupation.

ART. 16. Skilled workers of another industry employed in their trade in establishments of the fine ceramic industry shall, if they have served the apprenticeship usual in their trade, be remunerated at the rates paid to skilled workers of the fine ceramic industry.

All other workers of other industries who are employed in the fine ceramic industries shall be remunerated at the rates paid unskilled workers in the fine ceramic industry.

In deviation from the above rule, photographers, lithographers, printers, engravers, print plate makers, pressmen, toolmakers, machinists, blacksmiths, tinsmiths, electricians, steam engineers, and firemen and chauffeurs, shall unless employed at piecework, receive the minimum rates of skilled workers in the fine ceramic industry increased by 25 per cent.

Drivers shall receive the time rates of unskilled workers increased by 5 per cent.

Workers engaged in the cleaning of boilers, chimneys, fuel economizers, and gas generators shall receive a bonus in addition to their regular wages.

Chauffeurs, drivers, and their helpers when sent on trips to outside localities shall be granted an allowance for meals and, if forced to stop over night, also for lodging. The amount of these allowances shall be fixed in the current wage agreement.

ART. 17. What is said in this agreement as to skilled and other workers of the male sex applies also to skilled and other workers of the female sex, with the exception of the contents of article 14, A, B, C, and D. Female workers have a claim to remuneration as skilled workers only if they are explicitly named in that article.

ART. 18. The differences between minimum hourly rates and the actual piecework earnings shall be computed every four weeks. If a pieceworker's production remains for more than three consecutive accounting periods at

between 80 and 100 per cent of the production corresponding to his minimum hourly wage he shall lose for three months the rights to a minimum hourly wage.

ART. 19. If the production of a pieceworker during such an accounting period falls more than 20 per cent below the production corresponding to his minimum hourly wage he shall be paid for this accounting period not the minimum hourly wage but the wage he has actually earned.

ART. 20. Workers who are not fully efficient owing to physical or mental infirmities shall not be guaranteed a minimum hourly wage. Disputes in this respect shall be decided jointly by the management and the works council.

ART. 21. The wage rates for timeworkers as well as the basic rates for piecework shall be fixed in a special wage agreement and shall be graded in accordance with the local classes enumerated in article 2 for skilled and other workers of the male sex and for skilled and other workers of the female sex, and in accordance with the age of the workers. The following groups and age classes shall be formed:

(a) Skilled workers, male: Skilled workers during the first year after termination of the apprenticeship and semiskilled workers under 18 years of age during the first year after acquisition of the character of skilled workers; under 20 years; 20 and under 24 years of age; 24 years of age and over.

(b) Other workers, male: Fifteen and under 16 years of age; 16 and under 18 years of age; 18 and under 20 years of age; 20 and under 24 years of age; 24 years of age and over.

(c) Skilled workers, female: Skilled workers during the first year after termination of their apprenticeship and semiskilled workers under 18 years of age, during the first year after acquisition of the character of skilled workers; 18 and under 20 years of age; 20 years of age and over.

(d) Other workers, female: Fifteen and under 16 years of age; 16 and under 18 years of age; 18 and under 20 years of age; 20 years of age and over.

There shall be no fixed wage scale for male and female workers under 15 years of age.

The special wage agreement shall fix: (a) Minimum rates; (b) basic piece rates; (c) time rates.

Minimum rates shall be applicable to beginners; as guaranteed rates for piecework; as basis for the computation in accordance with article 23 of the basic piece rates.

The basic piece rate shall serve as a base for the determination of the piece rates.

Time rates shall be paid to those workers who after continuous employment for more than three months in the same establishment can not be employed at piecework. Higher time rates may be granted for specially efficient work, and the time-rate earnings of skilled workers shall as a rule not be lower than the basic piecework rate.

An increase of minimum, basic piece, and time rates for whole local classes, occupational groups or age classes shall be out of the question during the validity of the agreement.

ART. 22. Work which by its nature and quantity seems suited for piecework production shall after agreement of the management with the works council be executed as piecework.

ART. 23. The piece rates for the individual articles shall be computed on the basis of the average production, and of the minimum hourly rate of male workers over 24 years of age and of female workers over 20 years of age, increased by 25 per cent.<sup>1</sup>

In the determination of the average production and of the piece rates there shall be considered:

(a) The particular occupation of the worker but not the whole occupational group (for instance, plate jiggers but not the whole jiggering department).

(b) Those male and female workers who have worked continuously for at least one year in the occupation in question (for instance, as plate jiggers). If such workers are not existent in the occupation in question those male and female workers shall be considered who have worked continuously in that occupation for at least half a year.

On the other hand, there shall be left out of consideration:

(c) In the case of piece rates for skilled workers all other workers employed in the same occupation who have not yet acquired the right to remuneration as skilled workers.

<sup>1</sup> Twenty-five per cent over the rate specified for the first three months of service.

(d) In the case of piece rates for other than skilled workers, those skilled workers who work in the same occupation.

(e) Those male and female workers to whom articles 18, 19, and 20 are applicable, and apprentices.

ART. 24. If, by order of the management, pieceworkers, and especially skilled workers, are being temporarily employed at time rates, they shall be entitled to average piecework earnings only if their employment at time rates is not due to lack of piecework; otherwise they shall be paid at the time rate of the occupation in question.

In doubtful cases the term "temporarily" shall be defined by the management in agreement with the works council.

ART. 25. If a worker is transferred to another occupational group he shall, during the term usual in the establishment for giving notice of discharge, but at the longest for a period of 10 days, be paid at the rate of his earnings in his former occupation. After the expiration of this period he shall be paid at the rate of his new occupation.

ART. 26. Kiln men in the sanitary ware industry and head smelters if employed at time rates shall be paid at the minimum hourly rate plus 25 per cent.

ART. 27. All time and piece rates shall be determined in agreement with the wage committee which shall be composed of not more than three workers, and, in the case of rates for skilled workers, exclusively of skilled workers.

If differences of opinion arise the works council shall be consulted. If an agreement can not be reached the work, until final determination of the piece rate which shall be effected within two weeks at the latest, shall be done as provisional piecework and be paid for at the basic piece rate, accepted as a provisional hourly rate. After final determination of the piece rate in accordance with the provisions of article 23, any resulting difference between the correct piece rate and the rate paid provisionally shall be made up to the worker.

The wage committee shall be compensated for its loss of time by the employer in so far as it has been active on the latter's order.

ART. 28. All piece and time rates shall be posted in the establishments or arranged in book form and such rate books must be open to inspection at suitable places.

ART. 29. All tools and materials shall be furnished to the workers at cost, assuming that the labor share of the price of the article is thereby not lessened.

Deviating agreements in the individual establishments are permissible but must not involve reduced earnings. The second clause of the first paragraph shall be applicable correspondingly.

ART. 30. If there is a change in the working system, as for instance, owing to the introduction of new machinery, labor methods, or materials, or if a pattern is altered, and an increase or decrease of production is thereby involved, new piece rates shall be agreed upon. The same shall take place if new patterns are introduced.

If a mistake manifest to both parties has occurred in the computation of piece rates the rates in question shall be rectified.

The second paragraph shall as a rule not be applicable when the piece rate does not exceed the basic piece rate by more than the average of the piece rates of the occupational class in question.

## VI. PAYMENT OF WAGES

ART. 31. Wages shall be paid at intervals not longer than two weeks. If more than a week intervenes between pay days, workers shall be permitted to draw a suitable amount on account of their earnings.

ART. 32. The wages earned by a worker must be credited to him not later than three days after the close of the wage period in which he has completed the article or the job.

Wages shall be paid in full at the close of each wage period. The paying off of workers must be completed before the close of the working hours.

ART. 33. Deductions for defective work shall be permissible only if the defects are due to a willful act or negligence on the part of the worker, if he has not performed his work in accordance with the labor methods of his trade, or has not observed the usual care in the performance of the work assigned to him.

If the worker protests against a deduction the question whether he is at fault shall be decided jointly by the management and two expert workers (committee on defective production). If no agreement can be reached half of the wage in

question may provisionally be deducted from the worker's pay and his protest shall be decided by the same procedure as is used in the conciliation of labor disputes on the basis of opinions of two experts one of whom shall be nominated by each party. The experts shall render their opinion on the basis of personal investigations in the establishment.

The committee on defective production shall when acting as such be compensated by the employer for the loss of wages.

ART. 34. All workers shall be handed order and wage books or slips which show what work they have been ordered to perform and indicate the earnings credited to the worker. The order slips must show the rate of wages applicable to the order.

Current wage lists shall be kept for wages paid.

#### VII. VACATIONS WITH PAY

ART. 35. In the calendar year subsequent to their employment workers who have been employed at least half a year in the same establishment shall be granted two days' vacation with pay and a further day's vacation for each subsequent year up to a maximum of eight days. After 12 years' employment in the same establishment a vacation of 10 days shall be granted. After 15 years' employment in the same establishment workers employed in Greater Berlin and in localities coming under Class A (page 135) shall be granted a vacation of 12 days. Only working-days shall be counted as vacation days.

The claim to vacation is to be governed by the length of employment in the same establishment. Credit is to be given for former employment in the same establishment, in so far as the worker has not left voluntarily (with the exception of the cases enumerated in article 124 of the industrial code) or has been discharged for cause.

War service, auxiliary service in the war, service in the German Army, discontinuance of the employment owing to events connected with the war, sickness, strike and lockout, as well as complete or partial shutdown of the establishment shall not be considered as interruption of the period of employment in computations for the granting of vacations.

ART. 36. Vacations must be granted in that calendar year in which a claim to vacation has accrued. The time for the vacation is to be fixed by the management in agreement with the works council. The establishment shall, however, have the right to shut down for a period not in excess of six days. In such a case the individual workers shall receive pay only for the period of vacation due to them.

ART. 37. Vacations may not be worked with pay therefor. A vacation not claimed up to the end of the year shall be considered as lost.

ART. 38. Each worker granted a vacation shall be paid at the beginning of his vacation his average hourly wage for the number of working-days forming his vacation period.

In case of short-time work the compensation for each day of the vacation shall be computed as if the establishment had been operated on full time. Overtime hours shall, however, not be considered. The average hourly wage rate shall be computed on the basis of the total earnings of the last four weeks and the last week to be considered in this computation shall be at least one week previous to the beginning of the vacation.

If a part of these four weeks falls within an older wage agreement, the increase or decrease under the new wage agreement of the wage rate for the occupational group in question shall be added to or deducted from the earnings under the old wage agreement.

If an establishment is shut down for over one month, or operates on short time for over one month—on a basis of 24 hours or less per week—or operates only 3 days (of 8¼ hours) per week, figured from vacation to vacation, the claim to a vacation of the workers affected by the shutdown or short-time operation shall be diminished by one-twelfth of the vacation for each full month during which the establishment was shut down or operated on short time.

If there have been several periods of short-time operation or shutdowns, the calendar days shall be added and divided by 30, but periods of less than 14 days of short-time operation or shutdown shall be left out of consideration.

ART. 39. During his vacation a worker may not perform any work for pay. If he does so, he shall refund the pay granted him by his employer during the vacation and he shall also lose any claim to vacation during the next year.

ART. 40. If workers entitled to a vacation are dismissed, their employer shall compensate them for the lost vacation in an amount corresponding to their length of employment.

A worker who leaves of his own free will or is discharged for cause has no claim to vacation or to compensation for the lost vacation.

### VIII. CONCILIATION AND ARBITRATION OF LABOR DISPUTES

ART. 41. The settlement of disputes between the employer and individual workers or the whole working personnel of an establishment shall in the first place be attempted by the employer or his representative and the works council.

ART. 42. An arbitration board composed of an equal number of employers and workers who are parties to the present agreement and presided over by a nonpartisan chairman shall be established for each district, or, if necessary, for parts of a district. If the district managements can not agree on a chairman, the central organization shall decide what authorities shall appoint the nonpartisan chairman. The arbitration board shall exclusively be competent in all disputes relating to the application and enforcement of the present agreements in the establishments. The arbitration board may be invoked only after an attempt by the employer and the works council to settle the dispute has failed.

The district arbitration boards shall not be competent to interpret the principles involved in provisions of the present agreement.

If the arbitration board can not bring about conciliation of the dispute, it shall render a decision in the form of an award.

ART. 43. A superior arbitration board of equipartisan composition located in Berlin shall be established as the agency of second and final instance in the arbitration procedure. The superior arbitration board may also hold sessions outside of Berlin. It shall be composed of three representatives each of the employers and of the workers, who whenever this is possible shall not be changed during the period of the validity of a collective agreement. An alternate shall be appointed for the period of validity of the agreement for each representative on the superior arbitration board. The board shall be presided over by a nonpartisan chairman.

Appeals to the superior arbitration board must be made by the proper central organizations within two weeks after receipt of the award rendered by the district arbitration board which shall be transmitted to the interested parties by the district managements by registered letter. The appeal acts as a stay.

ART. 44. The activities of the district arbitration boards and of the superior arbitration board shall be governed by regulations drafted by the organizations interested.

ART. 45. The parties shall be represented before the above-named arbitration boards by the organizations interested. If the chairman of the works council or the shop steward or a worker of the establishment delegated by the works council or by the shop steward takes part in the session as representative of the worker, he shall be compensated in pursuance of articles 35 and 36 of the works council law.

ART. 46. Strikes or lockouts on account of disputes arising out of the employment relation, in so far as the latter is regulated by the present agreement, shall not take place before the arbitration boards have rendered an award.

ART. 47. The signatory organizations of the agreement shall energetically see to it that any award made by a conciliation board or the superior conciliation board is enforced.

### IX. HOME WORK

ART. 48. Piece rates for home workers shall be determined on the same basis as for workers working in the factory.

ART. 49. Only permanently employed home workers, i. e., only those home workers who for at least one year have delivered to the same establishment an output averaging 80 per cent of the output of the factory workers of the same occupational group, shall be entitled to vacation with pay.

ART. 50. Disputes relating to the wage and working conditions of home workers shall be settled by the same arbitration organs (see section VIII) which settle factory workers' disputes.

ART. 51. The provisions of this section are applicable to female home workers also.

### X. APPRENTICES

ART. 52. (a) After termination of the second year of their apprenticeship, apprentices shall be entitled to the wage rate of "other" workers corresponding to their age class.

(b) The right of apprentices to vacations shall be governed by the provisions of articles 35 to 40 (p. 141).

(c) Article 8 (d) (p. 136) shall be correspondingly applicable to apprentices.

In all other respects the apprenticeship conditions shall be regulated by the apprenticeship contract.

#### XI. GENERAL PROVISIONS

ART. 53. Persons employed at full time in an establishment shall not be permitted to perform work for pay outside of the establishment.

ART. 54. No worker may be discriminated against or dismissed for insisting on the enforcement of the present agreement nor on account of his activities as a member of the works council or of a wage committee.

#### XII. VALIDITY OF THE AGREEMENT

ART. 55. This agreement shall come into force on February 1, 1926, and shall be valid until January 31, 1927. If notice of the canceling of the agreement is not given by one of the contracting parties three months before its expiration, the agreement shall continue to be valid for a further period of three months, the term for giving notice remaining the same.

Notice of the canceling of the agreement shall be given by registered letter by the Employers' Association of the German Fine Ceramic Industry or by the Federation of Porcelain and Allied Workers of Germany and the Trade Federation of German Ceramic Workers.

#### DEFINITIONS

I. (To article 1.) It is agreed that the signatory workers' organizations shall be the sole representatives of the economic interests of those "salaried" employees who are members of these organizations. This representation of interests (of the salaried employees) shall, however, be effected outside of this agreement.<sup>2</sup>

The agreement shall not be applicable to establishments not connected with a fine ceramic establishment either as regards the nature of the manufacturing process or the location of the establishment.

II. (To article 38.) The words "figured from vacation to vacation" are to be understood to mean that the first day of the granted vacation in the current calendar year is to be used as basis for the computation. If the interval between the two dates exceeds 12 months, only the 12 months subsequent to the date of the beginning of the vacation in the preceding year shall be considered.

III. (To article 42.) It is agreed between the contracting parties that the interpretation of principles involved in the provisions of this collective agreement shall be effected through discussions between the central organizations. If these do not lead to an agreement, a decision shall be made by an arbitrator nominated by the contracting parties. If this decision is not accepted by all the parties, the superior arbitration board shall make a final decision.

It is further agreed that after the expiration of the agreement these arbitration bodies shall also render decisions on disputes which became pending during the validity of the agreement.

IV. (To article 45.) Provisions as to the bearing of the costs of the arbitration boards shall be incorporated in a new set of regulations for these boards which, if possible, shall come into force on March 1, 1926.

V. In view of the special conditions prevailing in the State porcelain factory at Berlin, it is agreed that the organizations shall conclude special agreements on the application and enforcement of the wage and working conditions regulated in the present agreement.

#### DECLARATION OF THE EMPLOYERS' ASSOCIATION ON THE CLOSED-SHOP QUESTION

On principle we can not accede to the demand of the workers' organizations for compulsory unionization.

We acknowledge, however, that in the interest of discipline and peaceful relations with the workers in the establishments, as well as in the interest of the ability of the labor organizations to conclude collective agreements and in the interest of the enforcement of our collective agreement, it is desirable that all the workers should be affiliated with the signatory organizations of our collective agreement.

<sup>2</sup> This agreement applies only to manual workers.

## Entrance Wage Rates for Common Labor, October, 1926

THE Bureau of Labor Statistics here presents, as of October 1, its fourth compilation for 1926 of common-labor wage rates per hour in various industries of the United States. The preceding compilations of this series appeared in the Labor Review for February, May, and September, 1926.

This study is confined to the rates paid newly employed unskilled adult males in important industries which require considerable numbers of common laborers. Some establishments have reported two rates—for example, one for a 10-hour day and one for an 8-hour day, or one for white and one for colored workers. These distinctions have not been maintained in the tabulated data, although it is apparent that the lowest rates shown are for those geographic divisions where there are large numbers of colored or Mexican workers, while the highest rates shown are for localities where an 8-hour day is more or less prevalent.

The number of common laborers reported for each of the several industries is shown in the following statement:

Automobiles.....	Number 6, 197
Brick, tile, and terra cotta.....	3, 512
Cement.....	1, 765
Electrical machinery, apparatus, and supplies.....	5, 035
Foundry and machine-shop products.....	9, 481
Iron and steel.....	23, 107
Leather.....	2, 111
Lumber (sawmills).....	12, 674
Paper and pulp.....	8, 092
Petroleum refining.....	3, 366
Slaughtering and meat packing.....	6, 209
Public utilities.....	15, 118
General contracting.....	39, 235
Total.....	135, 902

The number of common laborers reported for each geographic division was as follows: New England, 8,388; Middle Atlantic, 37,017; East North Central, 35,120; West North Central, 10,514; South Atlantic, 13,414; East South Central, 6,432; West South Central, 7,040; Mountain, 5,348; Pacific, 12,629.

The weighted average rate for the several industries combined is 43.4 cents, the lowest and highest rates reported being 15 cents and \$1.125, respectively. The highest average rate in any of the industries, 49.5 cents, appears in general contracting, and the lowest average rate, 33.4 cents, in sawmills.

The highest rates paid in most districts were reported by general contractors, and they considerably increase the average rate for the several industries combined. The October 1 average rate, 43.4 cents, is more than one-half cent higher than the average rate of July 1, which was 42.8 cents.

By omitting the figures for general contracting an average rate of 40.9 cents is obtained, which is the same as the average rate for the same industries on July 1. The corresponding average rates on April 1 and January 1 were 40.5 cents and 40.2 cents, respectively. It should be borne in mind in comparing these average rates that

the establishments reporting are not in every case identical in the four periods.

HOURLY WAGE RATES PAID FOR COMMON LABOR, OCTOBER 1, 1926

[The rates on which this table is based are entrance rates paid for adult male common labor]

Industry	United States	Geographic divisions								
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Automobiles:	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents
Low	33.3	40.0	40.0	35.0	33.3	-----	-----	-----	-----	40.0
High	62.5	62.5	62.5	62.5	62.5	-----	-----	-----	-----	55.0
Average	44.3	42.2	42.2	46.1	39.0	-----	-----	-----	-----	48.9
Brick, tile, and terra cotta:										
Low	17.5	38.5	35.0	32.5	27.0	17.5	17.5	22.3	40.0	39.0
High	55.6	50.0	55.6	46.7	40.0	35.0	36.5	37.5	40.0	52.5
Average	38.1	39.1	47.5	38.6	33.4	27.8	21.3	28.0	40.0	41.0
Cement:										
Low	25.0	-----	35.0	35.0	35.0	-----	26.0	25.0	-----	50.0
High	50.0	-----	45.0	44.0	37.5	-----	40.0	28.0	-----	50.0
Average	40.1	-----	43.9	42.8	35.3	-----	30.1	27.3	-----	50.0
Electrical machinery, apparatus, and supplies:										
Low	31.0	31.0	40.0	39.0	35.0	40.0	-----	-----	-----	-----
High	50.0	48.0	46.0	50.0	40.0	40.0	-----	-----	-----	-----
Average	45.2	44.2	41.5	48.0	37.5	40.0	-----	-----	-----	-----
Foundry and machine-shop products:										
Low	17.5	33.0	30.0	34.0	35.0	17.5	25.0	20.0	35.0	44.0
High	56.0	52.5	50.0	55.0	45.0	45.0	40.0	30.0	44.4	56.0
Average	38.9	40.5	40.6	42.7	39.7	28.4	29.9	25.2	38.1	50.1
Iron and steel:										
Low	22.0	40.0	30.0	35.0	35.0	22.0	23.5	-----	41.0	42.5
High	50.0	45.0	50.0	50.0	35.0	44.0	31.0	-----	49.0	50.0
Average	42.3	43.3	42.1	44.5	35.0	36.6	28.9	-----	48.9	45.9
Leather:										
Low	17.5	48.0	33.3	35.0	-----	17.5	33.0	-----	-----	44.0
High	50.0	48.0	50.0	50.0	-----	40.0	33.0	-----	-----	48.8
Average	38.8	48.0	38.9	43.1	-----	32.4	33.0	-----	-----	48.7
Lumber (sawmills):										
Low	15.0	33.0	30.0	30.0	32.5	15.0	16.5	20.0	25.0	29.0
High	62.5	40.0	40.0	62.5	35.0	35.0	25.0	33.0	45.0	50.0
Average	33.4	35.7	37.5	34.4	34.7	25.7	21.9	24.1	37.7	43.2
Paper and pulp:										
Low	22.5	33.3	35.0	30.0	35.0	30.0	22.5	25.0	-----	40.0
High	56.3	50.0	50.0	54.0	40.0	38.3	37.5	27.5	-----	56.3
Average	42.6	45.5	42.3	44.0	38.9	36.5	25.2	25.7	-----	42.8
Petroleum refining:										
Low	30.0	-----	37.0	50.0	50.0	30.0	-----	35.0	55.0	62.0
High	62.0	-----	53.0	50.0	50.0	50.0	-----	50.0	55.0	62.0
Average	48.4	-----	48.6	50.0	50.0	44.2	-----	42.3	55.0	62.0
Slaughtering and meat packing:										
Low	37.5	40.0	40.0	37.5	37.5	40.0	-----	37.5	40.0	40.0
High	50.0	50.0	45.0	45.0	45.0	40.0	-----	37.5	40.0	45.0
Average	41.9	43.8	44.1	41.6	42.1	40.0	-----	37.5	40.0	42.4
Public utilities: <sup>1</sup>										
Low	20.0	40.0	30.0	32.5	30.0	20.0	25.0	25.0	35.0	33.0
High	61.3	59.5	61.3	60.0	40.0	45.0	40.0	30.0	40.0	56.3
Average	41.7	49.5	44.5	48.5	36.2	35.0	30.4	29.0	37.6	47.6
General contracting: <sup>2</sup>										
Low	20.0	40.0	30.0	35.0	30.0	20.0	20.0	21.0	35.0	43.8
High	112.5	78.5	112.5	100.0	80.0	50.0	40.0	50.0	62.5	62.5
Average	49.5	56.7	58.7	56.3	42.0	34.9	29.3	34.7	47.4	51.0
Total:										
Low	15.0	31.0	30.0	30.0	27.0	15.0	16.5	20.0	25.0	29.0
High	112.5	78.5	112.5	100.0	80.0	50.0	40.0	50.0	62.5	62.5
Average	43.4	47.8	46.9	47.5	40.6	33.2	27.4	30.7	44.8	46.5

<sup>1</sup> Including street railways, gas works, waterworks, and electric power and light plants.

<sup>2</sup> Including building, highway, public works, and railroad construction.

## International Comparison of Real Wages

THE International Labor Office presents in the International Labor Review of October, 1926, a comparison of real wages in various large cities of the world as of July 1, 1926, in continuation of similar figures compiled periodically by that office.

The more significant points in this comparison are brought out in the table below. The figures given are in the form of index numbers, using London as the base or 100. In considering the figures presented it is very important to note that the wage data relate only to a very few categories of workers (building, engineering, furniture, and printing and publishing) and the price data are limited to certain articles of food and to rent. Thus, the index numbers can be taken only as a very rough indication of the relative levels of real wages of adult male workers in certain occupations and cities. In many instances, however, the figures shown indicate such wide differences between cities that they may be accepted as reflecting real differences in the level of well-being of the workers in different countries.

According to the table, Philadelphia had the highest real wage level of any of the 20 cities included, its index number, based on food only, being 167, or 67 per cent higher than London, which is used as the base. Ottawa, Canada, and Sydney, Australia, were next highest to Philadelphia, with Copenhagen the highest of the European cities. At the other extreme, cities like Rome, Italy, and Brussels, Belgium, have a wage level of less than one-fourth that of Philadelphia, and less than one-half that of London.

INDEX NUMBERS OF COMPARATIVE REAL WAGES IN VARIOUS CITIES, JULY 1, 1926

[London, July 1, 1926=100]

City	General average index numbers		City	General average index numbers	
	Based on food only	With allowance for rent		Based on food only	With allowance for rent
Amsterdam.....	91	91	Ottawa.....	150	148
Berlin.....	70	66	Philadelphia.....	167	167
Brussels <sup>1</sup> .....	41	44	Prague.....	50	54
Copenhagen.....	112	112	Riga.....	47	50
Dublin.....	99	108	Rome <sup>2</sup> .....	44	47
Lisbon <sup>2</sup> .....	35	-----	Stockholm <sup>3</sup> .....	88	86
Lodz.....	43	48	Sydney.....	131	131
London.....	100	100	Tallinn.....	41	42
Madrid.....	56	-----	Vienna.....	44	50
Milan <sup>2</sup> .....	47	49	Warsaw <sup>4</sup> .....	46	47

<sup>1</sup> The figures for Brussels are abnormally low; this is due to the fall in the value of the franc, to which wages and prices have not yet become adjusted.

<sup>2</sup> The figures for Lisbon, Milan, and Rome are relatively low. This may be accounted for in part by the differences in the items of food consumption in the southern European countries from those ordinarily consumed in most of the other countries included in the table.

<sup>3</sup> The figures are based on wages in the building, furniture-making, and printing industries only. For other cities the metal industry is also included.

<sup>4</sup> Based on a weighted average wage. For other cities an unweighted average wage has been used.

## Trend of Wages in Chile, 1917 to 1926

THE official bulletin of the Chilean Labor Department<sup>1</sup> shows the following average daily wages paid to workers in specified occupations during the years 1917 to 1926:

## AVERAGE DAILY WAGES IN SPECIFIED OCCUPATIONS IN CHILE, 1917 TO 1926, BY YEARS

[Peso at par=12.17 cents; exchange rate approximately at par]

Occupation	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926
	<i>Pesos</i>									
Melters.....	6.00	6.40	7.20	7.60	7.60	8.00	8.00	9.20	12.46	12.00
Melters, master.....	8.75	8.75	12.50	12.50	12.50	18.75	18.75	18.75	21.00	19.80
Boiler makers.....	5.60	5.60	5.60	6.40	6.40	7.20	7.20	8.00	13.20	14.68
Boiler makers, master.....	8.37	8.37	8.37	15.00	15.00	15.00	15.00	15.00	25.00	25.00
Mechanics.....	7.20	7.20	7.60	8.40	9.60	9.60	10.40	11.20	14.00	13.04
Mechanics, master.....	11.25	12.50	13.75	17.50	17.50	17.50	18.75	18.75	21.00	19.80
Carpenters.....	5.20	5.60	6.00	6.40	6.80	7.20	7.60	8.00	13.60	13.12
Smiths.....	8.00	9.60	9.60	9.60	10.00	10.40	10.80	11.60	13.90	13.24
Solderers.....	8.00	9.60	10.80	12.00	13.60	15.20	15.20	15.20	12.40	13.60

## Wages in Cartagena, Colombia

THE following table, taken from a consular report dated August 22, 1926, shows the number of workmen employed in the manufacturing industries in Cartagena, Colombia, and their daily wages and working hours in 1924.

## NUMBER OF WORKERS AND AVERAGE DAILY WAGES AND HOURS IN SPECIFIED INDUSTRIES IN CARTAGENA, 1924

Industry	Number of plants	Number of workers	Average daily wage	Hours of labor per day
Bakeries.....	84	275	\$1.20	12
Bottling works.....	2	15	1.00	8
Butter factories.....	14	25	.90	8
Candle factories, paraffin.....	1	20	1.20	8
Candle factories, tallow.....	33	118	.90	8
Cane mills.....	465	1,215	.60	10
Cheese factories.....	345	387	.90	12
Chocolate factories.....	2	35	1.20	8
Cigarette factories.....	2	32	1.50	8
Coffee (roasting) mills.....	11	39	1.00	10
Corn (grist) mills.....	3	60	1.50	8
Cotton gins.....	1	8	1.00	10
Cotton factories.....	3	221	1.00	8
Electric light plants.....	19	61	1.00	12
Flour mills.....	1	20	1.50	10
Hat factories.....	2	28	1.20	8
Ice factories.....	6	37	1.00	10
Match factories.....	1	10	1.00	8
Rice mills.....	1	22	1.00	10
Rum and alcohol works.....	25	89	1.00	12
Sawmills.....	33	69	1.20	8
Soap factories.....	60	218	1.00	10
Sugar refineries.....	1	1,132	1.20	10
Tanneries.....	45	152	1.00	10
Tobacco curing sheds.....	8	24	.90	10

<sup>1</sup> Chile. Direccion General del Trabajo. Boletin No. 24, Santiago, 1926, Anexo LI.

The report contains also figures showing the wages paid in different occupations in Cartagena, as shown by the following statement:

	Daily wages
Watchmen.....	\$1. 00-\$1. 35
Timekeepers.....	2. 25- 2. 75
Carpenters.....	2. 00- 2. 25
Carpenters' helpers.....	1. 50
Machinists.....	2. 00
Mechanics.....	2. 00
Mechanics' helpers.....	1. 50
Sailors.....	1. 35
Pay-roll men.....	2. 75
Launch men.....	2. 50
Cooks, first class.....	2. 50
Cooks, second class.....	2. 00
Gardeners.....	1. 25
Common laborers.....	1. 20
Domestics.....	1. 00
Clerks in stores.....	<sup>1</sup> 60. 00
Office clerks.....	<sup>1</sup> 75. 00
School teachers.....	<sup>1</sup> 35. 00

### Wage Rates in Hamburg, Germany

WAGE rates prevailing in various occupations in Hamburg, Germany, in September, 1926, are given as follows in a report of United States Consuls Thomas H. Bevan and Walter A. Foote, dated October 1-16, 1926:

#### WAGE RATES IN HAMBURG, GERMANY, IN SEPTEMBER, 1926

[German mark at par=23.8 cents]

Occupation	Unit of time	Rate	Occupation	Unit of time	Rate
		<i>Marks</i>			<i>Marks</i>
Locksmiths.....	Hour..	0. 98	Painters.....	Hour..	1. 25
Plumbers and mechanics.....	do..	1. 28	Printers.....	Week..	48. 00
Electricians.....	do..	1. 03	Bakers.....	do..	48. 00
Coppersmiths.....	do..	1. 02	Chemical industry.....	Hour..	. 79
Spinning and textile industry.....	do..	. 70	Draymen.....	Week..	46. 00
Upholsterers.....	do..	1. 17	Unskilled workers, metal and machine industry.....	Hour..	. 59
Cabinetmakers.....	do..	1. 03			7. 20
Tailors.....	do..	. 98	Longshoremen.....	Day..	8. 28
Shoemakers.....	do..	. 87			8. 64
Masons.....	do..	1. 28	Coal handlers.....	do..	7. 92
Joiners.....	do..	1. 30			

### Working Hours in Portuguese Government Offices<sup>2</sup>

ON AUGUST 14, 1926, the Portuguese Government issued a decree (No. 12118) requiring all Government offices to remain open from 11 a. m. to 5 p. m. It specifies that all Government employees must be on duty during these hours and that an employee who, without permission, does not report for duty until after 11.15 a. m. will be considered absent and will have his pay docked accordingly.

<sup>1</sup> Per month.

<sup>2</sup> Report from the American consul general, W. Stanley Hollis, at Lisbon, dated Aug. 25, 1926.

## TREND OF EMPLOYMENT

### Employment in Selected Industries in October, 1926

EMPLOYMENT in manufacturing industries advanced 0.3 per cent in October as compared with September and pay-roll totals increased 3.7 per cent, according to returns made to the Bureau of Labor Statistics by 10,323 establishments. These establishments in October employed 3,112,689 wage earners, whose combined earnings in one week were \$84,673,846.

These employees represent 46 per cent of the wage earners in the 54 industries surveyed and 35 per cent of the wage earners in all manufacturing industries of the United States.

Also, employment in October was 0.2 per cent greater than in the same month of 1925 and pay-roll totals were 2.5 per cent greater. This completes the tenth month of 1926, in which a gain over the corresponding month of 1925 has been shown both in employment and in pay-roll totals.

The Bureau of Labor Statistics' weighted index of employment for October is 92.5, as compared with 92.2 for September, 1926, and 92.3 for October, 1925; the index of pay-roll totals for October is 98.6, as compared with 95.1 for September, 1926, and 96.2 for October, 1925.

#### Comparison of Employment and Pay-Roll Totals in September and October, 1926

THIRTY of the 54 separate industries made employment gains in October, more than one-half of the gains being 2.5 per cent or over. Confectionery gained 9.2 per cent; woolen and worsted goods, 5.9 per cent; stoves, 4 per cent; furniture, 3.6 per cent; electrical goods, 3.4 per cent; and knit goods, shirts, and paper boxes, 3.1 per cent each. The increases in employment were largely seasonal, as were the greater part of the decreases. The most pronounced decreases were: 11.2 per cent in the carriage industry; 7.7 per cent in ice cream; 4 per cent in brick; and 3.8 per cent in automobiles.

Employees' earnings showed a decided improvement in 42 industries, the increases in 29 of these industries ranging from 13 per cent in woolen and worsted goods to 3.5 per cent in both brass products and structural ironwork. Among these industries showing the larger pay-roll gains were: Confectionery, shirts, knit goods, women's clothing, silk goods, cotton goods, iron and steel, machine tools, stoves, steam-railroad car building and repairing, agricultural implements, chemicals, pottery, glass, electrical goods, and steel ship-building. Automobiles and sugar, both of which industries fell off as to employment, also showed increased pay-roll totals. Automobile tires with a decrease in employment of 1.9 per cent showed a drop of 4.4 per cent in pay-roll totals.

The textile, tobacco, and food groups of industries each show considerable gains both in employment and employees' earnings, while the iron and steel, vehicle, lumber, chemical, and stone, clay and glass groups fell off as to employment but show decided increases in employees' earnings.

Employment conditions in the New England States were much improved in October and slightly better in the Middle Atlantic, South Atlantic, West North Central, and Pacific geographical divisions. There were small decreases in the remaining four divisions, while each of the nine divisions shows a pronounced improvement in the earnings of employees.

For convenient reference the latest figures available relating to all employees, excluding executives and officials, on Class I railroads, drawn from Interstate Commerce Commission reports, are given at the foot of Table 1 and Table 3.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK EACH IN SEPTEMBER AND OCTOBER, 1926

Industry	Estab-lish-ments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		Septem-ber, 1926	October, 1926		Septem-ber, 1926	October, 1926	
<b>Food and kindred products</b> .....	<b>1,492</b>	<b>219,629</b>	<b>223,830</b>	(1)	<b>\$5,603,698</b>	<b>\$5,694,283</b>	(1)
Slaughtering and meat pack- ing.....	196	86,744	87,661	+1.1	2,275,472	2,266,812	-0.4
Confectionery.....	258	35,881	39,186	+9.2	644,104	718,833	+11.6
Ice cream.....	202	9,702	8,954	-7.7	325,064	301,375	-7.3
Flour.....	338	16,470	16,550	+0.5	431,922	444,792	+3.0
Baking.....	493	60,145	61,146	+1.7	1,617,556	1,641,102	+1.5
Sugar refining, cane.....	15	10,687	10,333	-3.3	309,490	321,369	+3.8
<b>Textiles and their products</b> .....	<b>1,820</b>	<b>575,891</b>	<b>591,401</b>	(1)	<b>11,076,689</b>	<b>11,748,295</b>	(1)
Cotton goods.....	466	219,585	225,850	+2.9	3,431,206	3,593,262	+4.7
Hosiery and knit goods.....	246	79,777	82,246	+3.1	1,451,045	1,592,279	+9.7
Silk goods.....	201	56,848	58,287	+2.5	1,197,401	1,289,229	+7.7
Woolen and worsted goods.....	196	61,885	65,511	+5.9	1,350,002	1,526,885	+13.1
Carpets and rugs.....	31	23,039	23,729	+3.0	605,865	628,926	+3.8
Dyeing and finishing textiles.....	87	28,643	29,133	+1.7	690,348	723,193	+4.8
Clothing, men's.....	270	59,776	59,563	-0.4	1,411,234	1,397,139	-1.0
Shirts and collars.....	82	19,653	20,265	+3.1	302,420	333,775	+10.4
Clothing, women's.....	174	16,353	16,742	+2.4	397,288	431,985	+8.7
Millinery and lace goods.....	67	10,332	10,975	+6.2	239,880	231,622	-3.4
<b>Iron and steel and their prod- ucts</b> .....	<b>1,844</b>	<b>712,723</b>	<b>709,153</b>	(1)	<b>26,793,555</b>	<b>21,599,272</b>	(1)
Iron and steel.....	216	288,661	288,030	-0.2	8,720,041	9,108,170	+4.5
Cast-iron pipe.....	46	15,372	15,009	-2.4	363,423	358,485	-1.4
Structural ironwork.....	155	25,509	24,972	-2.1	707,818	732,795	+3.5
Foundry and machine-shop products.....	998	256,886	254,457	-0.9	7,446,403	7,631,585	+2.5
Hardware.....	65	34,842	34,728	-0.3	866,514	894,638	+3.2
Machine tools.....	166	31,950	32,397	+1.4	932,690	1,008,180	+4.7
Steam fittings and steam and hot-water heating appa- ratus.....	117	42,718	42,099	-1.4	1,253,221	1,257,371	+0.3
Stoves.....	91	16,785	17,461	+4.0	473,445	518,048	+9.4
<b>Lumber and its products</b> .....	<b>1,084</b>	<b>221,542</b>	<b>221,397</b>	(1)	<b>4,920,304</b>	<b>5,038,805</b>	(1)
Lumber, sawmills.....	460	128,830	126,630	-1.7	2,653,898	2,690,101	+0.2
Lumber, millwork.....	246	32,161	32,021	-0.4	791,378	807,465	+2.0
Furniture.....	378	60,551	62,746	+3.6	1,475,028	1,571,239	+6.5
<b>Leather and its products</b> .....	<b>362</b>	<b>128,230</b>	<b>127,827</b>	(1)	<b>3,041,443</b>	<b>3,039,358</b>	(1)
Leather.....	140	29,669	29,617	-0.2	746,909	763,471	+2.2
Boots and shoes.....	222	98,561	98,210	-0.4	2,294,534	2,275,887	-0.8
<b>Paper and printing</b> .....	<b>912</b>	<b>174,519</b>	<b>176,574</b>	(1)	<b>5,564,642</b>	<b>5,736,286</b>	(1)
Paper and pulp.....	216	57,961	58,150	+3.0	1,536,165	1,579,434	+2.8
Paper boxes.....	179	20,003	20,620	+3.1	437,376	473,613	+8.3
Printing, book and job.....	303	47,319	47,359	+0.1	1,619,507	1,634,884	+0.9
Printing, newspapers.....	214	49,236	50,445	+2.5	1,971,594	2,048,355	+3.9

Footnotes at end of table.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK EACH IN SEPTEMBER AND OCTOBER, 1926—Continued

Industry	Estab-lish-ments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		Septem-ber, 1926	October, 1926		Septem-ber, 1926	October, 1926	
<b>Chemicals and allied products</b> .....	<b>288</b>	<b>92,880</b>	<b>92,895</b>	(1)	<b>\$2,691,903</b>	<b>\$2,729,196</b>	(1)
Chemicals.....	122	30,060	30,381	+1.1	792,856	844,585	+6.5
Fertilizers.....	110	9,508	9,189	-3.4	188,310	176,290	-6.4
Petroleum refining.....	56	53,312	53,325	+(?)	1,710,757	1,708,321	-0.1
<b>Stone, clay, and glass products</b> .....	<b>691</b>	<b>118,095</b>	<b>116,712</b>	(1)	<b>3,072,462</b>	<b>3,148,463</b>	(1)
Cement.....	95	27,146	26,763	-1.4	811,656	810,802	-0.1
Brick, tile, and terra cotta.....	417	36,986	35,513	-4.0	936,324	925,112	-1.2
Pottery.....	59	13,520	13,373	-1.1	341,302	363,183	+6.4
Glass.....	120	40,443	41,063	+1.5	983,180	1,049,366	+6.7
<b>Metal products, other than iron and steel</b> .....	<b>215</b>	<b>51,596</b>	<b>51,919</b>	(1)	<b>1,350,782</b>	<b>1,420,103</b>	(1)
Stamped and enameled ware.....	68	19,639	20,225	+3.0	471,828	509,996	+8.1
Brass, bronze, and copper products.....	147	31,957	31,694	-0.8	878,954	910,107	+3.5
<b>Tobacco products</b> .....	<b>198</b>	<b>44,154</b>	<b>45,275</b>	(1)	<b>801,613</b>	<b>834,921</b>	(1)
Chewing and smoking tobacco and snuff.....	30	8,651	8,766	+1.3	136,495	139,888	+2.5
Cigars and cigarettes.....	168	35,503	36,509	+2.8	665,118	695,033	+4.5
<b>Vehicles for land transportation</b> .....	<b>1,006</b>	<b>597,576</b>	<b>492,691</b>	(1)	<b>15,674,539</b>	<b>16,059,286</b>	(1)
Automobiles.....	203	335,952	323,247	-3.8	10,804,473	10,974,408	+1.6
Carriages and wagons.....	64	2,306	2,048	-11.2	56,345	45,607	-9.4
Car building and repairing, electric-railroad.....	245	18,990	19,087	+0.5	569,461	573,116	+0.6
Car building and repairing, steam-railroad.....	494	150,328	148,309	-1.3	4,250,260	4,466,155	+5.1
<b>Miscellaneous industries</b> .....	<b>411</b>	<b>259,213</b>	<b>263,015</b>	(1)	<b>7,370,322</b>	<b>7,715,578</b>	(1)
Agricultural implements.....	93	26,287	26,263	-0.1	698,784	732,914	+4.9
Electrical machinery, apparatus and supplies.....	168	121,798	125,982	+3.4	3,402,678	3,678,829	+8.1
Pianos and organs.....	40	8,351	8,589	+2.9	252,744	274,923	+8.8
Rubber boots and shoes.....	10	16,961	17,123	+1.0	393,388	414,782	+5.4
Automobile tires.....	60	57,704	56,615	-1.9	1,820,173	1,739,942	-4.4
Shipbuilding, steel.....	40	28,112	28,438	+1.2	802,555	874,188	+8.9
<b>All industries</b> .....	<b>10,323</b>	<b>3,106,048</b>	<b>3,112,689</b>	(1)	<b>81,961,862</b>	<b>84,673,846</b>	(1)

## Recapitulation by Geographic Divisions

GEOGRAPHIC DIVISIONS							
New England.....	1,327	425,648	432,349	+1.6	\$10,263,797	\$10,557,446	+2.9
Middle Atlantic.....	2,470	868,518	875,393	+0.8	24,462,716	25,177,071	+2.9
East North Central.....	2,733	1,025,234	1,017,043	-0.8	30,030,786	31,245,939	+4.0
West North Central.....	1,001	163,562	164,394	+0.5	4,104,837	4,227,645	+3.0
South Atlantic.....	1,088	278,084	280,182	+0.8	5,185,213	5,347,733	+3.1
East South Central.....	464	112,219	110,857	-1.2	2,143,302	2,186,979	+2.0
West South Central.....	460	92,977	92,658	-0.3	1,936,447	1,969,298	+1.7
Mountain.....	172	27,364	27,192	-0.6	728,541	743,591	+2.1
Pacific.....	608	112,442	112,621	+0.2	3,106,223	3,218,144	+3.6
<b>All divisions</b> .....	<b>10,323</b>	<b>3,106,048</b>	<b>3,112,689</b>	(1)	<b>81,961,862</b>	<b>84,673,846</b>	(1)

## Employment on Class I Railroads

Aug. 15, 1926.....	1,836,171	-----	<sup>3</sup> \$249,227,175	-----
Sept. 15, 1926.....	1,838,304	+0.1	<sup>3</sup> 246,732,747	-1.0

<sup>1</sup> The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

<sup>2</sup> Less than one-tenth of 1 per cent.

<sup>3</sup> Amount of pay roll for 1 month.

TABLE 2.—PER CENT OF CHANGE, SEPTEMBER TO OCTOBER, 1926, IN 12 GROUPS OF INDUSTRIES AND TOTAL OF ALL INDUSTRIES

[Computed from the index numbers of each group, which are obtained by weighting the index numbers of the several industries of the group, by the number of employees, or wages paid, in the industries]

Group	Per cent of change, September to October, 1926		Group	Per cent of change, September to October, 1926	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products.....	+2.1	+1.7	Metal products, other than iron and steel.....	+0.3	+4.7
Textiles and their products.....	+2.6	+6.3	Tobacco products.....	+2.6	+4.3
Iron and steel and their products.....	-0.4	+3.5	Vehicles for land transportation.....	-2.5	+3.2
Lumber and its products.....	-0.3	+1.8	Miscellaneous industries.....	+1.1	+6.0
Leather and its products.....	-0.4	( <sup>1</sup> )	All industries.....	+0.3	+3.7
Paper and printing.....	+1.3	+3.1			
Chemicals and allied products.....	-0.1	+2.0			
Stone, clay, and glass products.....	-1.2	+2.9			

<sup>1</sup> No change.

### Comparison of Employment and Pay-Roll Totals in October, 1926, and October, 1925

EMPLOYMENT in October, 1926, was 0.2 per cent greater than in October, 1925, and pay-roll totals were 2.5 per cent greater, 24 of the 54 industries showing increased employment and 31 industries increased pay-roll totals.

The outstanding gains over the 12-month period were in metal industries: Iron and steel, structural ironwork, foundry and machine-shop products, machine tools, electrical machinery, and steel ship-building.

Notable decreases in employment in this comparison with October, 1925, are shown in all the textile industries except cotton goods (which shows a small increase), automobiles, hardware, steam fittings, sawmills and millwork, cement, stamped ware, cigars, and carriages and wagons.

The iron and steel, paper and printing, chemical, stone, clay, and glass, and miscellaneous industry groups show improved conditions as compared with October, 1925, both in employment and employees' earnings. The food and leather groups show slightly fewer employees and slightly increased pay-roll totals, while the remaining groups show decreases in both items, the decreases in the tobacco and vehicle groups being marked.

Employment conditions were decidedly better in October, as compared with the corresponding month of 1925, in the South Atlantic and West South Central geographical divisions and moderately improved in the Mountain and Middle Atlantic divisions. On the other hand, conditions in the East South Central and East North Central States were considerably less satisfactory than a year ago.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS—OCTOBER, 1926, WITH OCTOBER, 1925

[The per cents of change for each of the 12 groups of industries, and for the total of all industries, are weighted in the same manner as are the per cents of change in Table 2]

Industry	Per cent of change, October, 1926, compared with October, 1925		Industry	Per cent of change, October, 1926, compared with October, 1925	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
<b>Food and kindred products</b>	-0.5	+0.4	<b>Paper and printing—Con.</b>		
Slaughtering and meat packing	-1.4	-1.2	Printing, book and job	+4.4	+6.8
Confectionery	+3.1	+5.9	Printing, newspapers	+5.5	+6.7
Ice cream	-3.0	+2.8	<b>Chemicals and allied products</b>		
Flour	-1.8	-1.8	Chemicals	+2.2	+4.8
Baking	(1)	+0.9	Fertilizers	+2.3	+7.8
Sugar refining, cane	-7.7	-0.7	Petroleum refining	-2.2	+3.8
				+4.4	+1.7
<b>Textiles and their products</b>	-3.5	-2.4	<b>Stone, clay, and glass products</b>		
Cotton goods	+0.4	+2.4	Cement	+1.9	+1.9
Hosiery and knit goods	-3.1	+1.3	Brick, tile, and terra cotta	-4.5	-3.2
Silk goods	-6.8	-4.6	Pottery	+2.4	+2.5
Woolen and worsted goods	-3.1	+3.8	Glass	-0.2	+1.5
Carpets and rugs	-4.1	-2.4		+4.0	+3.4
Dyeing and finishing textiles	-3.1	-4.7	<b>Metal products, other than iron and steel</b>		
Clothing, men's	-4.0	-3.4	Stamped and enameled ware	-2.3	-1.2
Shirts and collars	-5.5	-6.0	Brass, bronze, and copper products	-5.2	-9.0
Clothing, women's	-6.5	-12.1		-1.0	+1.6
Millinery and lace goods	-15.2	-12.6	<b>Tobacco products</b>		
<b>Iron and steel and their products</b>	+5.9	+7.6	Chewing and smoking tobacco and snuff	-8.2	-6.2
Iron and steel	+4.5	+7.6	Cigars and cigarettes	+1.0	+1.8
Cast-iron pipe	+3.3	-1.8		-9.4	-7.1
Structural ironwork	+8.4	+9.6	<b>Vehicles for land transportation</b>		
Foundry and machine-shop products	+6.8	+9.3	Automobiles	-5.9	-5.3
Hardware	-6.0	-1.1	Carriages and wagons	-12.9	-15.1
Machine tools	+10.7	+11.9	Car building and repairing, electric-railroad	-15.4	-11.8
Steam fittings and steam and hot-water heating apparatus	-6.4	-4.8	Car building and repairing, steam-railroad	-1.0	-2.1
Stoves	+1.2	(1)		+1.0	+4.8
<b>Lumber and its products</b>	-3.0	-0.4	<b>Miscellaneous industries</b>		
Lumber, sawmills	-4.0	-0.8	Agricultural implements	+9.4	+13.0
Lumber, millwork	-6.6	-6.1	Electrical machinery, apparatus, and supplies	-2.0	-2.9
Furniture	+2.5	+4.5	Pianos and organs	+8.6	+9.5
<b>Leather and its products</b>	-1.2	+1.7	Rubber boots and shoes	-1.5	+2.4
Leather	+1.4	+3.1	Automobile tires	+4.2	+2.1
Boots and shoes	-1.9	+1.1	Shipbuilding, steel	+3.2	+9.0
<b>Paper and printing</b>	+3.4	+5.7		+16.6	+20.1
Paper and pulp	+1.4	+3.4	<b>All industries</b>	+0.2	+2.5
Paper boxes	(1)	+5.9			

Recapitulation by Geographic Divisions

GEOGRAPHIC DIVISIONS			GEOGRAPHIC DIVISIONS—contd.		
New England	-1.0	-0.3	East South Central	-5.9	-4.5
Middle Atlantic	+0.1	+3.2	West South Central	+2.0	+4.2
East North Central	-2.5	-2.6	Mountain	+1.0	+3.5
West North Central	-0.1	+0.3	Pacific	-0.4	+2.6
South Atlantic	+3.7	+6.5	<b>All divisions</b>	+0.2	+2.5

Employment on Class I Railroads

Month and year	Number on pay roll	Per cent of change	Amount of pay roll	Per cent of change
September 15, 1925	1,787,024		\$236,973,787	
September 15, 1926	1,838,304	+2.9	\$246,732,747	+4.1

<sup>1</sup> No change.

<sup>2</sup> Amount of pay roll for 1 month.

## Per Capita Earnings

THE greatly augmented earnings of employees in October are clearly shown by the following statement of changes in per capita earnings. Forty-six of the 54 industries show increases as compared with September and 43 industries as compared with October, 1925.

In the monthly comparison steel shipbuilding leads with a gain of 7.7 per cent. Woolen and worsted goods employees were earning 6.9 per cent more, automobile employees, 5.6 per cent more, iron and steel employees, 4.7 per cent more, and cotton goods employees, 1.8 per cent more. In the 8 industries showing decreased per capita earnings the one decrease which was not seasonal was one of 2.6 per cent in the automobile tire industry.

In the yearly comparison the most pronounced gains were among cane-sugar refining employees and woolen and worsted goods employees, 7.7 per cent and 7 per cent, respectively, while the outstanding losses were 5.9 per cent in the women's clothing industry and 5 per cent in the cast-iron pipe industry.

TABLE 4.—COMPARISON OF PER CAPITA EARNINGS, OCTOBER, 1926, WITH SEPTEMBER, 1926, AND OCTOBER, 1925

Industry	Per cent of change October, 1926, compared with—		Industry	Per cent of change October, 1926, compared with—	
	Sep- tem- ber, 1926	Oc- tober, 1925		Sep- tem- ber, 1926	Oc- tober, 1925
Shipbuilding, steel.....	+7.7	+2.9	Furniture.....	+2.8	+1.7
Pottery.....	+7.6	+1.3	Flour.....	+2.5	+0.1
Sugar refining, cane.....	+7.4	+7.7	Lumber, millwork.....	+2.5	+0.4
Shirts and collars.....	+7.0	-0.8	Paper and pulp.....	+2.5	+1.6
Woolen and worsted goods.....	+6.9	+7.0	Leather.....	+2.4	+1.5
Car building and repairing, steam- railroad.....	+6.5	+3.3	Confectionery.....	+2.2	+2.6
Hosiery and knit goods.....	+6.4	+4.8	Carriages and wagons.....	+2.0	+4.4
Clothing, women's.....	+6.2	-5.9	Lumber, sawmills.....	+2.0	+3.3
Pianos and organs.....	+5.7	+3.6	Cotton goods.....	+1.8	+1.6
Structural ironwork.....	+5.7	+1.0	Steam fittings and steam and hot- water heating apparatus.....	+1.8	+2.1
Automobiles.....	+5.6	-2.7	Cigars and cigarettes.....	+1.7	+2.1
Chemicals.....	+5.4	+5.3	Printing, newspapers.....	+1.4	+1.5
Stoves.....	+5.2	-1.1	Cement.....	+1.3	+1.3
Glass.....	+5.1	-0.6	Chewing and smoking tobacco and snuff.....	+1.1	+0.6
Agricultural implements.....	+5.0	+0.8	Cast-iron pipe.....	+1.0	-5.0
Paper boxes.....	+5.0	-5.8	Carpets and rugs.....	+0.8	+0.6
Silk goods.....	+5.0	+2.2	Printing, book and job.....	+0.8	+2.5
Stamped and enameled ware.....	+5.0	-3.8	Ice cream.....	+0.5	+6.0
Iron and steel.....	+4.7	+3.0	Car building and repairing, elec- tric-railroad.....	+0.1	-1.0
Electrical machinery, apparatus, and supplies.....	+4.5	+1.0	Baking.....	-0.2	+1.0
Brass, bronze, and copper prod- ucts.....	+4.4	+2.9	Petroleum refining.....	-0.2	-5.4
Rubber boots and shoes.....	+4.4	-2.0	Boots and shoes.....	-0.5	+3.1
Hardware.....	+3.6	+5.1	Clothing, men's.....	-0.6	+0.7
Foundry and machine-shop prod- ucts.....	+3.4	+2.5	Millinery and lace goods.....	-1.0	+3.3
Machine tools.....	+3.3	+1.2	Slaughtering and meat packing.....	-1.4	-0.4
Dyeing and finishing textiles.....	+3.0	-1.9	Automobile tires.....	-2.6	+5.8
Brick, tile, and terra cotta.....	+2.9	+0.3	Fertilizers.....	-3.2	+6.0

## Wage Changes

EIGHTY-ONE establishments in 24 industries reported wage-rate increases for the month ending October 15. These increases, averaging 4.5 per cent, affected 7,422 employees, or 28 per cent of the total number of employees in the establishments concerned. Twenty-two of the 81 establishments reporting wage-rate increases were in the two printing industries.

Wage-rate decreases were reported by only four establishments—two each in the ice cream and cast-iron pipe industries.

TABLE 5.—WAGE ADJUSTMENT OCCURRING BETWEEN SEPTEMBER 15 AND OCTOBER 15, 1926

Industry	Establishments		Per cent of increase or decrease in wage rates		Employees affected		
	Total number reporting	Number reporting increase or decrease in wage rates	Range	Average	Total number	Per cent of employees—	
						In establishments reporting increase or decrease in wage rates	In all establishments reporting
			Increases				
Slaughtering and meat packing.....	196	4	1 - 9.5	4.0	267	13	( <sup>1</sup> )
Confectionery.....	258	4	5 -35	15.3	230	39	1
Silk goods.....	201	1	9	9.0	47	9	( <sup>1</sup> )
Woolen and worsted goods.....	196	1	5	5.0	54	22	( <sup>1</sup> )
Clothing, women's.....	174	1	5	5.0	30	16	( <sup>1</sup> )
Iron and steel.....	216	2	6	6.0	30	5	( <sup>1</sup> )
Structural ironwork.....	155	1	7.6	7.6	2	6	( <sup>1</sup> )
Machine tools.....	156	2	7 - 9.6	8.8	24	12	( <sup>1</sup> )
Steam fittings and steam and hot-water heating apparatus.....	117	2	8 -10	8.2	72	11	( <sup>1</sup> )
Lumber, sawmills.....	460	2	5 -20	12.0	190	14	( <sup>1</sup> )
Lumber, millwork.....	246	3	7 -12.5	9.1	29	13	( <sup>1</sup> )
Furniture.....	378	8	5 -15	6.4	216	13	( <sup>1</sup> )
Paper boxes.....	179	2	10 -25	21.6	22	9	( <sup>1</sup> )
Printing, book and job.....	303	17	1.7-10	2.9	2,182	37	
Printing, newspapers.....	214	5	2.2-10.7	3.0	272	24	1
Chemicals.....	122	2	5 -10	9.2	160	8	1
Stamped and enameled ware.....	68	3	2 - 9.6	3.9	80	15	( <sup>1</sup> )
Brass, bronze, and copper products.....	147	3	8	8.0	36	20	( <sup>1</sup> )
Cigars and cigarettes.....	168	1	16.7	16.7	12	100	( <sup>1</sup> )
Automobiles.....	203	2	5 - 7	6.8	243	16	( <sup>1</sup> )
Car building and repairing, electric-railroad.....	245	1	1.8	1.8	93	87	( <sup>1</sup> )
Car building and repairing, steam-railroad.....	494	9	0.6- 5	3.5	3,041	79	2
Agricultural implements.....	93	2	2.5- 9	7.6	14	7	( <sup>1</sup> )
Electrical machinery, apparatus, and supplies.....	168	3	1 - 8.2	3.0	76	4	( <sup>1</sup> )
			Decreases				
Ice cream.....	202	2	10 -14	10.5	8	7	( <sup>1</sup> )
Cast-iron pipe.....	46	2	25	25.0	100	17	1

<sup>1</sup> Less than one-half of 1 per cent.

## Indexes of Employment and Pay-Roll Totals in Manufacturing Industries

INDEX numbers for October, 1926, and for September, 1926, and October, 1925, showing relatively the variation in number of persons employed and in pay-roll totals in each of the 54 industries surveyed by the Bureau of Labor Statistics, together with general indexes for the combined 12 groups of industries, appear in Table 6, following.

The general index of employment in October, 1926, is 92.5, this number being 0.3 per cent higher than the index for September, 1926, and 0.2 per cent higher than the index for October, 1925. The general index of pay-roll totals for October, 1926, is 98.6, this number being 3.7 per cent higher than the index for September, 1926, and 2.5 per cent higher than the index for October, 1925.

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—OCTOBER, 1925, AND SEPTEMBER AND OCTOBER, 1926

[Monthly average, 1923=100]

Industry	Employment			Pay-roll totals		
	October, 1925	September, 1926	October, 1926	October, 1925	September, 1926	October, 1926
<b>General index</b> .....	<b>92.3</b>	<b>92.2</b>	<b>92.5</b>	<b>96.2</b>	<b>95.1</b>	<b>98.6</b>
<b>Food and kindred products</b> .....	<b>94.8</b>	<b>92.4</b>	<b>94.3</b>	<b>97.5</b>	<b>96.3</b>	<b>97.9</b>
Slaughtering and meat packing.....	83.8	81.7	82.6	86.9	86.2	85.9
Confectionery.....	99.9	94.3	103.0	105.9	100.5	112.2
Ice cream.....	96.3	101.2	93.4	100.4	111.3	103.2
Flour.....	94.7	92.5	93.0	100.2	95.6	98.4
Baking.....	104.2	102.5	104.2	107.7	107.1	108.7
Sugar refining, cane.....	95.7	91.3	88.3	94.4	90.2	93.7
<b>Textiles and their products</b> .....	<b>89.5</b>	<b>84.2</b>	<b>86.4</b>	<b>90.3</b>	<b>82.9</b>	<b>88.1</b>
Cotton goods.....	83.1	81.0	83.4	79.9	78.1	81.8
Hosiery and knit goods.....	101.1	95.0	98.0	112.2	103.7	113.7
Silk goods.....	107.6	97.9	100.3	116.1	102.9	110.8
Woolen and worsted goods.....	87.3	79.9	84.6	84.0	77.1	87.2
Carpets and rugs.....	91.2	85.0	87.5	88.9	83.6	86.8
Dyeing and finishing textiles.....	100.7	96.0	97.6	107.9	98.1	102.8
Clothing, men's.....	87.6	84.4	84.1	79.6	77.6	76.9
Shirts and collars.....	87.6	80.3	82.8	90.5	77.1	85.1
Clothing, women's.....	84.4	77.0	78.9	95.3	77.1	83.8
Millinery and lace goods.....	78.5	68.3	66.6	79.3	71.8	69.3
<b>Iron and steel and their products</b> .....	<b>87.8</b>	<b>92.6</b>	<b>92.2</b>	<b>92.4</b>	<b>96.0</b>	<b>99.4</b>
Iron and steel.....	93.9	98.2	98.1	99.1	102.0	106.6
Cast-iron pipe.....	103.3	109.4	106.7	109.4	108.9	107.4
Structural ironwork.....	95.1	105.3	103.1	102.6	108.6	112.4
Foundry and machine-shop products.....	80.9	87.2	86.4	82.8	88.3	90.5
Hardware.....	91.7	86.4	86.2	99.3	95.1	98.2
Machine tools.....	93.7	102.3	103.7	103.9	111.1	116.3
Steam fittings and steam and hot-water heating apparatus.....	102.4	97.2	95.8	108.3	102.8	103.1
Stoves.....	90.7	88.3	91.8	98.7	90.2	98.7
<b>Lumber and its products</b> .....	<b>94.3</b>	<b>91.8</b>	<b>91.5</b>	<b>102.4</b>	<b>100.2</b>	<b>102.0</b>
Lumber, sawmills.....	90.4	88.3	86.8	98.3	97.3	97.5
Lumber, millwork.....	104.0	97.4	97.1	112.3	103.4	105.5
Furniture.....	101.8	100.6	104.3	110.1	108.0	115.1
<b>Leather and its products</b> .....	<b>94.6</b>	<b>93.9</b>	<b>93.5</b>	<b>92.0</b>	<b>93.6</b>	<b>93.6</b>
Leather.....	90.8	92.3	92.1	93.1	94.0	96.0
Boots and shoes.....	95.8	94.4	94.0	91.6	93.4	92.6
<b>Paper and printing</b> .....	<b>101.9</b>	<b>104.0</b>	<b>105.4</b>	<b>108.0</b>	<b>110.8</b>	<b>114.2</b>
Paper and pulp.....	94.9	95.9	96.2	101.1	101.6	104.5
Paper boxes.....	105.6	102.4	105.6	111.6	109.2	118.2
Printing, book and job.....	100.6	104.9	105.0	107.4	113.7	114.7
Printing, newspapers.....	108.3	111.5	114.3	114.1	117.2	121.8

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—OCTOBER, 1925, AND SEPTEMBER AND OCTOBER, 1926—Con.

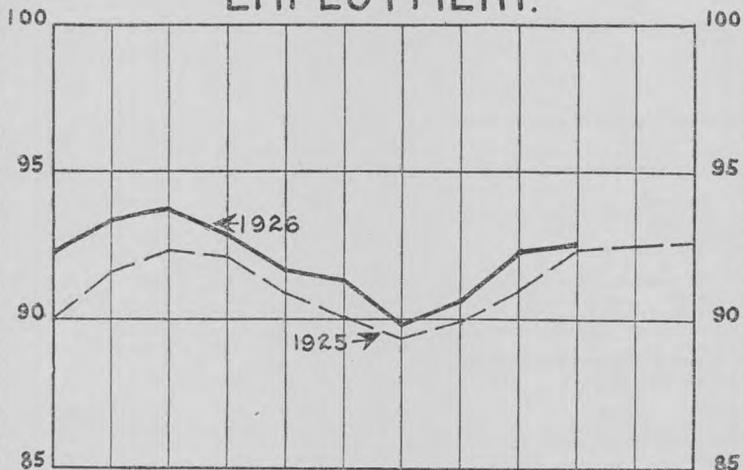
[Monthly average, 1923=100]

Industry	Employment			Pay-roll totals		
	October, 1925	September, 1926	October, 1926	October, 1925	September, 1926	October, 1926
<b>Chemicals and allied products</b> .....	<b>98.0</b>	<b>100.3</b>	<b>100.2</b>	<b>99.8</b>	<b>102.5</b>	<b>104.6</b>
Chemicals.....	94.7	95.9	96.9	100.1	101.3	107.9
Fertilizers.....	107.3	108.6	104.9	105.5	117.0	109.5
Petroleum refining.....	98.4	102.7	102.7	98.0	99.8	99.7
<b>Stone, clay, and glass products</b> .....	<b>100.5</b>	<b>103.6</b>	<b>102.4</b>	<b>109.1</b>	<b>108.1</b>	<b>111.2</b>
Cement.....	90.8	96.6	95.3	106.3	103.0	102.9
Brick, tile, and terra cotta.....	100.7	107.4	103.1	106.8	110.9	109.5
Pottery.....	107.2	108.6	107.4	120.1	114.6	121.9
Glass.....	98.1	100.5	102.0	108.5	105.2	112.2
<b>Metal products, other than iron and steel</b> .....	<b>98.3</b>	<b>95.7</b>	<b>96.0</b>	<b>99.2</b>	<b>93.6</b>	<b>98.0</b>
Stamped and enameled ware.....	99.1	91.2	93.9	101.5	85.5	92.4
Brass, bronze, and copper products.....	98.0	97.8	97.0	98.4	96.6	100.0
<b>Tobacco products</b> .....	<b>95.1</b>	<b>85.1</b>	<b>87.3</b>	<b>99.0</b>	<b>89.1</b>	<b>92.9</b>
Chewing and smoking tobacco and snuff.....	93.8	93.5	94.7	99.8	99.1	101.6
Cigars and cigarettes.....	95.3	84.0	86.3	98.9	87.9	91.9
<b>Vehicles for land transportation</b> .....	<b>94.6</b>	<b>91.3</b>	<b>89.0</b>	<b>99.5</b>	<b>91.3</b>	<b>94.2</b>
Automobiles.....	119.3	108.0	103.9	130.7	109.3	111.0
Carriages and wagons.....	109.1	103.9	92.3	106.2	103.4	93.7
Car building and repairing, electric-railroad.....	89.1	87.8	88.2	90.8	88.3	88.9
Car building and repairing, steam-railroad.....	78.6	80.5	79.4	79.9	79.6	83.7
<b>Miscellaneous industries</b> .....	<b>89.2</b>	<b>86.4</b>	<b>97.5</b>	<b>93.2</b>	<b>99.3</b>	<b>105.3</b>
Agricultural implements.....	95.0	93.2	93.1	106.5	98.6	103.4
Electrical machinery, apparatus, and supplies.....	94.6	99.4	102.7	98.9	100.2	108.3
Pianos and organs.....	98.6	94.4	97.1	113.0	106.3	115.7
Rubber boots and shoes.....	80.8	83.4	84.2	90.4	87.6	92.3
Automobile tires.....	109.2	114.9	112.7	107.2	122.2	116.8
Shipbuilding, steel.....	78.1	90.1	91.1	84.1	92.7	101.0

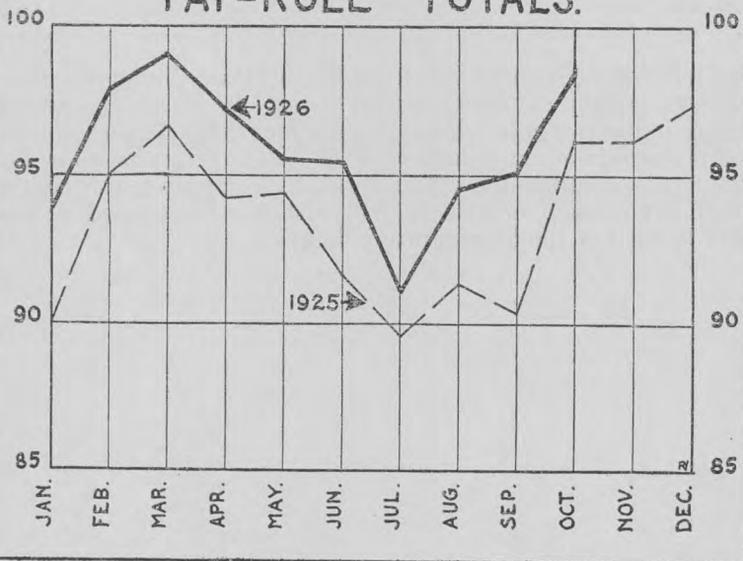
The following graph of index numbers clearly indicates the improvement, both in employment and in employees' earnings, in manufacturing industries as a whole, in each month of 1926 as compared with the corresponding month of 1925. Following this showing for all industries combined are small graphs comparing the course of employment in each month of 1926 with the corresponding month of 1925 in each of the 54 separate industries.

MANUFACTURING INDUSTRIES.  
 MONTHLY INDEXES — 1925 & 1926.  
 MONTHLY AVERAGE 1923 = 100.

EMPLOYMENT.



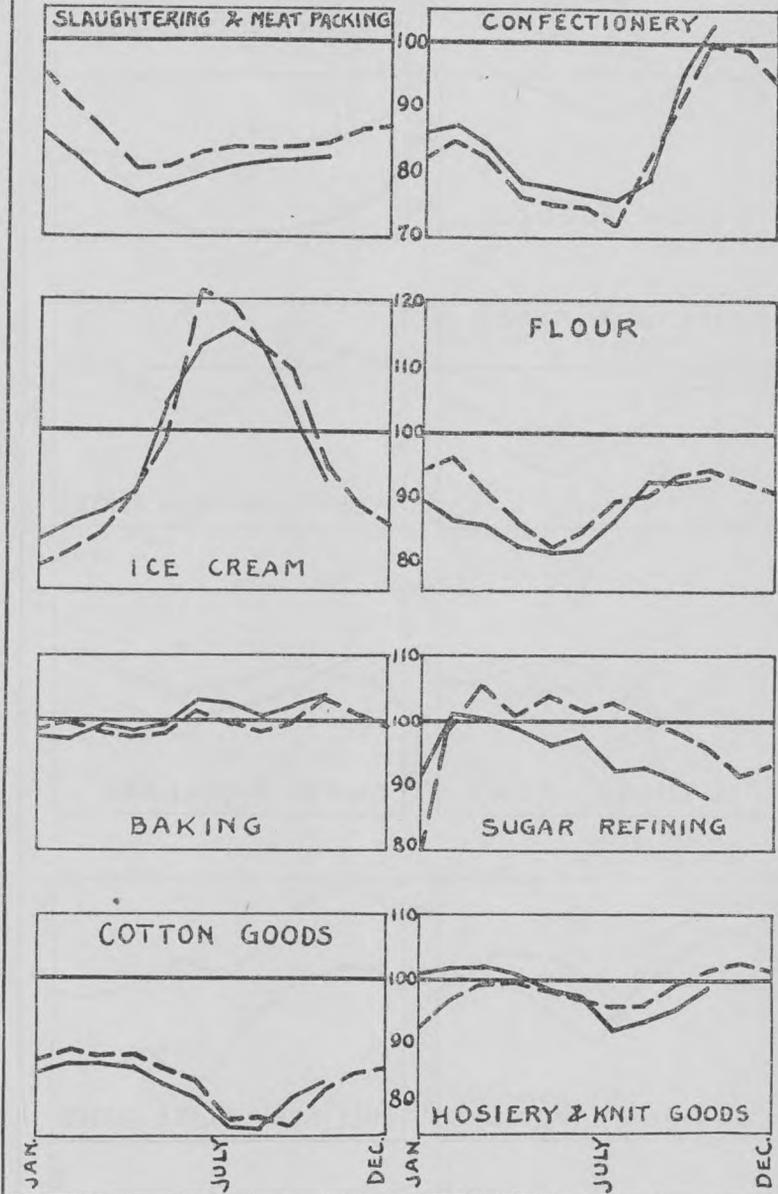
PAY-ROLL TOTALS.



# TREND OF EMPLOYMENT

1925 ----- 1926 \_\_\_\_\_

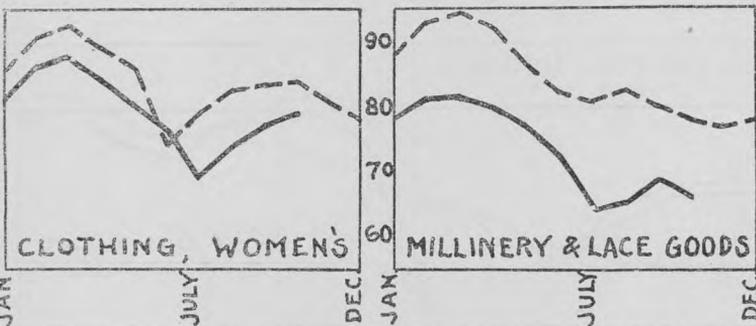
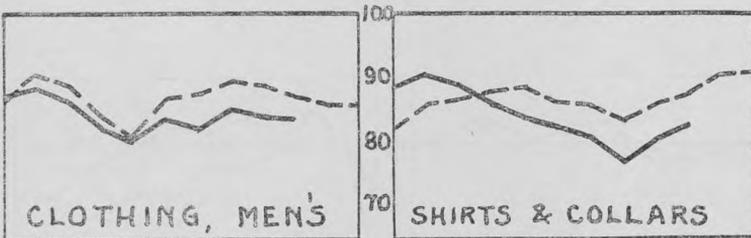
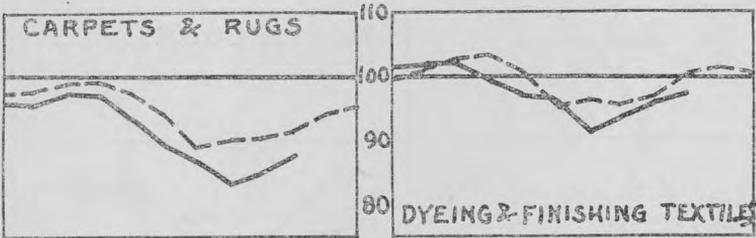
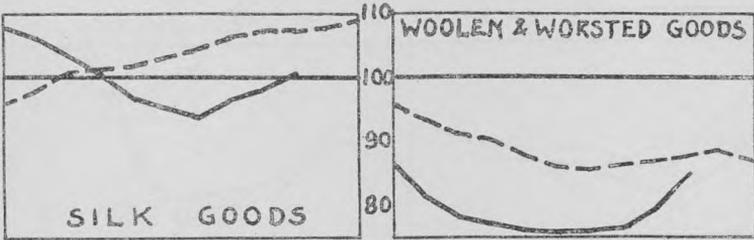
MONTHLY AVERAGE 1923 = 100



# TREND OF EMPLOYMENT.

1925 ----- 1926 \_\_\_\_\_

MONTHLY AVERAGE 1923 = 100.

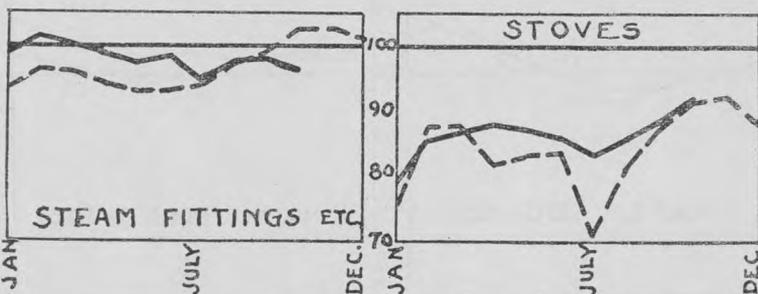
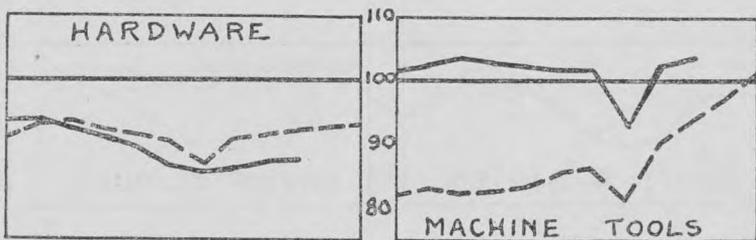
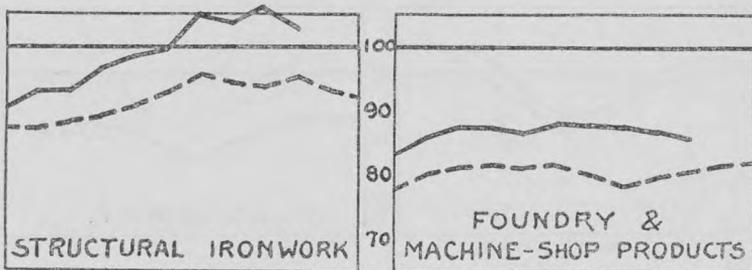
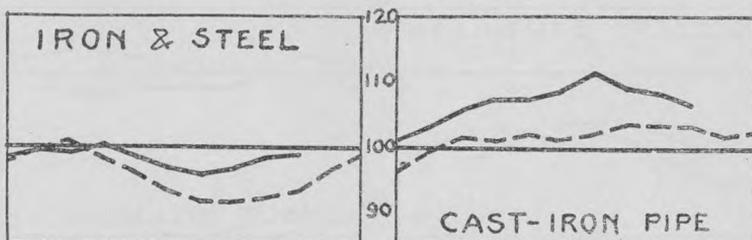


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# TREND OF EMPLOYMENT.

1925 ----- 1926 \_\_\_\_\_

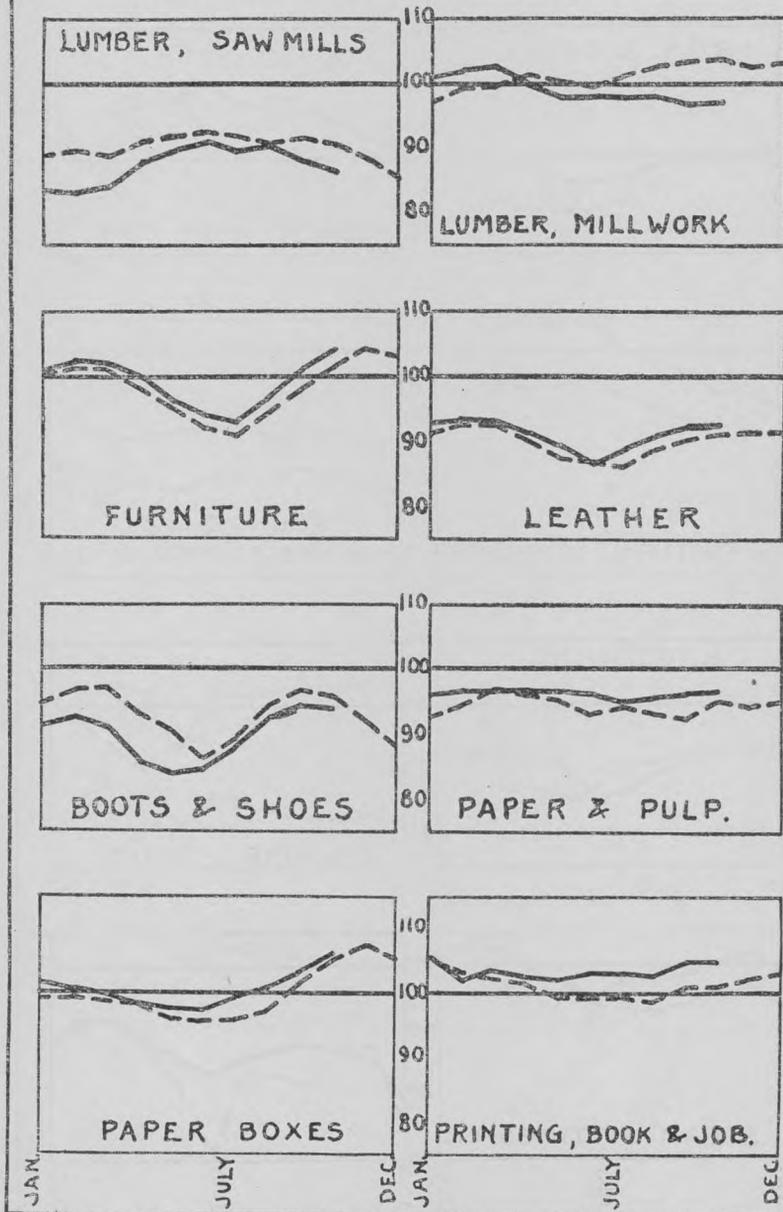
MONTHLY AVERAGE 1923=100.

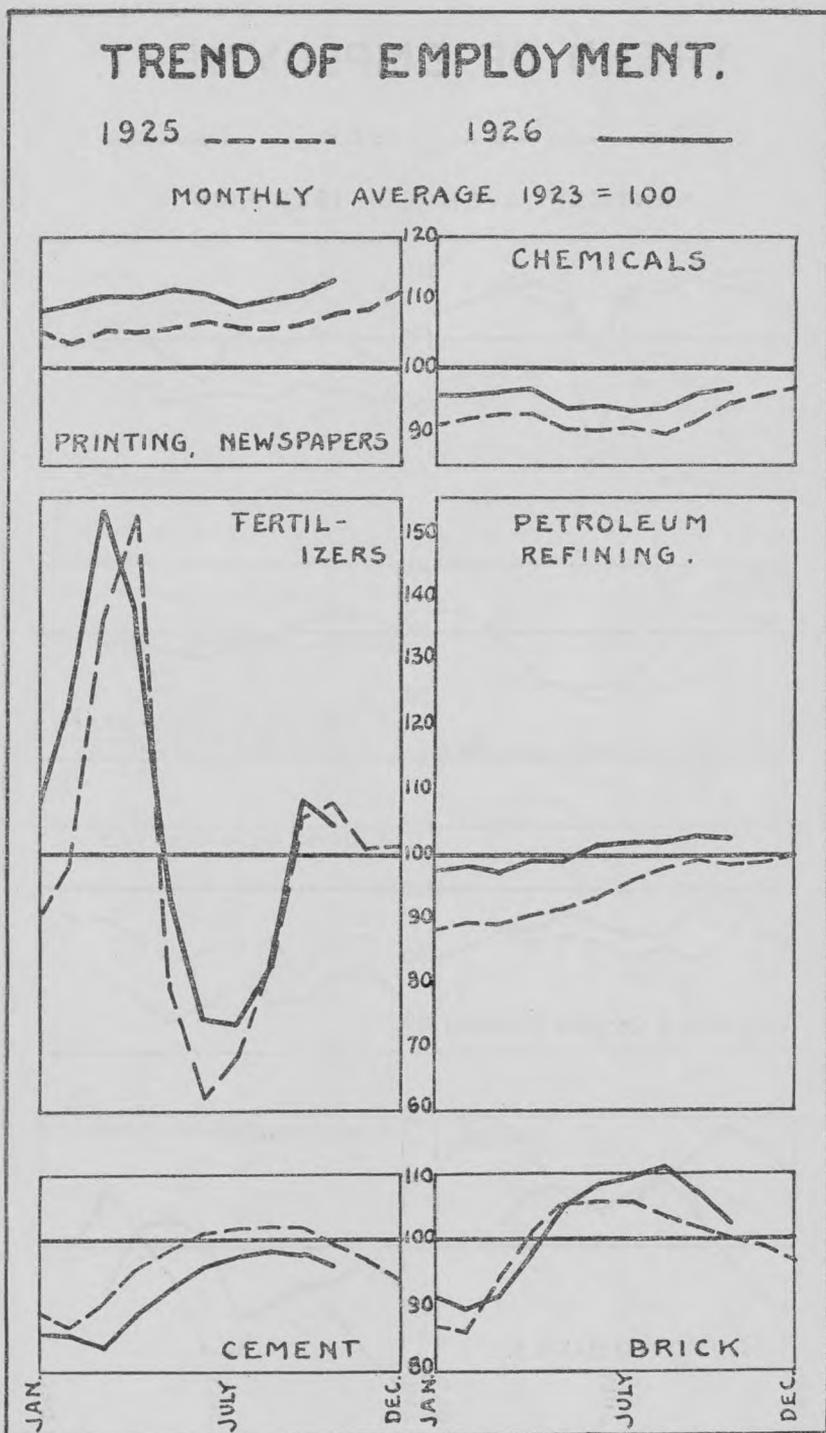


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MONTHLY AVERAGE 1923 = 100.

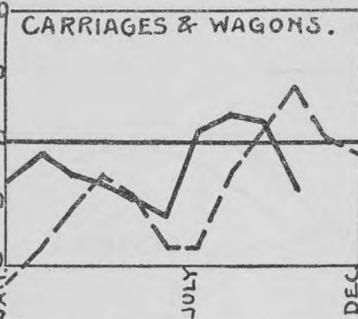
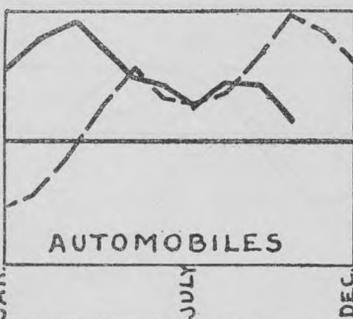
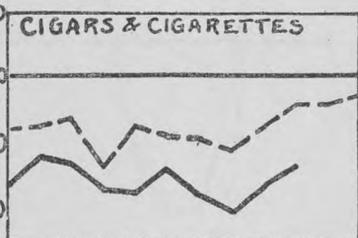
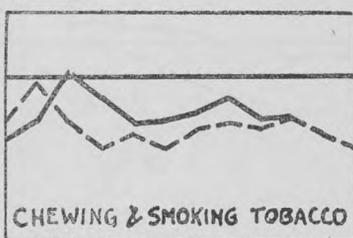
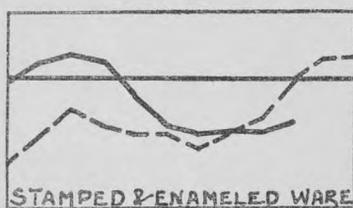
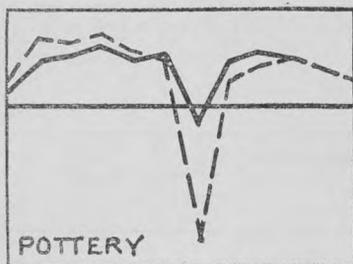




# TREND OF EMPLOYMENT.

1925 ----- 1926 \_\_\_\_\_

MONTHLY AVERAGE 1923 = 100



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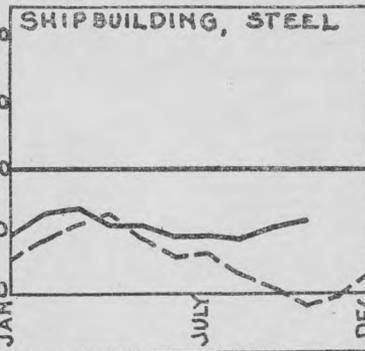
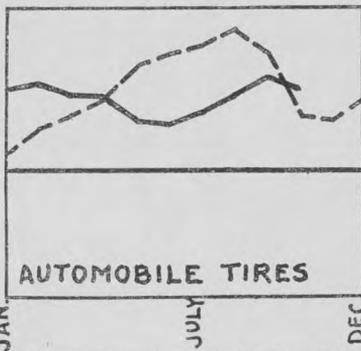
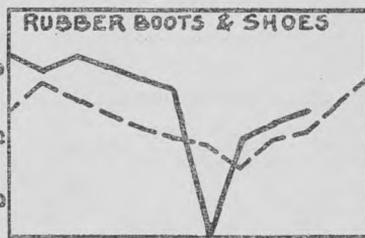
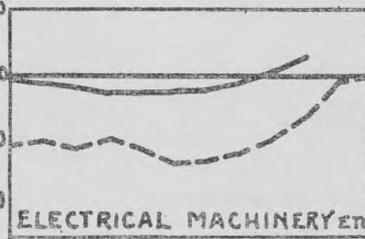
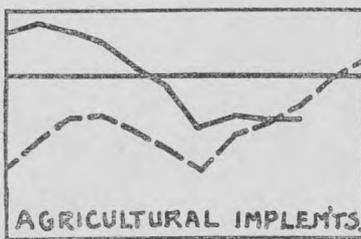
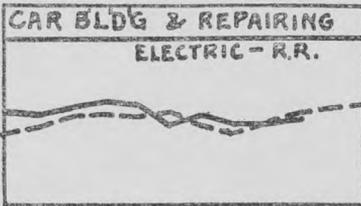
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# TREND OF EMPLOYMENT.

1925 ----- 1926 \_\_\_\_\_

MONTHLY AVERAGE 1923 = 100.



### Proportion of Time Worked and Force Employed in Manufacturing Industries in October, 1926

REPORTS from 7,663 establishments in October showed 1 per cent idle, 86 per cent operating on a full-time schedule, and 14 per cent on a part-time schedule; 46 per cent had a full normal force of employees and 54 per cent were operating with a reduced force.

The establishments in operation were employing an average of 88 per cent of a full normal force of employees, who were working an average of 98 per cent of full time.

TABLE 7.—ESTABLISHMENTS WORKING FULL AND PART TIME AND EMPLOYING FULL AND PART WORKING FORCE IN OCTOBER, 1926

Industry	Establishments reporting		Per cent of establishments operating—		Average per cent of full time operated in establishments operating	Per cent of establishments operating with—		Average per cent of normal full force employed by establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
<b>Food and kindred products</b> .....	<b>1,234</b>		<b>89</b>	<b>11</b>	<b>99</b>	<b>54</b>	<b>46</b>	<b>92</b>
Slaughtering and meat packing.....	152		88	12	99	55	45	93
Confectionery.....	223		94	6	100	44	56	92
Ice cream.....	150		97	3	100	9	91	74
Flour.....	292		75	25	96	70	30	94
Baking.....	406		95	5	99	64	36	96
Sugar refining, cane.....	11		100		103	55	45	85
<b>Textiles and their products</b> .....	<b>1,264</b>	<b>2</b>	<b>82</b>	<b>16</b>	<b>98</b>	<b>50</b>	<b>49</b>	<b>89</b>
Cotton goods.....	387	1	80	20	97	64	35	92
Hosiery and knit goods.....	148	1	79	20	98	50	49	88
Silk goods.....	146	1	90	9	100	38	60	88
Woolen and worsted goods.....	174	1	85	14	98	43	56	87
Carpets and rugs.....	20		85	15	99	45	55	84
Dyeing and finishing textiles.....	80		69	31	99	44	56	90
Clothing, men's.....	146	1	86	13	98	44	55	86
Shirts and collars.....	40		98	3	100	60	40	91
Clothing, women's.....	86	12	79	9	100	45	43	91
Millinery and lace goods.....	37		78	22	92	16	84	69
<b>Iron and steel and their products</b> .....	<b>1,332</b>	<sup>(1)</sup>	<b>83</b>	<b>17</b>	<b>97</b>	<b>32</b>	<b>68</b>	<b>82</b>
Iron and steel.....	172	2	82	16	96	26	73	88
Cast-iron pipe.....	44		55	45	87	43	57	90
Structural ironwork.....	100		96	4	100	47	53	88
Foundry and machine-shop products.....	713	<sup>(1)</sup>	81	19	98	31	69	79
Hardware.....	50		84	16	98	22	78	83
Machine tools.....	105		94	6	99	18	82	72
Steam fittings and steam and hot-water heating apparatus.....	82		88	12	99	45	55	90
Stoves.....	67	1	72	27	94	42	57	86
<b>Lumber and its products</b> .....	<b>898</b>	<b>1</b>	<b>88</b>	<b>11</b>	<b>99</b>	<b>43</b>	<b>56</b>	<b>89</b>
Lumber, sawmills.....	396	3	90	7	99	39	58	87
Lumber, millwork.....	191	1	84	15	98	35	64	88
Furniture.....	311		88	12	99	52	48	92
<b>Leather and its products</b> .....	<b>278</b>	<sup>(1)</sup>	<b>83</b>	<b>16</b>	<b>96</b>	<b>38</b>	<b>62</b>	<b>91</b>
Leather.....	108		96	4	99	39	61	87
Boots and shoes.....	170	1	75	24	93	38	62	93
<b>Paper and printing</b> .....	<b>594</b>		<b>93</b>	<b>7</b>	<b>99</b>	<b>76</b>	<b>30</b>	<b>95</b>
Paper and pulp.....	138		89	11	97	57	43	94
Paper boxes.....	129		93	7	99	64	36	94
Printing, book and job.....	192		91	9	99	63	38	93
Printing, newspapers.....	135		100		100	98	2	100

<sup>1</sup>Less than one-half of 1 per cent.

TABLE 7.—ESTABLISHMENTS WORKING FULL AND PART TIME AND EMPLOYING FULL AND PART WORKING FORCE IN OCTOBER, 1926—Continued

Industry	Establishments reporting		Per cent of establishments operating—		Average per cent of full time operated in establishments operating	Per cent of establishments operating with—		Average per cent of normal full force employed by establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
<b>Chemicals and allied products</b> .....	<b>235</b>		<b>86</b>	<b>14</b>	<b>99</b>	<b>46</b>	<b>54</b>	<b>82</b>
Chemicals.....	91		92	8	99	64	36	83
Fertilizers.....	101		75	25	97	24	76	66
Petroleum refining.....	43		100		100	58	42	95
<b>Stone, clay, and glass products</b> ....	<b>547</b>	<b>3</b>	<b>85</b>	<b>12</b>	<b>97</b>	<b>34</b>	<b>63</b>	<b>87</b>
Cement.....	75		99	1	100	33	67	92
Brick, tile, and terra cotta.....	327	3	81	16	95	30	67	84
Pottery.....	45		83	17	98	42	58	94
Glass.....	100	6	87	7	99	44	50	90
<b>Metal products, other than iron and steel</b> .....	<b>160</b>		<b>84</b>	<b>16</b>	<b>98</b>	<b>34</b>	<b>66</b>	<b>82</b>
Stamped and enameled ware.....	43		84	16	98	30	70	82
Brass, bronze, and copper products.....	117		84	16	98	36	64	82
<b>Tobacco products</b> .....	<b>108</b>		<b>59</b>	<b>41</b>	<b>97</b>	<b>29</b>	<b>71</b>	<b>90</b>
Chewing and smoking tobacco and snuff.....	19		58	42	96	37	63	88
Cigars and cigarettes.....	89		60	40	97	27	73	91
<b>Vehicles for land transportation</b> .....	<b>707</b>		<b>89</b>	<b>11</b>	<b>98</b>	<b>51</b>	<b>49</b>	<b>88</b>
Automobiles.....	151		72	28	94	31	69	83
Carriages and wagons.....	56		80	20	96	30	70	77
Car building and repairing, electric-railroad.....	199		98	2	100	68	32	97
Car building and repairing, steam-railroad.....	301		93	7	100	54	46	88
<b>Miscellaneous industries</b> .....	<b>305</b>	( <sup>1</sup> )	<b>84</b>	<b>15</b>	<b>98</b>	<b>42</b>	<b>58</b>	<b>87</b>
Agricultural implements.....	68	1	76	22	98	26	72	83
Electrical machinery, apparatus, and supplies.....	129		92	8	100	57	43	92
Pianos and organs.....	28		89	11	98	64	36	94
Rubber boots and shoes.....	6		83	17	97	50	50	100
Automobile tires.....	48		63	38	92	25	75	86
Shipbuilding, steel.....	26		100		100	15	85	66
<b>All industries</b> .....	<b>7,663</b>	<b>1</b>	<b>86</b>	<b>14</b>	<b>98</b>	<b>48</b>	<b>54</b>	<b>88</b>

<sup>1</sup> Less than one-half of 1 per cent.

## Changes in Employment Since 1914

ONE of the features of the census of manufactures of the United States is a statement of the number of persons in employment each month of the census year. From these figures one may follow the trend of employment during the year reported and compare the amount of employment as between census years.

Prior to 1899 the census of manufactures was taken for only one year in every ten years, and that year might be one of prosperity or of depression; it might or might not be representative of the decade. Further, as the census covers the operation of a full year, the enumeration can not be started until the year is ended. Considerable time is necessary to take the census and to compile the data, hence, when finally published, the census figures are historical rather than current.

The necessity for more frequent figures relating to the manufacturing industries of the country was recognized when in 1904 a fifth-year census of manufactures was started. Even this five-year interval was recognized as too long and in 1921 the manufacturing census was made biennial. There is strong argument for taking this census annually. A census of manufactures is but a business statement of the industries of the nation. Every manufacturing company prepares a statement at least once a year, generally at more frequent intervals, so there is good reason for a compilation of national figures annually. The business of the country was booming during the earlier part of 1920, yet there is no census record of this and complete figures for the trend of employment through 1920, therefore, are forever lost. The year 1921, a census year, was one of depression. There are no census figures for the upswing year of 1922, hence no complete figures as to manufacturing employment in that year.

Massachusetts prepares a yearly census of manufactures and collects monthly figures of employment as a part thereof. Like the Federal census figures, however, the Massachusetts census figures are of necessity historical, not current. Thus while census reports show the trend in employment as of the past, they fail to speak as of the present. The State of New York as early as 1914 recognized the need of statistics that would show the current trend of employment and started the monthly collection, from representative manufacturing establishments, of reports showing the number of employees and the amount of pay roll. This collection has ever since been continued. The United States Bureau of Labor Statistics started a like work late in 1915 and this inquiry has been continued monthly and has in the meantime been greatly enlarged in scope and volume, so that the volume of data now collected by the Bureau of Labor Statistics is believed to be large enough fully to represent the trend of employment in the United States. Wisconsin has similar figures extending back to 1915. In more recent years other States—such as Illinois, Maryland, New York, Massachusetts, Pennsylvania, Iowa, California, Oklahoma, and New Jersey—have begun the collection of monthly current employment data. The Bureau of Labor Statistics has cooperative arrangements with most of these States whereby the States collect the data on their own account and furnish this bureau with such data as it desires. This avoids a duplication of requests made to manufacturers. The fact that so

many States, as well as the Federal Government, are collecting employment data indicates the keen interest of the public in such up-to-date information.

As before stated, the Massachusetts employment data cover all establishments operating in the State each year. As new establishments come into existence in Massachusetts they are included in the census figures, and establishments going out of existence are dropped from the totals. In this way, any effects that changes of population in the State or in the United States may have on employment in Massachusetts are incorporated into the census figures for the State. In this respect the figures of this State differ from the other index numbers of employment. The Bureau of Labor Statistics, the New York, and the Wisconsin employment index numbers show only the changes in employment that occur in specific establishments. Normally, as the country grows in population new industries come into existence and new establishments are opened up in the older industries, and these all enter into exhaustive indexes like those for Massachusetts and any that might be computed from the United States census, but the opening of new industries and new establishments does not of necessity influence the employment index numbers published by the Bureau of Labor Statistics, by New York, or by Wisconsin.

As population increases, more and more goods must be manufactured, and this increase in production may come about in two ways—by the creation of new plants and by increased production in old-established plants. The index numbers of the Bureau of Labor Statistics, New York, and Wisconsin, reflect the second but not the first of these methods of increase, for their indexes are based on definite establishments. They reflect perfectly what takes place in these selected establishments. If these establishments increase their working force by 10 per cent, then the index numbers are increased by 10 per cent. On the other hand, if the number of employees in the entire country or State increased 10 per cent because of the building of new plants, but the plants reporting to the several offices have no increase in the number of their employees, then the index number shows no change. These figures may not therefore represent the growth of industry shown by the opening of new plants.

When the scope of the survey is enlarged through enlisting the cooperation of a greater number of correspondents these are drawn from plants in operation without regard to the length of time they have been in existence. The greater the number of establishments reporting, of course, the more accurately the trend is measured, but the inclusion of another plant does not affect the index number previously established, nor does it affect the index thereafter except to the extent of changes in its working force. It may not affect the trend at all, and will not if it fluctuates as do the other plants. Thus, if the reporting firms of an industry report 100,000 employees in January and 100,000 in February, and the index in January is 98, then the index in February is 98. If at this time additional plants are brought into the study and all plants covered report 150,000 workers in February and 150,000 again in March, there is no change in the ratio of employees and hence no change in the index number. The index number for March is 98 as it was in January and February.

The point to be made is that the index numbers speak only for what takes place in the reporting plants. The employment figures published by the Bureau of Labor Statistics, New York and Wisconsin, and other States, drawn from a sample of representative plants only, can not be used as an accurate measure of change in the volume of employment in *all* establishments in the country or in a State as is or would be shown by a complete census. Also, they do not measure absolutely the change in the volume of employment for a fixed population. However, as between the two, they probably come much nearer the latter function and for all practical purposes and over a short period, these index numbers are believed fairly to represent the upward and downward trend of employment in a fixed population.

The following table and chart show for the period June, 1914, to September, 1926, the index numbers of employment of New York, Massachusetts, Wisconsin, and the Bureau of Labor Statistics. The chart contains additional features, one of which is the growth of population of the United States as estimated for July 1 each year by the Bureau of the Census. The chart also shows the relative number of persons employed each month in all manufacturing industries of the United States in the four census years, 1914, 1919, 1921, and 1923.

A study of the trend of employment leads to consideration of collateral factors that have their influence on employment. Many improvements have been made in manufacturing establishments in recent years, leading to greater productivity per employee, but this is, in a measure offset by reductions in working hours per day and per week. This intermittent curve is based on the average of 1914 as 100 and is represented in the chart by a line of dots and dashes.

The index for employment data as reported by New York, Massachusetts and the Bureau of Labor Statistics in the last half of 1914 fell rather below that computed from the census figures for the entire United States, and as would be expected, all of the employment-index curves fell materially below actual employment in all manufacturing industries in the United States in 1919, 1921, and 1923. Thus, while employment curves reflect the trend of employment, they do not reflect the full extent of the trend.

An examination of the chart shows how far the sample method of the Bureau of Labor Statistics, of New York, and of Wisconsin, falls short of representing the total employment in manufacturing industries in the United States as shown by the census of manufactures though the State figures may fairly represent their respective States. There is, however, nothing to indicate that the trend of employment is essentially different in this marginal group that lies between the census level and the Bureau of Labor Statistics level. As has been stated, the Massachusetts figures are all comprehensive for manufacturing in that State, just as the census figures are comprehensive for the United States. The index number for this State is computed from the Massachusetts census figures to the end of 1924; beginning with January, 1925, the index is computed from monthly reports received by the State from representative establishments. The explanation of the fact that the Massachusetts line of employment does not strike so high a level as the United States census line in census years is that Massachusetts has not expanded in manufac-

turing as has the territory of the United States outside of Massachusetts. As a matter of fact, the line for Massachusetts is much below the Wisconsin line, which is a sample of establishments and not exhaustive.

The chart reveals how unfortunate it is that there are no complete census figures of employment in the peak year, 1920.

The Bureau of Labor Statistics index stood at 94 and that of Massachusetts at 96 in September, 1926. The New York index was 97 in August, and the Wisconsin index was 111 in July, the latest month for which this index was available. Starting with 1914 as 100, the population of the United States reached an index of 114.1 in 1923, while the United States census of wage earners in manufacturing industries reached an average index for the year of 127.1.

The change in the number of wage earners in the United States in different census years is shown in the chart. The year 1919 plainly was above normal, and 1921 just as plainly was below normal. Whether 1923 was normal can only be determined when census figures are available for later years. Based on census figures for all wage earners employed and taking 1914 as 100, the index for 1923 is 127.1. This is a geometric increase of 2.7 per cent per year as between 1914 and 1923. In the 15-year interval, 1899 to 1914, the increase of wage earners in manufacturing establishments in the United States was 49.3 per cent, or a geometric rate of increase of 2.7 per cent per year. Assuming the same rate of increase continuing into 1926, the index would be 137.7. These computations omit the census figures for the years not stated.

An arithmetic annual average from 1899 to 1923, using data for each census year and interpolating for each mid-census year, is found to be 2.31 points per year. This includes the war period and the subsequent depression. Interpolation at best is unsatisfactory and particularly so from 1914 to 1923. However, using this method for what it is worth, the estimated index for all wage earners in the manufacturing industries of the United States in 1926 is 131.8, the year 1914 being 100. The employment figures would indicate, however, that even this figure is too high.

INDEX NUMBERS OF PERSONS EMPLOYED, BASED ON STATISTICS OF NEW YORK, MASSACHUSETTS, WISCONSIN, AND U. S. BUREAU OF LABOR STATISTICS JUNE, 1914, TO SEPTEMBER, 1926

[June, 1914=100]

Year and month	New York	Massachusetts	U. S. Bureau of Labor Statistics	Wisconsin (after Nov., 1915)	Year and month	New York	Massachusetts	U. S. Bureau of Labor Statistics	Wisconsin (after Nov., 1915)
1914					1915				
June.....	100	100	100	-----	March.....	94	95	95	-----
July.....	97	97	97	-----	April.....	95	95	95	-----
August.....	92	96	94	-----	May.....	97	95	96	-----
September.....	96	96	96	-----	June.....	98	95	97	-----
October.....	95	97	96	-----	July.....	97	95	96	-----
November.....	93	96	95	-----	August.....	96	97	97	-----
December.....	92	95	94	-----	September.....	101	99	100	-----
1915					October.....	102	102	102	-----
January.....	92	93	93	-----	November.....	106	104	105	105
February.....	94	94	94	-----	December.....	108	105	107	-----

INDEX NUMBERS OF PERSONS EMPLOYED, BASED ON STATISTICS OF NEW YORK, MASSACHUSETTS, WISCONSIN, AND U. S. BUREAU OF LABOR STATISTICS, JUNE, 1914, TO SEPTEMBER, 1926—Continued

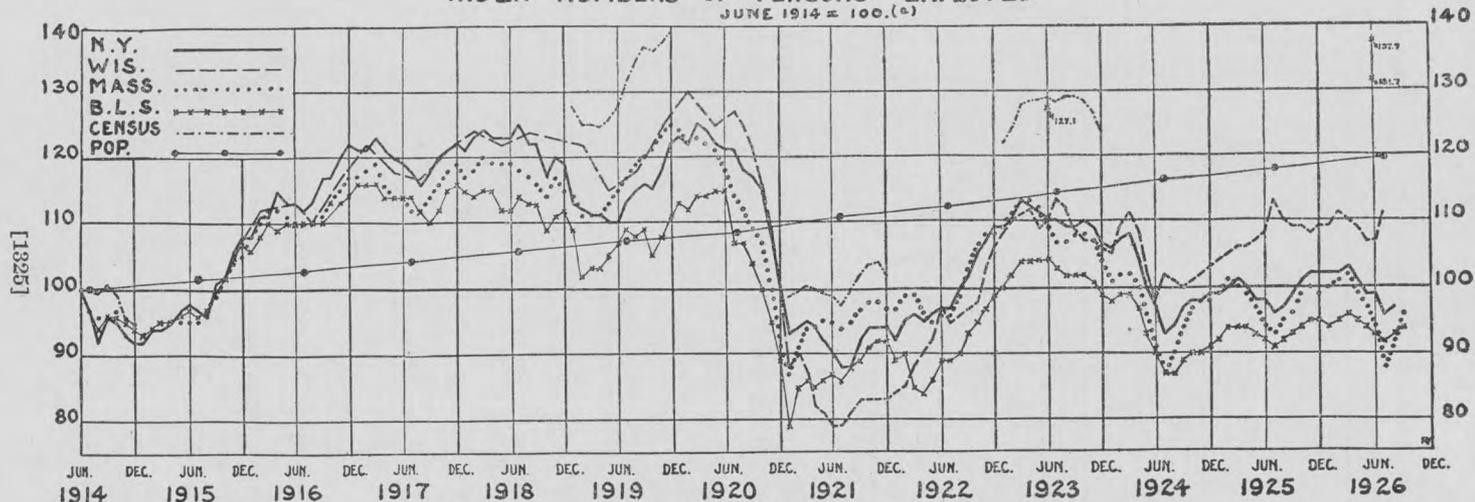
[June, 1914=100]

Year and month	New York	Massachusetts	U. S. Bureau of Labor Statistics	Wisconsin (after Nov., 1915)	Year and month	New York	Massachusetts	U. S. Bureau of Labor Statistics	Wisconsin (after Nov., 1915)
1916					1921				
January	108	108	106	---	May	92	95	86	81
February	111	110	108	112	June	90	95	87	79
March	111	112	110	---	July	88	94	86	79
April	115	112	109	---	August	88	95	88	81
May	113	111	110	113	September	92	97	89	83
June	113	110	110	---	October	94	98	91	83
July	112	110	110	---	November	94	98	92	83
August	113	110	110	110	December	94	97	92	83
September	117	111	110	---	1922				
October	117	113	112	---	January	92	97	89	84
November	120	115	113	117	February	95	99	90	85
December	122	117	114	---	March	96	99	85	88
1917					April	95	96	84	90
January	121	117	116	---	May	96	95	86	92
February	121	118	116	122	June	97	96	89	97
March	123	119	116	---	July	97	96	89	95
April	121	116	114	---	August	100	99	90	96
May	120	114	114	118	September	102	103	93	97
June	119	114	114	---	October	105	106	95	98
July	118	112	114	---	November	107	108	97	103
August	116	112	112	117	December	109	108	99	106
September	118	114	110	---	1923				
October	120	116	112	---	January	109	109	100	108
November	121	118	115	121	February	110	111	102	110
December	122	119	116	---	March	113	113	104	111
1918					April	112	113	104	112
January	121	117	115	---	May	111	112	104	109
February	123	118	114	124	June	110	109	104	110
March	124	120	115	---	July	110	107	103	113
April	123	119	114	---	August	109	107	102	112
May	123	119	112	122	September	109	108	102	109
June	123	119	112	---	October	110	108	102	107
July	125	118	114	---	November	109	107	101	107
August	122	117	113	124	December	107	104	99	106
September	122	116	113	---	1924				
October	117	114	109	---	January	106	101	98	105
November	120	117	111	123	February	107	102	99	109
December	119	115	112	---	March	108	102	99	111
1919					April	104	100	97	108
January	113	114	109	---	May	100	96	93	102
February	112	111	102	122	June	97	91	90	98
March	111	111	103	---	July	93	87	87	102
April	111	111	103	---	August	94	90	87	101
May	110	113	105	115	September	97	94	89	100
June	110	115	107	---	October	98	97	90	101
July	113	117	109	---	November	98	98	90	102
August	115	119	108	118	December	99	98	91	103
September	116	120	109	---	1925				
October	115	121	105	---	January	99	99	92	104
November	118	123	108	125	February	100	101	94	105
December	122	125	111	---	March	101	100	94	106
1920					April	100	99	94	106
January	123	124	113	---	May	98	97	93	107
February	122	122	112	130	June	98	94	92	108
March	125	123	114	---	July	96	93	91	113
April	124	122	114	---	August	97	95	92	110
May	122	121	115	125	September	99	96	93	109
June	121	118	115	---	October	101	99	94	109
July	121	114	107	127	November	102	100	95	108
August	118	112	107	125	December	102	99	95	109
September	117	109	104	122	1926				
October	115	107	100	116	January	102	100	94	109
November	108	100	95	108	February	102	101	95	111
December	100	91	89	100	March	103	102	96	110
1921					April	101	99	95	109
January	93	87	79	88	May	99	97	94	107
February	94	91	85	90	June	99	94	93	107
March	95	94	86	87	July	96	88	82	111
April	94	94	85	82	August	97	92	93	---
					September	96	96	94	---

[1324]

# INDEX NUMBERS OF PERSONS EMPLOYED

JUNE 1914 = 100. (a)



(a) EXCEPT, POPULATION IS OF JULY 1, AND CENSUS OF MANUFACTURES IS AVERAGE FOR YEAR.

CHANGES IN EMPLOYMENT SINCE 1914

## INDEX NUMBERS OF WAGE EARNERS IN THE MANUFACTURING INDUSTRIES OF THE UNITED STATES

[Average 1914=100.0]

Month	1914	1919	1921	1923
January.....	100.6	127.8	98.7	121.9
February.....	101.5	125.0	99.8	124.5
March.....	102.9	125.0	100.3	127.9
April.....	102.6	124.8	100.0	128.4
May.....	101.6	125.6	99.6	128.5
June.....	100.9	127.7	99.0	128.9
July.....	99.8	131.4	97.8	128.1
August.....	99.8	134.7	99.8	129.0
September.....	100.7	137.0	102.0	129.0
October.....	99.6	136.5	103.9	128.5
November.....	95.7	137.7	104.1	126.8
December.....	94.4	139.2	102.0	123.6
Average.....	100.0	131.0	100.6	127.1

Below are shown index numbers of estimated population of the United States as of July 1 each year on the basis of 1914 as 100:

Year	Index number	Year	Index number
1914.....	100.0	1921.....	110.7
1915.....	101.4	1922.....	112.2
1916.....	102.9	1923.....	114.1
1917.....	104.3	1924.....	116.1
1918.....	105.8	1925.....	117.8
1919.....	107.2	1926.....	119.6
1920.....	108.7		

### Employment and Earnings of Railroad Employees, September, 1925, and August and September, 1926

THE following table shows the number of employees and the earnings in various occupations among railroad employees in September, 1926, August, 1926, and September, 1925.

The figures are for Class I roads; that is, all roads having operating revenues of \$1,000,000 a year and over.

#### EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES, SEPTEMBER, 1925, AND AUGUST AND SEPTEMBER, 1926

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups; the grand totals will be found on pp. 151 and 153.]

Occupation	Number of employees at middle of month			Total earnings		
	September, 1925	August, 1926	September, 1926	September, 1925	August, 1926	September, 1926
<b>Professional, clerical, and general</b> .....	282,617	287,427	287,373	\$38,171,954	\$39,611,010	\$39,223,387
Clerks.....	167,014	168,770	168,840	21,351,310	22,057,293	21,859,841
Stenographers and typists.....	25,126	25,513	25,587	3,037,065	3,147,417	3,135,996
<b>Maintenance of way and structures</b> .....	428,808	469,246	458,067	33,909,513	44,110,838	42,222,412
Laborers, extra gang and work train.....	67,780	85,978	79,908	5,286,505	7,129,613	6,376,616
Laborers, track and roadway section.....	224,481	238,728	233,986	16,255,618	18,094,827	17,212,062
<b>Maintenance of equipment and stores</b> .....	512,301	514,351	517,578	64,815,405	68,230,082	66,904,496
Car men.....	114,550	112,081	113,893	16,224,047	16,821,974	16,568,659
Machinists.....	59,602	59,776	60,332	9,062,215	9,599,625	9,434,917
Skilled trades' helpers.....	111,347	113,301	113,916	11,829,020	12,683,390	12,441,902
Laborers (shops, engine houses, power plants, and stores).....	42,380	42,393	42,451	3,938,088	4,060,765	3,964,312
Common laborers (shops, engine houses, power plants, and stores).....	57,998	60,511	60,401	4,589,826	5,002,032	4,831,185

[1326]

EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES, SEPTEMBER, 1925, AND AUGUST AND SEPTEMBER, 1926—Continued

Occupation	Number of employees at middle of month			Total earnings		
	September, 1925	August, 1926	September, 1926	September, 1925	August, 1926	September, 1926
<b>Transportation, other than train, engine, and yard</b> .....	<b>212,213</b>	<b>210,208</b>	<b>213,434</b>	<b>\$25,601,698</b>	<b>\$26,026,296</b>	<b>\$26,007,290</b>
Station agents.....	30,988	30,677	30,683	4,749,347	4,797,726	4,748,683
Telegraphers, telephoners, and towermen.....	25,840	25,574	25,649	3,794,498	3,911,299	3,806,981
Truckers (stations, warehouses, and platforms).....	40,938	37,995	40,216	3,790,760	3,572,424	3,727,479
Crossing and bridge flagmen and gatemen.....	22,734	22,433	22,419	1,710,054	1,695,356	1,688,994
<b>Transportation (yard masters, switch tenders, and hostlers)</b> .....	<b>23,915</b>	<b>24,399</b>	<b>24,264</b>	<b>4,336,747</b>	<b>4,620,364</b>	<b>4,498,230</b>
<b>Transportation, train and engine</b> .....	<b>337,170</b>	<b>330,540</b>	<b>337,648</b>	<b>65,098,465</b>	<b>66,623,585</b>	<b>67,776,932</b>
Road conductors.....	37,350	37,943	38,430	8,875,868	8,994,105	9,162,016
Road brakemen and flagmen.....	75,747	75,801	77,568	13,311,176	13,315,153	13,707,381
Yard brakemen and yard helpers.....	52,810	54,033	55,537	8,985,866	9,444,165	9,530,748
Road engineers and motormen.....	44,486	44,940	45,808	11,899,134	12,096,847	12,362,969
Road firemen and helpers.....	46,095	46,300	47,031	8,863,864	8,995,229	9,188,065

State Reports on Employment  
California

THE following data, taken from the October, 1926, Labor Market Bulletin, issued by the Bureau of Labor Statistics of California, show changes in volume of employment and pay roll from September, 1925, to September, 1926, in 673 establishments in that State:

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF WEEKLY PAY ROLL IN 673 CALIFORNIA ESTABLISHMENTS BETWEEN SEPTEMBER, 1925, AND SEPTEMBER, 1926

Industry	Number of firms reporting	Employees		Weekly pay roll	
		Number in September, 1926	Per cent of increase (+) or decrease (-) as compared with September, 1925	Amount in September, 1926	Per cent of increase (+) or decrease (-) as compared with September, 1925
<b>Stone, clay, and glass products:</b>					
Miscellaneous stone and mineral products.....	10	1,592	+12.6	\$48,432	+24.4
Lime, cement, plaster.....	7	1,879	+1.6	59,422	+7.4
Brick, tile, pottery.....	22	3,321	-2.2	79,222	-2.5
Glass.....	5	805	+2.2	26,095	+3.7
<b>Total.....</b>	<b>44</b>	<b>7,597</b>	<b>+2.0</b>	<b>213,171</b>	<b>+6.2</b>
<b>Metals, machinery, and conveyances:</b>					
Agricultural implements.....	6	1,087	+17.8	29,768	+12.3
Automobiles, including bodies and parts.....	14	2,488	-13.2	77,393	+3.7
Brass, bronze, and copper products.....	9	1,100	+1.8	28,927	+1.3
Engines, pumps, boilers, and tanks.....	10	903	+2.3	27,532	+10.8
Iron and steel forgings, bolts, nuts, etc.....	8	3,060	+30.0	92,716	+37.5
Structural and ornamental steel.....	13	3,709	-15.4	115,928	-13.6
Ship and boat building and naval repairs.....	6	5,331	+37.2	163,038	+30.2
Tin cans.....	3	2,987	+23.6	82,909	+46.0
Other iron foundry and machine shop products.....	62	7,126	+5.1	192,698	+3.5

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF WEEKLY PAY ROLL IN 673 CALIFORNIA ESTABLISHMENTS BETWEEN SEPTEMBER, 1925, AND SEPTEMBER, 1926—Continued

Industry	Number of firms reporting	Employees		Weekly pay roll	
		Number in September, 1926	Per cent of increase (+) or decrease (-) as compared with September, 1925	Amount in September, 1926	Per cent of increase (+) or decrease (-) as compared with September, 1925
<b>Metals, machinery, and conveyances—Contd.</b>					
Other sheet metal products.....	23	1,690	+2.7	\$52,135	+9.0
Cars, locomotives, and railway repair shops.....	16	8,994	+7.7	256,749	+8.9
Total.....	170	38,475	+8.2	1,119,793	+71.1
<b>Wood manufactures:</b>					
Sawmills and logging.....	24	12,806	-2.5	385,600	- .6
Planing mills, sash, and door factories, etc.....	44	10,475	-1.2	299,349	-3.6
Other wood manufactures.....	40	4,921	+ .7	137,388	- .8
Total.....	108	28,202	-1.5	\$22,337	-1.7
<b>Leather and rubber goods:</b>					
Tanning.....	8	852	-10.4	22,787	-10.2
Finished leather products.....	6	536	+1.7	12,561	+28.2
Rubber products.....	7	2,969	+9.2	84,569	+15.2
Total.....	21	4,357	+3.8	119,917	+10.4
<b>Chemicals, oils, paints, etc.:</b>					
Explosives.....	4	513	+4.9	15,323	+22.2
Mineral oil refining.....	7	12,073	+5.9	431,149	+ .1
Paints, dyes, and colors.....	6	618	+6.2	15,434	+5.9
Miscellaneous chemical products.....	12	2,290	+8.4	58,387	-5.8
Total.....	29	15,494	+6.2	520,293	+ .1
<b>Printing and paper goods:</b>					
Paper boxes, bags, cartons, etc.....	9	2,115	-11.2	51,005	-9.3
Printing.....	36	2,244	+1.7	80,994	- .1
Publishing.....	16	3,872	+2.3	144,408	+5.8
Other paper products.....	8	1,121	+18.0	25,621	+14.4
Total.....	69	9,352	+ .3	302,028	+2.0
<b>Textiles:</b>					
Knit goods.....	7	692	+3.4	14,022	+4.7
Other textile products.....	6	1,652	- .3	34,775	+32.6
Total.....	13	2,344	+ .8	48,797	+23.2
<b>Clothing, millinery, and laundering:</b>					
Men's clothing.....	21	2,827	+3.8	61,237	+2.7
Women's clothing.....	11	993	+9.1	20,154	+16.9
Millinery.....	7	717	+7.3	14,300	+36.0
Laundries, cleaning, and dyeing.....	21	3,110	- .5	70,561	+5.9
Total.....	60	7,647	+2.9	166,252	+7.7
<b>Foods, beverages, and tobacco:</b>					
Canning, preserving of fruits and vegetables.....	22	24,116	+14.8	547,672	+11.6
Canning, packing of fish.....	13	2,059	+5.1	48,365	+36.1
Confectionery and ice cream.....	22	1,566	+3.6	34,150	+5.7
Groceries, not elsewhere specified.....	5	541	-13.0	11,611	-10.2
Bread and bakery products.....	19	3,559	+3.2	103,915	+3.2
Sugar.....	6	4,007	-7.3	103,775	-12.7
Slaughtering and meat products.....	15	2,696	-8.7	79,101	-5.2
Cigars and other tobacco products.....	4	995	-9.5	16,996	-9.7
Beverages.....	3	431	+9.9	11,376	+23.4
Dairy products.....	10	2,716	+11.2	84,959	+6.7
Flour and grist mills.....	4	408	-19.7	10,329	-16.6
Ice manufactures.....	6	1,105	- .3	36,697	+3.5
Other food products.....	11	1,032	+17.9	20,446	+34.7
Total.....	140	45,231	+7.1	1,108,792	+6.2
Water, light, and power.....	5	9,056	-10.0	273,279	-11.1
Miscellaneous.....	14	2,426	+18.2	59,847	+17.3
Total, all industries.....	673	170,181	+3.9	4,754,506	+4.1

## Illinois

THE following statistics, showing the changes in employment and earnings in Illinois factories in September, 1926, as compared with August, 1926, are taken from the October, 1926, issue of the Labor Bulletin, published by the Illinois Department of Labor:

## CHANGES IN EMPLOYMENT AND EARNINGS IN ILLINOIS FACTORIES FROM AUGUST TO SEPTEMBER, 1926

Industry	Per cent of increase (+) or decrease (-), August to September, 1926			
	Employment			Total earnings
	Male	Female	Both sexes	
<b>Stone, clay, and glass products:</b>				
Miscellaneous stone and mineral products.....	+2.6	-1.4	+2.5	+4.0
Lime, cement, and plaster.....	- .8	0.0	- .8	+ .6
Brick, tile, and pottery.....	- .6	+8.7	- .4	-4.2
Glass.....	-3.1	+1.4	-2.6	+4.1
Total.....	-1.0	+2.0	- .8	- .2
<b>Metals, machinery, conveyances:</b>				
Iron and steel.....	+1.3	- .3	+1.2	+1.0
Sheet metal work and hardware.....	- .9	+1.9	- .1	+6.9
Tools and cutlery.....	+10.5	+24.7	+11.7	+3.8
Cooking, heating, ventilating apparatus.....	-1.8	-8.1	-2.0	+7.9
Brass, copper, zinc, babbitt metal.....	+3.5	0.0	+3.4	+1.7
Cars and locomotives.....	-5.1	+8.2	-4.9	-1.2
Automobiles and accessories.....	-2.9	+7.9	-2.0	-5.3
Machinery.....	+2.0	+7.1	+2.6	-6.9
Electrical apparatus.....	+ .9	+1.0	+ .3	-2.5
Agricultural implements.....	- .1	+5.1	- .0	-5.0
Instruments and appliances.....	+4.1	+11.1	+9.8	+4.8
Watches, watch cases, clocks, and jewelry.....	- .5	+ .2	- .2	+1.2
Total.....	+ .2	+2.9	+ .4	-1.0
<b>Wood products:</b>				
Sawmill and planing-mill products.....	+4.7	0.0	+4.7	- .1
Furniture and cabinet work.....	+4.4	+1.6	+4.1	+6.0
Pianos, organs, and other musical instruments.....	+2.0	+8.6	+2.1	+2.9
Miscellaneous wood products.....	+5.2	+21.0	+6.7	-3.5
Household furnishings.....	.0	+25.3	+7.2	+4.4
Total.....	+3.9	+10.1	+4.3	+3.2
<b>Furs and leather goods:</b>				
Leather.....	+7.8	-2.9	+6.1	+4.6
Furs and fur goods.....	+53.8	+33.3	+45.5	+146.8
Boots and shoes.....	+2.5	+ .5	- .2	-7.4
Miscellaneous leather goods.....	+80.1	+722.0	+137.8	+46.2
Total.....	+9.3	+20.7	+6.7	-2.0
<b>Chemicals, oils, paints, etc.:</b>				
Drugs and chemicals.....	-7.7	+8.1	- .7	+2.3
Paints, dyes, and colors.....	+2.9	- .7	+2.7	- .3
Mineral and vegetable oil.....	+2.5	+1.2	+2.4	+ .3
Miscellaneous chemical products.....	+3.5	+5.0	+2.3	+1.7
Total.....	+1.8	+2.4	+2.0	+ .9
<b>Printing and paper goods:</b>				
Paper boxes, bags, and tubes.....	+ .3	-4.3	- .9	-3.0
Miscellaneous paper goods.....	+ .3	+6.0	+2.5	+4.4
Job printing.....	-4.1	-1.1	-3.3	-0.5
Newspapers and periodicals.....	+1.3	+5.3	+1.6	+6.6
Edition bookbinding.....	-3.4	-5.5	-4.0	-15.2
Total.....	-1.9	-1.4	-1.6	-4.7

## CHANGES IN EMPLOYMENT AND EARNINGS IN ILLINOIS FACTORIES FROM AUGUST TO SEPTEMBER, 1926—Continued

Industry	Per cent of increase (+) or decrease (-), August to September, 1926			
	Employment			Total earnings
	Male	Female	Both sexes	
<b>Textiles:</b>				
Cotton and woolen goods.....	+5.6	+4.4	+5.1	+30.8
Knit goods, cotton and woolen hosiery.....	+5.6	+1.1	+1.1	+11.9
Thread and twine.....	.0	-.6	-1.6	-4.1
Total.....	+4.4	+1.3	+1.3	+12.3
<b>Clothing, millinery, laundering:</b>				
Men's clothing.....	-7.1	-5.3	-5.2	-23.6
Men's shirts and furnishings.....	+21.4	+25.5	-3.8	-11.1
Overalls and work clothing.....	-3.0	+2.9	+2.2	-2.1
Men's hats and caps.....	.0	-16.7	-6.3	+24.3
Women's clothing.....	+1.3	+10.6	+8.3	+6.4
Women's underwear.....	-3.4	+2.2	+1.3	-1.2
Women's hats.....	+4.6	-7.3	-4.0	-.9
Laundering, cleaning, and dyeing.....	+1.8	-.2	+4	+2.4
Total.....	-5.0	-1.4	-2.7	-16.1
<b>Food, beverages, and tobacco:</b>				
Flour, feed, and other cereal products.....	+2.4	+10.0	+3.0	-.4
Fruit and vegetable canning and preserving.....	+216.6	+680.6	+288.1	+359.9
Miscellaneous groceries.....	-1.9	+10.7	+9	+1
Slaughtering and meat packing.....	+3.7	+5.6	+3.9	+9.2
Dairy products.....	-.4	-2.2	-.5	-3.8
Bread and other bakery products.....	+2	+9	+2	+4.7
Confectionery.....	+20.7	+48.8	+43.7	+43.2
Beverages.....	-3.5	-5.0	-3.2	-7.3
Cigars and other tobacco products.....	+3.0	+2.2	+2.5	-3.1
Manufactured ice.....	-13.5	.....	-13.5	-13.7
Ice cream.....	-4.7	-24.1	-6.9	-21.2
Total.....	+7.6	+26.6	+11.3	+9.6
Total, all manufacturing industries.....	+1.5	+6.9	+2.2	-.2
<b>Trade—wholesale and retail:</b>				
Department stores.....	+13.5	+7.8	+9.8	+8.5
Wholesale dry goods.....	+14.3	+8.3	+11.1	+7.5
Wholesale groceries.....	+3.2	+25.9	+8.2	+2.5
Mail-order houses.....	+4	-1.1	+6	+2.3
Total.....	+4.1	+2.5	+3.1	+3.7
<b>Public utilities:</b>				
Water, light, and power.....	+8	+1.9	+2	-9.0
Telephone.....	-.6	-1.6	-1.3	-2.0
Street railways.....	+8	+5	+7	-2.3
Railway car repair shops.....	-.9	-7.5	-.9	-1.1
Total.....	+1	-1.6	-.3	-3.5
<b>Coal mining.....</b>	+2.0	.....	+2.0	+12.5
<b>Building and contracting:</b>				
Building construction.....	+6	.....	+6	-6.9
Road construction.....	-24.3	.....	-24.3	-20.9
Miscellaneous contracting.....	-2.4	.....	-2.4	-8.3
Total.....	-1.0	.....	-1.0	-7.6
Total, all industries.....	+1.3	+3.7	+1.6	-.5

Iowa

THE following figures, from the October, 1926, issue of the Iowa Employment Survey, published by the bureau of labor of that State, show changes in volume of employment in Iowa from September to October, 1926:

CHANGES IN VOLUME OF EMPLOYMENT IN IOWA, SEPTEMBER TO OCTOBER, 1926

Industry	Number of firms reporting	Employees on pay roll October, 1926		Industry	Number of firms reporting	Employees on pay roll October, 1926	
		Number	Per cent of increase (+) or decrease (-) as compared with September, 1926			Number	Per cent of increase (+) or decrease (-) as compared with September, 1926
<b>Food and kindred products:</b>				<b>Leather products:</b>			
Meat packing.....	8	6,635	-1.2	Boots and shoes.....	2	297	+9.6
Cereals.....	3	1,340	+ .7	Saddlery and harness.	6	217	+4.8
Flour.....	4	124	+5.1	Fur goods and tanning.....	5	136	+7.1
Bakery products.....	8	877	+4.8	Gloves and mittens.....	4	350	+8.4
Confectionery.....	6	434	+4.3	Total.....	17	1,000	+7.8
Poultry products, butter, etc.....	6	810	+11.3	<b>Paper products, printing and publishing:</b>			
Sugar, starch, sirup, glucose, etc.....	3	977	+20.8	Paper products.....	4	234	+2.5
Other food products, coffee, etc.....	8	508	-37.6	Printing and publishing.....	17	2,793	+1.5
Total.....	46	11,705	- .5	Total.....	21	3,027	+1.2
<b>Textiles:</b>				<b>Patent medicines and compounds.....</b>	8	452	-1.7
Clothing, men's.....	9	968	+1.4	<b>Stone and clay products:</b>			
Millinery.....	2	144	-11.7	Cement, plaster, gypsum.....	8	2,183	+2.2
Clothing, women's, and woolen goods.....	3	605	+3.6	Brick and tile (clay).....	11	852	-3.7
Hosiery, awnings, etc.....	5	585	0.0	Marble, granite, crushed rock, and stone.....	3	106	+7.1
Buttons, pearl.....	8	683	+8.9	Total.....	22	3,141	+ .7
Total.....	27	2,985	+2.4	<b>Tobacco and cigars.....</b>	5	356	- .6
<b>Iron and steel works:</b>				<b>Railway car shops.....</b>	6	3,267	+1.5
Foundry and machine shops.....	27	2,430	+1.3	<b>Various industries:</b>			
Brass, bronze products, plumbers' supplies.....	4	449	+3.5	Auto tires and tubes.....	2	259	0.0
Autos, tractors, and engines.....	6	2,489	-4.7	Brooms and brushes.....	5	165	+6.5
Furnaces.....	7	564	+6.0	Laundries.....	4	206	-6.8
Pumps.....	3	307	-5.8	Mercantile.....	11	3,477	+1.1
Agricultural implements.....	9	812	- .7	Public service.....	3	1,324	- .8
Washing machines.....	10	2,485	+2.9	Seeds.....	2	207	-4.6
Total.....	66	9,536	0.0	Wholesale houses.....	28	1,460	-1.3
<b>Lumber products:</b>				Commission houses.....	11	339	0.0
Mill work, interiors, etc.....	17	3,016	- .1	Other industries.....	12	1,582	-1.4
Furniture, desks, etc.....	9	1,144	+3.2	Total.....	78	9,019	- .3
Refrigerators.....	3	145	0.0	<b>Grand total.....</b>	336	49,152	+ .5
Coffins, undertakers' supplies.....	5	170	0.0				
Carriages, wagons, truck bodies.....	6	189	+30.3				
Total.....	40	4,664	+1.7				

## Maryland

THE following report on volume of employment in Maryland from September to October, 1926, covering 45,232 employees and a pay roll totaling \$1,167,983, was furnished by the Commissioner of Labor and Statistics of Maryland:

## CHANGES IN EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN MARYLAND IN OCTOBER, 1926

Industry	Estab-lish-ments reporting for Sep-tem-ber and October	Employment		Pay roll	
		Number of em-ploy-ees, October, 1926	Per cent of in-crease (+) or decrease (-) as compared with Sep-tem-ber, 1926	Amount October, 1926	Per cent of in-crease (+) or decrease (-) as compared with Sep-tem-ber, 1926
Bakery.....	3	206	-2.0	\$5,697	+1.7
Beverages and soft drinks.....	3	139	-14.8	3,943	-15.0
Boots and shoes.....	8	1,257	+11.7	25,602	+17.7
Boxes, fancy and paper.....	9	564	+6.2	8,029	+5.8
Boxes, wooden.....	5	331	+5.4	6,159	+4.8
Brass and bronze.....	3	2,372	-5.8	58,793	-7
Brick, tile, etc.....	4	799	+2.5	21,088	-7
Brushes.....	6	1,145	+2.5	22,233	+9.3
Car building and repairing.....	4	4,479	-9	156,819	-1.2
Chemicals.....	5	751	-6	18,955	+3.3
Clothing, men's outer garments.....	5	2,261	-6.5	46,597	-18.2
Clothing, women's outer garments.....	4	732	-2	9,265	+7.6
Confectionery.....	6	1,155	+19.6	14,491	+13.2
Cotton goods.....	4	1,557	+2.5	22,199	+19.9
Fertilizer.....	5	624	-28.0	13,567	-33.7
Food preparation.....	4	153	+6.9	3,819	+4.7
Foundry.....	10	1,209	-5	29,913	-7.0
Furnishing goods, men's.....	5	905	+11.5	12,381	+6.6
Furniture.....	10	951	+9.3	21,097	+14.0
Glass manufacture.....	3	649	-2.5	14,607	+5.0
Ice cream.....	3	181	-3.8	5,390	-6.0
Leather goods.....	5	649	-2	11,561	-1.7
Lithographing.....	3	501	-----	14,740	+4.2
Lumber and planing.....	9	636	-3.5	16,970	-2.7
Mattresses and spring beds.....	4	160	-1.9	3,983	+9.4
Patent medicines.....	3	780	+6.2	12,425	+5.4
Pianos.....	3	1,001	+2.4	28,592	+3.8
Plumbers' supplies.....	4	1,565	-8.8	38,504	-15.5
Printing.....	9	1,336	+3.4	47,185	+7.3
Rubber tire manufacture.....	1	3,275	+4.1	191,810	+20.9
Shirts.....	4	605	+8	8,386	+4.1
Stamped and enameled ware.....	3	439	+6.5	9,673	+9.9
Tinware.....	3	2,466	-5.7	51,179	-8.3
Tobacco.....	7	871	+2.8	14,757	+7.1
Miscellaneous.....	19	5,014	+1	126,558	+7.3

## Massachusetts

A PRESS release from the Department of Labor and Industries of Massachusetts shows the following changes in volume of employment in various industries in that State from August to September, 1926:

NUMBER OF EMPLOYEES IN 980 MANUFACTURING ESTABLISHMENTS IN MASSACHUSETTS, WEEK INCLUDING OR ENDING NEAREST TO AUGUST 15 AND SEPTEMBER 15, 1926

Industry	Number of establishments	Number of wage earners employed			
		August, 1926	September, 1926		
			Full time	Part time	Total
Automobiles, including bodies and parts.....	17	4, 290	1, 267	2, 775	4, 042
Bookbinding.....	15	942	792	174	966
Boot and shoe cut stock and findings.....	46	2, 316	1, 729	694	2, 423
Boots and shoes.....	65	22, 526	13, 789	8, 983	22, 772
Boxes, paper.....	27	2, 164	1, 569	747	2, 316
Boxes, wooden packing.....	13	1, 105	960	136	1, 096
Bread and other bakery products.....	51	4, 140	3, 928	258	4, 186
Carpets and rugs.....	5	3, 404	-----	3, 423	3, 423
Cars and general shop construction and repairs, steam railroads.....	4	2, 837	2, 232	651	2, 883
Clothing, men's.....	29	3, 687	2, 811	992	3, 803
Clothing, women's.....	33	1, 452	1, 228	352	1, 580
Confectionery.....	13	3, 304	2, 459	1, 160	3, 619
Copper, tin, sheet iron, etc.....	15	464	429	36	465
Cotton goods.....	54	34, 451	21, 980	14, 996	36, 976
Cutlery and tools.....	24	4, 255	3, 630	1, 074	4, 704
Dyeing and finishing textiles.....	8	6, 335	1, 314	5, 192	6, 506
Electrical machinery, apparatus, and supplies.....	13	10, 057	10, 792	-----	10, 792
Foundry products.....	27	2, 883	1, 931	935	2, 866
Furniture.....	32	3, 371	3, 470	99	3, 569
Gas and by-products.....	13	1, 178	1, 193	-----	1, 193
Hosiery and knit goods.....	12	4, 707	2, 979	1, 763	4, 742
Jewelry.....	34	2, 764	2, 685	326	3, 011
Leather, tanned, curried, and finished.....	25	5, 731	5, 194	887	6, 081
Machine-shop products.....	44	8, 331	7, 873	579	8, 452
Machine tools.....	22	1, 856	1, 434	422	1, 856
Musical instruments.....	13	1, 258	946	346	1, 292
Paper and wood pulp.....	21	5, 559	4, 745	1, 200	5, 945
Printing and publishing, book and job.....	38	3, 220	3, 090	224	3, 314
Printing and publishing, newspaper.....	18	2, 333	2, 377	-----	2, 377
Rubber footwear.....	3	8, 993	9, 115	-----	9, 115
Rubber goods.....	7	2, 499	2, 643	-----	2, 643
Silk goods.....	10	4, 029	4, 145	-----	4, 145
Slaughtering and meat packing.....	5	1, 525	296	1, 245	1, 541
Stationery goods.....	8	1, 512	1, 653	-----	1, 653
Steam fittings and steam and hot-water heating apparatus.....	9	1, 696	1, 721	-----	1, 721
Stoves and stove linings.....	5	1, 562	474	1, 197	1, 671
Textile machinery and parts.....	14	4, 172	410	3, 800	4, 210
Tobacco.....	5	872	867	15	882
Woolen and worsted goods.....	57	17, 503	9, 399	9, 135	18, 534
All other industries.....	126	28, 405	13, 698	15, 074	28, 772
Total.....	980	223, 688	153, 247	78, 890	232, 137

## New York

THE following statistics on changes in employment and pay rolls in New York State factories in September, 1926, were furnished by the New York State Department of Labor. The table is based on a fixed list of approximately 1,700 factories whose weekly pay roll for the middle week of September was \$14,664,081.

CHANGES IN EMPLOYMENT AND PAY ROLL IN NEW YORK STATE FACTORIES  
FROM SEPTEMBER, 1925, AND AUGUST, 1926, TO SEPTEMBER, 1926

Industry	Per cent of increase (+) or decrease (-)			
	August, 1926, to September, 1926		September, 1925, to September, 1926	
	Employ- ment	Pay roll	Employ- ment	Pay roll
Cement.....	-0.4	+5.4	+0.7	+4.1
Brick.....	-5.6	-4.3	+7.5	+17.1
Pottery.....	-2.8	-1.6	-6.9	-8.4
Glass.....	-3.4	+5	-9.6	-8.2
Pig iron.....	+4.8	+6.4	+25.8	+34.1
Structural iron.....	-1.2	+2.6	-4.4	+3.4
Hardware.....	+1.4	+4.0	+4.6	+5.3
Stamped ware.....	-1.9	-3.7	-3.0	-2.3
Cutlery.....	+8	+1.9	+4.2	+5.3
Steam and hot water.....	-1.4	+5.6	+2.6	+12.9
Stoves.....	+7.2	+12.0	-16.4	-11.8
Agricultural implements.....	+1.4	-7.7	-6.8	-15.9
Electrical machinery, etc.....	+6.6	+5.7	+10.1	+11.5
Foundry.....	+1.5	+2.1	+7.1	+9.5
Autos and parts.....	+2.4	+6.8	-5.9	-3.4
Cars, locomotives, etc.....	-8.5	-6.3	+27.8	+37.8
Railway repair shops.....	+2	+3.0	+8	+2.7
Millwork.....	-6	-2.2	-5.2	-6
Sawmills.....	+2.7	+3.5	-2.4	-4.0
Furniture and cabinet.....	+2.8	+4.5	+2.6	+3.8
Furniture.....	+2.4	+5.8	+3.3	+4.2
Pianos.....	+2.6	+5.6	+1.5	+6.1
Leather.....	-2.8	-1.4	-2.4	+11.9
Boots and shoes.....	-1	+1.1	-6.7	-2.6
Drugs.....	-2	-4	+5.1	+13.5
Petroleum.....	-1.7	-1.8	-2.1	-7
Paper boxes.....	-1.9	+5	+5.4	+4.9
Printing:				
Newspapers.....	+1.7	+2.1	-1.3	+4
Book and job.....	+4.0	+7.4	+2.9	+7.6
Silk goods.....	+6.3	+8.3	-17.2	-18.3
Carpets.....	+1.2	+1.2	-1	+4.5
Woolens.....	+10.9	+15.2	-7.0	+2.4
Cotton goods.....	+1.2	+3.8	+10.4	+19.3
Cotton and woolen.....	+3.4	+9.7	-8.9	-7.2
Dyeing.....	+2.7	+10.3	-5.2	-4.5
Men's clothing.....	-1.0	-3.7	-5.6	-7.1
Shirts and collars.....	+4.5	+3.4	-13.7	-12.4
Women's clothing.....	+28.1	+29.9	-14.4	-14.4
Women's headwear.....	+34.0	+44.8	+1.0	+19.3
Flour.....	+3.0	+11.0	-8.7	-7.8
Sugar.....	-7.3	-3.9	-14.3	-14.4
Slaughtering.....	+1.2	+3.4	-2.7	+1.9
Bread.....	+1.2	+3.6	+1.0	+1.0
Confectionery.....	+10.1	+13.9	-2.7	+1.8
Cigars.....	+1.0	+6.4	-24.8	-21.5
Total.....	+2.4	+4.0	+1	+3.5

## Oklahoma

THE data given below, from the October 15, 1926, issue of the Oklahoma Labor Market, show the changes in employment and pay rolls in 710 establishments in Oklahoma from August to September, 1926:

CHANGES IN EMPLOYMENT AND PAY ROLLS IN 710 INDUSTRIAL ESTABLISHMENTS IN OKLAHOMA, AUGUST TO SEPTEMBER, 1926

Industry	Number of plants reporting	September, 1926			
		Employment		Pay roll	
		Number of employees	Per cent of increase (+) or decrease (-) as compared with August, 1926	Amount	Per cent of increase (+) or decrease (-) as compared with August, 1926
Cottonseed-oil mills.....	13	210	+24.3	\$4,409	+27.2
Food production:					
Bakeries.....	35	571	-3	14,124	-5.8
Confections.....	7	69	+115.6	974	+74.3
Creameries and dairies.....	11	186	+5.1	3,780	+7.6
Flour mills.....	44	432	-8.3	9,980	-6.3
Ice and ice cream.....	33	517	-6.3	13,535	-3.6
Meat and poultry.....	14	1,555	+4.6	37,602	+11.4
Lead and zinc:					
Mines and mills.....	46	3,479	+12.2	101,442	+19.4
Smelters.....	17	2,268	+3.5	62,066	+7.0
Metals and machinery:					
Auto repairs, etc.....	29	1,529	+2	47,980	-4.6
Foundry and machine shops.....	38	1,197	-3.9	32,244	-4.0
Tank construction and erection.....	16	768	+6.7	19,088	+10.3
Oil industry:					
Production and gasoline extraction.....	123	4,608	+0	134,594	+1.3
Refineries.....	66	6,106	+1.5	199,791	+2.3
Printing: Job work.....	24	267	+0	7,955	0.0
Public utilities:					
Steam railroad shops.....	11	1,702	-3.7	49,166	-6
Street railways.....	6	710	+2.6	16,269	+1.4
Water, light, and power.....	50	1,897	+11.2	42,672	+31.8
Stone, clay, and glass:					
Brick and tile.....	11	418	-7.9	8,301	-6.0
Cement and plaster.....	6	1,092	+6.2	27,746	+6.4
Crushed stone.....	6	257	+8.0	4,369	+5.8
Glass manufacturing.....	9	921	+9.6	18,084	-2
Textiles and cleaning:					
Textile manufacturing.....	9	442	+5.2	5,934	-5
Laundries and cleaning.....	52	1,430	-1	25,446	+5
Woodworking:					
Sawmills.....	14	467	+12.0	6,440	+20.3
Millwork, etc.....	20	349	+4.2	9,075	+7.0
Total, all industries.....	710	32,947	+2.9	903,086	+4.8

## Wisconsin

THE October, 1926, issue of the Wisconsin Labor Market, issued by the State industrial commission, contains the following data on volume of employment in Wisconsin industries in September, 1926.

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF PAY ROLL IN IDENTICAL ESTABLISHMENTS IN WISCONSIN INDUSTRIES FROM SEPTEMBER, 1925, AND AUGUST, 1926, TO SEPTEMBER, 1926

Industry	Per cent of increase (+) or decrease (-)			
	August to September, 1926		September, 1925, to September, 1926	
	Employment	Pay roll	Employment	Pay roll
<i>Manual</i>				
Agriculture			0.0	
Logging	-6.4		-2.4	
Mining	+6.9	+5.6	+8.3	+19.6
Lead and zinc	+6.6	-8	+2	+6.3
Iron	+7.6	+18.1	+29.9	+51.1
Stone crushing and quarrying	-4.3	-15.2	-9.2	-16.1
Manufacturing	-1.6	-1.4	0	-1
Stone and allied industries	+7	+2.3	-7.4	+1.5
Brick, tile, and cement blocks	-3.8	+1.2	-9.2	-6.5
Stone finishing	+1.5	+2.7	-6.2	+5.6
Metal	+4	+7	-7	-1.8
Pig iron and rolling mill products	+9.6	-4.2	-17.5	-17.5
Structural-iron work	-2.3	+1.0	+12.3	+18.0
Foundries and machine shops	-3	-5	+4.6	+6
Railroad repair shops	+2.7	+1.3	-2.3	-3.6
Stoves	+1.3	-3.9	-1.9	-9.6
Aluminum and enamel ware	+3.7	+4	+1.0	+4.7
Machinery	-7.2	-3.4	-7.5	-9
Automobiles	+3.0	+13.1	-4	-8.0
Other metal products	+4.9	-3.8	+5.3	+6.5
Wood	-3	-2.6	+8	+1
Sawmills and planing mills	-4.7	-5.5	-3.2	-2.2
Box factories	+12.7	+12.1	+24.7	+24.6
Panel and veneer mills	-3.0	-6.1	+9.9	+7.8
Furniture	+1.7	-1	+1.3	+3.9
Sash, door, and interior finish	+6	-3.5	+2	-1
Other wood products	+3.6	+2.5	-2.3	-11.5
Rubber	+2	+5	-1.7	+7
Leather	-3	-3.2	+2.1	-1.5
Tanning	-6.2	-13.4	-9.0	-13.7
Boots and shoes	+4.3	+3.4	+6.0	+2.0
Other leather products	+1.0	+4.3	+15.2	+19.0
Paper	-1.9	+2.8	+8.8	+12.1
Paper and pulp mills	-2.5	+3.7	+13.2	+14.5
Paper boxes	+3	+2.0	+1.7	+13.7
Other paper products	-7	-1.0	-3.4	-5
Textiles	+3	-4.7	-8.4	-2.3
Hosiery and other knit goods	+5	-2.4	-10.9	-9
Clothing	-1.4	-12.3	-3.5	-4.0
Other textile products	+3.6	+9.9	-10.1	-3.1
Foods	-14.7	-13.3	-4.2	-8.7
Meat packing	-19.9	-26.3	-6.1	+1.2
Baking and confectionery	+8.8	+2.9	-2.2	+1.1
Milk products	-7.8	+5.6	-1.3	+8.7
Canning and preserving	-43.6	-41.0	-13.4	-26.7
Flour mills	-14.5	-13.3	-21.9	-31.8
Tobacco manufacturing	-2.5	-3.9	+5.6	+1.3
Other food products	+9.5	-1.0	+19.8	-21.3
Light and power	-1.4	-7	+11.6	+16.0
Printing and publishing	+7	-1.6	+6.2	+4.9
Laundry, cleaning, and dyeing	+5	+2.6	+2	+1.5
Chemical (including soap, glue, and explosives)	+5.4	+11.2	-5.9	+6.4
Construction:				
Building	-8.4	-12.8	-16.5	-12.4
Highway	+1.3		-8.8	0
Railroad	-3.8	-2.0	+19.9	+12.0
Marine, dredging, sewer digging	+19.1	-5.2	+4.7	-17.5
Communication:				
Steam railways	+11.3	+17.0	-4.6	-3.9
Electric railways	-4.1	-3.6	-3.8	+1.2
Express, telephone, and telegraph	-1.8	+8	+3.8	+4.0
Wholesale trade	-4	+5.4	-11.9	+6.7
Hotels and restaurants	-4.1		+5.8	
<i>Nonmanual</i>				
Manufacturing, mines, and quarries	-4	-1.0	+5.0	+5.2
Construction	-2.1	+2.9	-6.0	0
Communication	-4	-1.5	+3.2	+3.9
Wholesale trade	-5.4	-4.8	-12.2	-10.4
Retail trade—sales force only	+10.3	+7.8	+4.9	-6
Miscellaneous professional services	-8	+8.5	+11.0	+15.3
Hotels and restaurants	+1.5		+1.5	

## Extent of Unemployment in Chile

A COMMUNICATION from the American Legation at Santiago, Chile, dated September 4, 1926, reported the seriousness of the unemployment problem in Chile in August, 1926, at which time there were 25,000 individuals unemployed, affecting approximately 70,000 persons. As regards the previous occupation of the unemployed, 7,500 were nitrate employees, 1,400 miners, 5,000 farm laborers, 6,600 industrial employees, and 4,000 were in the construction trade.

The Chilean Government is endeavoring to obtain work for these people, and it is hoped that it may employ 5,000 on the construction and repair of roads and 1,000 on canal work.

The Minister of Public Works, however, does not anticipate the end of the unemployment crisis before March or April, 1927.

# PRICES AND COST OF LIVING

## Retail Prices of Food in the United States

THE following tables are compiled from monthly reports of actual selling prices<sup>1</sup> received by the Bureau of Labor Statistics from retail dealers.

Table 1 shows for the United States retail prices of food, October 15, 1925, and September 15 and October 15, 1926, as well as the percentage changes in the year and in the month. For example, the retail price per pound of lard was 24.1 cents on October 15, 1925; 22.3 cents on September 15, 1926; and 21.9 cents on October 15, 1926. These figures show decreases of 9 per cent in the year and 2 per cent in the month.

The cost of the various articles of food combined shows a decrease of 1.0 per cent on October 15, 1926, as compared with October 15, 1925, and an increase of 0.9 per cent on October 15, 1926, as compared with September 15, 1926.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE OCTOBER 15, 1926, COMPARED WITH SEPTEMBER 15, 1926, AND OCTOBER 15, 1925

[Percentage changes of five-tenths of 1 per cent and over are given on whole numbers]

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (-), Oct. 15, 1926, compared with—	
		Oct. 15, 1925	Sept. 15, 1926	Oct. 15, 1926	Oct. 15, 1925	Sept. 15, 1926
		<i>Cents</i>	<i>Cents</i>	<i>Cents</i>		
Sirloin steak.....	Pound.....	41.2	41.9	41.5	+1	-1
Round steak.....	do.....	35.4	35.4	36.0	+2	-1
Rib roast.....	do.....	30.0	30.6	30.5	+2	-0.3
Chuck roast.....	do.....	22.0	22.7	22.8	+4	+0.4
Plate beef.....	do.....	14.1	14.5	14.6	+4	+1
Pork chops.....	do.....	39.1	42.5	42.6	+9	+0.2
Bacon.....	do.....	49.6	51.9	51.7	+4	-0.4
Ham.....	do.....	54.3	60.4	59.8	+10	-1
Lamb, leg of.....	do.....	38.4	39.1	38.3	-0.3	-2
Hens.....	do.....	36.5	37.8	37.6	+3	-1
Salmon, canned, red.....	do.....	35.5	37.2	35.6	+0.3	-4
Milk, fresh.....	Quart.....	14.3	14.0	14.0	-2	0
Milk, evaporated.....	15-16 oz. can.....	11.5	11.5	11.4	-1	-1
Butter.....	Pound.....	59.4	52.5	54.3	-9	+3
Oleomargarine (all butter substitutes).....	do.....	30.9	30.2	30.2	-2	0
Cheese.....	do.....	37.2	36.1	36.7	-1	+2
Lard.....	do.....	24.1	22.3	21.9	-9	-2
Vegetable lard substitute.....	do.....	25.9	25.9	25.7	-1	-1
Eggs, strictly fresh.....	Dozen.....	60.3	51.5	58.1	-4	+13
Eggs, storage.....	do.....	46.0		45.9	-0.2	

<sup>1</sup>In addition to retail prices of food and coal, the bureau publishes the prices of gas and electricity from each of 51 cities for the dates for which these data are secured.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE OCTOBER 15, 1926, COMPARED WITH SEPTEMBER 15, 1926, AND OCTOBER 15, 1925—Continued

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (-), Oct. 15, 1926, compared with—	
		Oct. 15, 1925	Sept. 15, 1926	Oct. 15, 1926	Oct. 15, 1925	Sept. 15, 1926
		<i>Cents</i>	<i>Cents</i>	<i>Cents</i>		
Bread.....	Pound.....	9.4	9.4	9.4	0	0
Flour.....	do.....	5.9	5.8	5.7	-3	-2
Corn meal.....	do.....	5.3	5.1	5.1	-4	0
Rolled oats.....	do.....	9.2	9.1	9.1	-1	0
Corn flakes.....	8-oz. pkg.....	11.0	10.9	10.9	-1	0
Wheat cereal.....	28-oz. pkg.....	25.1	25.4	25.4	+1	0
Macaroni.....	do.....	20.5	20.2	20.2	-1	0
Rice.....	do.....	11.3	11.7	11.6	+3	-1
Beans, navy.....	do.....	10.0	9.1	9.1	-9	0
Potatoes.....	do.....	3.7	3.9	3.8	+3	-3
Onions.....	do.....	5.8	5.3	5.0	-14	-6
Cabbage.....	do.....	4.2	4.2	4.0	-5	-5
Beans, baked.....	No. 2 can.....	12.3	11.7	11.7	-5	0
Corn, canned.....	do.....	17.4	16.4	16.3	-6	-1
Peas, canned.....	do.....	18.2	17.4	17.4	-4	0
Tomatoes, canned.....	do.....	13.1	11.8	12.1	-8	+3
Sugar, granulated.....	Pound.....	6.8	7.0	7.2	+6	+3
Tea.....	do.....	75.8	77.0	77.3	+2	+0.4
Coffee.....	do.....	51.1	51.0	50.9	-0.4	-0.2
Prunes.....	do.....	17.2	17.1	16.9	-2	-1
Raisins.....	do.....	14.3	14.8	14.8	+3	0
Bananas.....	Dozen.....	35.1	34.4	34.9	-1	+1
Oranges.....	do.....	64.6	50.7	56.0	-13	+1.0
Weighted food index.....					-1.0	+0.9

Table 2 shows for the United States average retail prices of specified food articles on October 15, 1913, and on October 15 of each year from 1920 to 1926, together with percentage changes in October of each of these specified years, compared with October, 1913. For example, the retail price per pound of pork chops was 22.6 cents in October, 1913; 49.9 cents in October, 1920; 36.0 cents in October, 1921; 36.6 cents in October, 1922; 34.2 cents in October, 1923; 37.5 cents in October, 1924; 39.1 cents in October, 1925; and 42.6 cents in October, 1926.

As compared with October, 1913, these prices show increases of 121 per cent in October, 1920; 59 per cent in October, 1921; 62 per cent in October, 1922; 51 per cent in October, 1923; 66 per cent in October, 1924; 73 per cent in October, 1925; and 88 per cent in October, 1926.

The cost of the various articles of food combined showed an increase of 54.1 per cent in October, 1926, as compared with October, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE OCTOBER 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH OCTOBER 15, 1926

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on Oct. 15								Per cent of increase Oct. 15 of each specified year compared with Oct. 15, 1913							
		1913	1920	1921	1922	1923	1924	1925	1926	1920	1921	1922	1923	1924	1925	1926	
Sirloin steak	Pound	25.7	44.5	37.4	38.3	40.1	39.6	41.2	41.5	73	46	49	56	54	60	61	
Round steak	do	23.1	41.9	32.9	33.1	34.4	33.7	35.4	36.0	81	42	43	49	46	53	56	
Rib roast	do	20.0	33.3	27.6	28.0	28.9	28.6	30.0	30.5	67	38	40	45	43	50	53	
Chuck roast	do	16.4	25.9	19.9	19.9	20.8	20.7	22.0	22.8	58	21	21	27	26	34	39	
Plate beef	do	12.3	17.8	13.2	12.8	13.1	13.1	14.1	14.6	45	7	4	7	7	15	19	
Pork chops	do	22.6	49.9	36.0	36.6	34.2	37.5	39.1	42.6	121	59	62	51	66	73	88	
Bacon	do	27.8	54.6	41.2	40.8	39.3	40.1	49.6	51.7	96	48	47	41	44	78	86	
Ham	do	27.6	59.8	48.3	47.6	46.4	47.1	54.3	59.8	117	75	72	68	71	97	17	
Lamb, leg of	do	18.4	37.9	30.0	35.9	36.5	35.9	38.4	38.3	106	63	95	98	95	109	108	
Hens	do	21.2	43.9	37.2	34.8	34.8	35.1	36.5	37.6	107	75	64	64	66	72	77	
Salmon, canned, red	do	13.9	30.4	9.31	6.31	4.31	5.35	5.35	6.6								
Milk, fresh	Quart.	9.0	17.3	14.2	13.3	14.1	13.9	14.3	14.0	92	58	48	57	54	59	56	
Milk, evaporated	( <sup>2</sup> )		15.3	13.4	11.2	12.2	11.0	11.5	11.4								
Butter	Pound	38.2	68.9	53.2	50.8	56.2	47.9	59.4	54.3	80	39	33	47	25	55	42	
Oleomargarine (all butter substitute)	do		38.3	29.2	27.4	28.7	30.0	30.9	30.2								
Cheese	do	22.4	40.6	32.9	34.1	38.5	34.8	37.2	36.7	81	47	52	72	55	66	64	
Lard	do	16.0	29.2	17.2	17.5	18.6	21.4	24.1	21.9	83	8	9	16	34	51	37	
Vegetable lard substitute	do		32.1	21.5	23.2	23.5	25.5	25.9	25.7								
Eggs, strictly fresh	Dozen	41.6	80.8	58.9	54.3	54.6	59.7	60.3	58.1	94	42	31	31	44	45	40	
Eggs, storage	do		64.2	44.1	39.1	41.7	44.1	46.0	45.9								
Bread	Pound	5.6	11.8	9.5	8.7	8.7	8.8	9.4	9.4	111	70	55	55	57	68	68	
Flour	do	3.3	7.8	5.4	4.8	4.6	5.3	5.9	5.7	136	64	45	39	61	79	73	
Corn meal	do	3.1	6.5	4.3	3.9	4.3	5.0	5.3	5.1	110	39	26	39	61	71	65	
Rolled oats	do		11.6	9.8	8.7	8.8	8.9	9.2	9.1								
Corn flakes	( <sup>3</sup> )		14.4	12.0	9.7	9.7	10.5	11.0	10.9								
Wheat cereal	( <sup>4</sup> )		30.4	29.7	25.6	24.4	24.4	25.1	25.4								
Macaroni	Pound		22.0	20.5	19.9	19.7	19.5	20.5	20.2								
Rice	do	8.7	16.1	9.3	9.6	9.6	10.4	11.3	11.6	85	7	10	10	20	30	33	
Beans, navy	do		10.9	8.2	10.1	10.6	10.1	10.0	9.1								
Potatoes	do	1.8	3.4	3.5	2.2	2.9	2.4	3.7	3.8	89	94	22	61	33	106	111	
Onions	do		4.7	6.5	4.4	6.3	5.2	5.8	5.0								
Cabbage	do		3.6	4.8	3.5	4.2	3.9	4.2	4.0								
Beans, baked	( <sup>5</sup> )		16.7	14.0	13.2	12.9	12.6	12.3	11.7								
Corn, canned	( <sup>5</sup> )		18.5	16.1	15.3	15.5	16.3	17.4	16.3								
Peas, canned	( <sup>5</sup> )		19.2	17.9	17.4	17.6	18.2	18.2	17.4								
Tomatoes, canned	( <sup>5</sup> )		14.5	12.9	12.7	12.9	13.5	13.1	12.1								
Sugar, granulated	Pound	5.5	13.9	6.9	7.9	10.6	8.8	6.8	7.2	153	25	44	93	60	24	31	
Tea	do	54.5	72.4	69.1	68.2	70.0	71.8	75.8	77.3	33	27	25	28	32	39	42	
Coffee	do	29.7	43.4	35.6	36.3	37.8	46.1	51.1	50.9	46	20	22	27	55	72	71	
Prunes	do		27.9	19.1	20.6	18.3	17.3	17.2	16.9								
Raisins	do		31.4	27.3	20.7	16.8	15.0	14.3	14.8								
Bananas	Dozen		47.2	38.5	35.6	38.3	36.1	35.1	34.9								
Oranges	do		71.3	56.6	61.1	51.1	50.6	64.6	56.0								
Weighted food index <sup>6</sup>										91.0	46.9	37.2	44.2	43.2	55.5	54.1	

<sup>1</sup> Both pink and red.

<sup>2</sup> 15-16 ounce can.

<sup>3</sup> 8-ounce package.

<sup>4</sup> 28-ounce package.

<sup>5</sup> No. 2 can.

<sup>6</sup> Beginning with January, 1921, index numbers showing the trend in the retail cost of food have been composed of the articles shown in Tables 1 and 2, weighted according to the consumption of the average family. From January, 1913, to December, 1920, the index numbers included the following articles: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

Table 3 shows the changes in the retail prices of each of 22 articles of food for which this information has been secured since 1913, as well as the changes in the amounts of these articles that could be purchased for \$1 in specified years, 1913 to 1925, and in September and October, 1926.

TABLE 3.—AVERAGE RETAIL PRICES OF SPECIFIED ARTICLES OF FOOD AND AMOUNT PURCHASABLE FOR \$1, IN SPECIFIED YEARS, 1913 TO 1925, AND IN SEPTEMBER AND OCTOBER, 1926

Year	Sirloin steak		Round steak		Rib roast		Chuck roast		Plate beef		Pork chops	
	Average retail price	Amt. for \$1										
	Cents per lb.	Lbs.										
1913	25.4	3.9	22.3	4.5	19.8	5.1	16.0	6.3	12.1	8.3	21.0	4.8
1920	43.7	2.3	39.5	2.5	33.2	3.0	26.2	3.8	18.3	5.5	42.3	2.4
1921	38.8	2.6	34.4	2.9	29.1	3.4	21.2	4.7	14.3	7.0	34.9	2.9
1922	37.4	2.7	32.3	3.1	27.6	3.6	19.7	5.1	12.8	7.8	33.0	3.0
1923	39.1	2.6	33.5	3.0	28.4	3.5	20.2	5.0	12.9	7.8	30.4	3.3
1924	39.6	2.5	33.8	3.0	28.8	3.5	20.8	4.8	13.2	7.6	30.8	3.2
1925	40.6	2.5	34.7	2.9	29.6	3.4	21.6	4.6	13.8	7.2	36.6	2.7
1926:												
September	41.9	2.4	36.4	2.7	30.6	3.3	22.7	4.4	14.5	6.9	42.5	2.4
October	41.5	2.4	36.0	2.8	30.5	3.3	22.8	4.4	14.6	6.8	42.6	2.3
	Bacon		Ham		Hens		Milk		Butter		Cheese	
	Cents per lb.	Lbs.	Cents per lb.	Lbs.	Cents per lb.	Lbs.	Cents per qt.	Qts.	Cents per lb.	Lbs.	Cents per lb.	Lbs.
1913	27.0	3.7	26.9	3.7	21.3	4.7	8.9	11.2	38.3	2.6	22.1	4.5
1920	52.3	1.9	55.5	1.8	44.7	2.2	16.7	6.0	70.1	1.4	41.6	2.4
1921	42.7	2.3	48.8	2.0	39.7	2.5	14.6	6.8	51.7	1.9	34.0	2.9
1922	39.8	2.5	48.8	2.0	36.0	2.8	13.1	7.6	47.9	2.1	32.9	3.0
1923	39.1	2.6	45.5	2.2	35.0	2.9	13.8	7.2	55.4	1.8	36.9	2.7
1924	37.7	2.7	45.3	2.2	35.3	2.8	13.8	7.2	51.7	1.9	35.3	2.8
1925	46.7	2.1	52.6	1.9	36.6	2.7	14.0	7.1	54.8	1.8	36.7	2.7
1926:												
September	51.9	1.9	60.4	1.7	37.8	2.6	14.0	7.1	52.5	1.9	36.1	2.8
October	51.7	1.9	59.8	1.7	37.6	2.7	14.0	7.1	54.3	1.8	36.7	2.7
	Lard		Eggs		Bread		Flour		Corn meal		Rice	
	Cents per lb.	Lbs.	Cents per doz.	Dozs.	Cents per lb.	Lbs.						
1913	15.8	6.3	34.5	2.9	5.6	17.9	3.3	30.3	3.0	33.3	8.7	11.5
1920	29.5	3.4	68.1	1.5	11.5	8.7	8.1	12.3	6.5	15.4	17.4	5.7
1921	18.0	5.6	50.9	2.0	9.9	10.1	5.8	17.2	4.5	22.2	9.5	10.5
1922	17.0	5.9	44.4	2.3	8.7	11.5	5.1	19.6	3.9	25.6	9.5	10.5
1923	17.7	5.6	46.5	2.2	8.7	11.5	4.7	21.3	4.1	24.4	9.5	10.5
1924	19.0	5.3	47.8	2.1	8.8	11.4	4.9	20.4	4.7	21.3	10.1	9.9
1925	23.3	4.3	52.1	1.9	9.4	10.6	6.1	16.4	5.4	18.5	11.1	9.0
1926:												
September	22.3	4.5	51.5	1.9	9.4	10.6	5.8	17.2	5.1	19.6	11.7	8.5
October	21.9	4.6	58.1	1.7	9.4	10.6	5.7	17.5	5.1	19.6	11.6	8.6
	Potatoes		Sugar		Tea		Coffee					
	Cents per lb.	Lbs.										
1913	1.7	58.8	5.5	18.2	54.4	1.8	29.8	3.4				
1920	6.3	15.9	19.4	5.2	73.3	1.4	47.0	2.1				
1921	3.1	32.3	8.0	12.5	69.7	1.4	36.3	2.8				
1922	2.8	35.7	7.3	13.7	68.1	1.5	36.1	2.8				
1923	2.9	34.5	10.1	9.9	69.5	1.4	37.7	2.7				
1924	2.7	37.0	9.2	10.9	71.5	1.4	43.3	2.3				
1925	3.6	27.8	7.2	13.9	75.5	1.3	51.5	1.9				
1926:												
September	3.9	25.6	7.0	14.3	77.0	1.3	51.0	2.0				
October	3.8	26.3	7.2	13.9	77.3	1.3	50.9	2.0				

## Index Numbers of Retail Prices of Food in the United States

IN TABLE 4 index numbers are given which show the changes in the retail prices of specified food articles, by years, from 1907 to 1925,<sup>2</sup> and by months for 1925, and for January, through August, 1926. These index numbers, or relative prices, are based on the year 1913 as 100 and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of rib roast for the year 1923 was 143.4, which means that the average money price for the year 1923 was 43.4 per cent higher than the average money price for the year 1913. The relative price of rib roast for the year 1922 was 139.4, which figures show an increase of 4 points, but an increase of slightly less than 3 per cent in the year.

In the last column of Table 4 are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Tables 1 and 2, weighted according to the average family consumption in 1918. (See March, 1921, issue, p. 25.) Although previous to January, 1921, the number of food articles has varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index numbers based on the average for the year 1913 as 100.0 are 158.5 for September and 160.0 for October, 1926.

The curve shown in the chart on page 192 pictures more readily to the eye the changes in the cost of the food budget than do the index numbers given in the table. The chart has been drawn on the logarithmic scale, because the percentages of increase or decrease are more accurately shown than on the arithmetic scale.

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<sup>2</sup>For index numbers of each month, January, 1913, to December, 1920, see February, 1921, issue, pp. 19-21; for each month of 1921 and 1922 see February, 1923, issue, p. 69; and for each month of 1923 and 1924 see February, 1925, issue, p. 21.

TABLE 4.—INDEX NUMBERS SHOWING CHANGES IN THE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, BY YEARS, 1907 TO 1925, AND BY MONTHS FOR 1925 AND JANUARY THROUGH OCTOBER, 1926

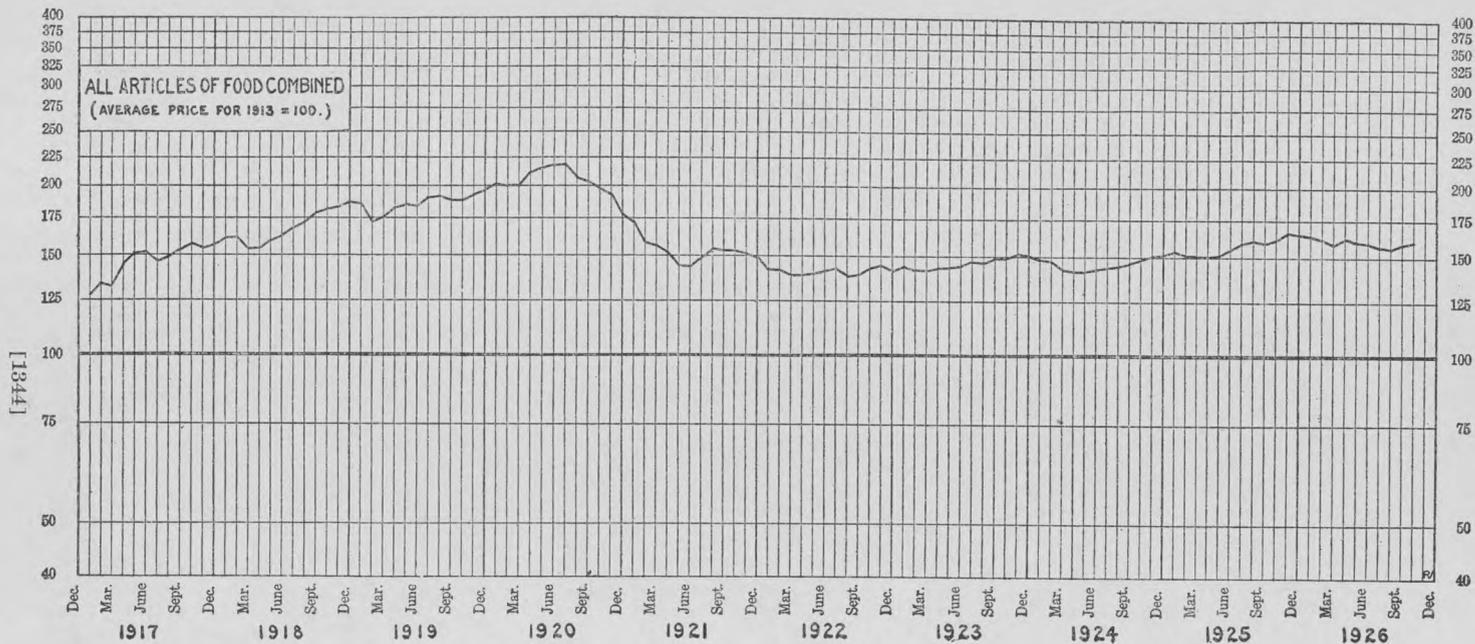
[Average for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Hens	Milk	Butter	Cheese	Lard	Eggs	Bread	Flour	Corn meal	Rice	Potatoes	Sugar	Tea	Coffee	All articles <sup>1</sup>	
1907	71.5	68.0	76.1	-----	-----	74.3	74.4	75.7	81.4	87.2	85.3	-----	80.7	84.1	-----	95.0	87.6	-----	105.3	105.3	-----	-----	82.0	
1908	73.3	71.2	78.1	-----	-----	76.1	76.9	77.6	83.0	89.6	85.5	-----	80.5	86.1	-----	101.5	92.2	-----	111.2	107.7	-----	-----	84.3	
1909	76.6	73.5	81.3	-----	-----	82.7	82.9	82.0	88.5	91.3	90.1	-----	90.1	92.6	-----	109.4	93.9	-----	112.3	106.6	-----	-----	88.7	
1910	80.3	77.9	84.6	-----	-----	91.6	94.5	91.4	93.6	94.6	93.8	-----	103.8	97.7	-----	108.2	94.9	-----	101.0	109.3	-----	-----	93.0	
1911	80.6	78.7	84.8	-----	-----	85.1	91.3	89.3	91.0	95.5	87.9	-----	-----	93.5	-----	101.6	94.3	-----	130.5	111.4	-----	-----	92.0	
1912	91.0	89.3	93.6	-----	-----	91.2	90.5	90.6	93.5	97.4	97.7	-----	-----	98.9	-----	105.2	101.6	-----	132.1	115.1	-----	-----	97.6	
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1914	102.0	105.8	103.0	104.4	104.1	104.6	101.8	101.7	102.2	100.5	94.4	103.6	93.6	102.3	112.5	103.9	105.1	101.2	108.3	108.2	100.4	99.7	102.4	
1915	101.1	103.0	101.4	100.6	100.0	96.4	99.8	97.2	97.5	99.2	93.4	105.0	93.4	98.7	125.0	125.8	108.4	104.3	88.9	120.1	100.2	100.6	101.3	
1916	107.5	109.7	107.4	106.9	106.0	108.3	106.4	109.2	110.7	102.2	103.0	116.7	111.0	108.8	130.4	134.6	112.6	104.6	158.8	136.4	100.4	100.3	113.7	
1917	124.0	129.8	125.5	130.6	129.8	151.7	151.9	142.2	134.5	125.4	127.2	150.4	174.9	139.4	164.3	211.2	192.2	119.6	252.7	179.3	106.9	101.4	146.4	
1918	153.2	165.5	155.1	166.3	170.2	185.7	195.9	178.1	177.0	156.2	157.0	162.4	210.8	164.9	175.0	203.0	226.7	148.3	188.2	176.4	119.1	102.4	168.3	
1919	164.2	174.4	164.1	168.8	166.9	201.4	205.2	198.5	193.0	174.2	170.7	192.8	233.5	182.0	178.6	218.2	213.3	173.6	223.5	205.5	128.9	145.3	185.9	
1920	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	209.9	187.6	183.0	188.2	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4	
1921	152.8	154.3	147.0	132.5	118.2	166.2	158.2	181.4	186.4	164.0	125.1	153.9	113.9	147.5	176.8	175.8	150.0	109.2	182.4	145.5	128.1	321.8	158.3	
1922	147.2	144.8	139.4	123.1	105.8	157.1	147.4	181.4	169.0	147.2	125.0	148.9	107.6	128.7	155.4	154.5	130.0	109.2	164.7	132.7	125.2	321.1	141.6	
1923	153.9	150.2	143.4	126.3	106.6	144.8	144.8	169.1	164.3	155.1	144.7	167.0	112.0	134.8	155.4	142.4	136.7	109.2	170.6	183.6	127.8	126.5	146.2	
1924	155.9	151.6	145.5	130.0	109.1	174.3	139.6	168.4	165.7	155.1	135.0	159.7	120.3	138.6	157.1	148.5	156.7	116.1	158.8	167.3	131.4	145.3	145.9	
1925	159.8	155.6	149.5	135.0	114.1	174.3	173.0	195.5	171.8	157.3	143.1	165.1	147.5	151.0	167.9	184.8	180.0	127.6	211.8	130.9	138.8	172.8	157.4	
1925: January	152.4	147.1	143.9	128.1	109.9	146.2	149.3	177.0	168.1	156.2	136.6	162.4	144.3	204.4	164.3	181.8	180.0	123.0	147.1	147.3	136.4	173.2	154.3	
February	151.6	146.6	143.4	127.5	109.1	144.3	150.4	178.8	169.5	156.2	132.1	164.7	144.3	154.8	169.6	193.9	183.3	124.1	152.9	140.0	137.5	174.8	151.4	
March	155.9	150.7	147.0	131.3	111.6	178.1	164.4	190.3	173.2	155.1	144.9	165.2	146.2	113.3	167.9	193.9	183.3	125.3	147.1	140.0	138.1	175.5	151.1	
April	159.1	155.2	150.0	135.0	114.1	175.2	172.6	198.9	177.9	155.1	139.2	165.2	146.8	110.4	167.9	184.8	183.3	126.4	141.2	136.4	138.8	174.8	159.8	
May	180.6	157.0	150.5	138.1	115.7	171.4	171.9	197.0	177.9	153.9	135.5	164.3	143.0	113.9	167.9	184.8	180.0	126.4	158.8	130.9	139.0	175.2	151.6	
June	161.4	157.8	150.5	136.3	114.0	172.4	174.1	197.0	173.2	153.9	136.7	165.2	144.9	122.6	167.9	184.8	180.0	126.4	205.9	130.9	139.3	170.5	155.0	
July	166.1	163.7	153.5	140.0	115.7	186.7	180.4	202.2	171.8	155.1	138.9	165.6	148.7	133.9	167.9	184.8	180.0	128.7	258.3	129.1	139.3	170.5	159.9	
August	165.4	162.3	153.0	138.1	114.9	190.5	182.6	204.1	170.0	156.2	141.3	168.5	153.8	141.7	167.9	184.8	180.0	129.9	258.8	127.3	139.5	170.8	160.4	
September	163.8	159.6	152.0	137.5	114.9	192.4	183.0	204.1	171.8	159.6	146.7	167.4	151.9	150.4	167.9	184.8	180.0	129.9	211.8	127.3	139.3	171.4	159.0	
October	162.2	158.7	151.5	137.5	116.5	186.2	183.7	201.9	171.4	160.7	155.1	168.3	152.5	174.8	167.9	178.8	176.7	129.9	217.6	123.6	139.2	171.5	161.6	
November	158.7	154.3	149.0	135.0	116.5	178.6	182.2	198.9	168.1	160.7	155.9	169.2	147.5	201.2	167.9	181.8	176.7	131.0	305.9	120.0	139.2	171.8	167.1	
December	158.7	154.3	149.5	135.6	116.5	170.0	180.0	197.4	171.4	160.7	153.0	169.7	143.0	191.9	167.9	184.8	173.3	131.0	305.9	121.8	139.3	172.1	165.5	
1926: January	160.6	160.7	151.5	138.1	119.8	173.8	178.5	198.1	181.2	159.6	146.4	170.1	141.1	156.2	167.9	187.9	173.3	133.3	341.2	121.8	139.9	172.1	164.3	
February	159.8	156.1	148.0	138.1	120.7	172.9	181.1	199.3	182.6	159.6	142.3	169.7	140.5	127.0	167.9	190.9	173.3	133.3	335.3	121.8	139.9	172.1	161.5	
March	160.2	156.5	151.0	138.1	120.7	177.1	179.3	200.7	185.0	157.3	139.9	138.6	111.6	167.9	187.9	173.3	134.5	329.4	121.8	139.9	172.1	159.9		
April	161.8	157.8	152.5	139.4	121.5	182.4	179.6	202.6	190.1	156.2	132.9	165.2	136.1	111.9	167.9	184.8	170.0	134.5	394.1	120.0	140.3	171.5	162.4	
May	163.4	160.5	153.5	140.6	120.7	191.9	182.6	207.8	192.5	156.2	130.3	162.9	136.1	112.8	167.9	184.8	170.0	134.5	352.9	121.8	140.4	171.1	161.1	
June	165.4	162.3	154.5	141.9	120.7	200.0	190.7	221.9	188.7	155.1	131.3	161.5	143.0	118.0	167.9	184.8	170.0	134.5	294.1	125.5	141.4	171.1	159.7	
July	165.4	162.8	155.1	141.9	119.8	198.6	193.7	226.4	184.0	155.1	130.8	161.1	144.9	122.0	167.9	181.8	170.0	134.5	241.2	125.5	141.5	171.5	157.0	
August	164.6	162.3	153.5	140.6	118.2	192.9	192.6	225.7	177.9	156.2	132.1	161.5	143.7	130.1	167.9	181.8	170.0	133.3	211.8	127.3	141.7	171.1	155.7	
September	165.0	163.2	154.5	141.9	119.8	202.4	192.2	224.5	177.5	157.3	137.1	163.3	141.1	149.3	167.9	175.8	170.0	134.5	229.4	127.3	141.5	171.1	158.5	
October	163.4	161.4	154.0	142.5	120.7	202.9	191.5	222.3	176.5	157.3	141.8	166.1	138.6	168.4	167.9	172.7	170.0	133.3	223.5	130.9	142.1	170.8	160.0	

RETAIL PRICES OF FOOD

<sup>1</sup>30 articles in 1907; 15 articles in 1909-1912; 22 articles 1913-1920; 43 articles 1921-1925.

TREND OF RETAIL PRICES OF FOOD IN THE UNITED STATES, JANUARY, 1917, TO OCTOBER, 1926



## Retail Prices of Food in 51

AVERAGE retail food prices are shown in Table 5 for 40 cities 15, 1926. For 11 other cities prices are shown for the same scheduled by the bureau until after 1913.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL  
[Exact comparisons of prices in different cities can not be made for some articles,

Article	Unit	Atlanta, Ga.				Baltimore, Md.				Birmingham, Ala.			
		Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926
		1913	1925			1913	1925			1913	1925		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	24.2	38.3	41.0	41.5	23.5	39.8	40.2	38.8	28.5	39.6	40.7	40.7
Round steak	do	21.3	34.7	37.1	37.6	22.0	35.6	36.7	36.1	23.0	34.8	35.5	35.8
Rib roast	do	19.7	28.2	33.4	33.3	17.3	30.0	30.2	29.9	20.5	28.2	28.3	27.8
Chuck roast	do	15.4	21.3	24.3	25.2	15.3	21.5	22.1	22.0	16.5	22.5	22.9	23.3
Plate beef	do	9.6	12.5	13.5	13.3	12.6	14.6	15.1	15.2	10.4	13.9	13.9	14.8
Pork chops	do	25.0	37.0	38.6	39.2	19.6	40.1	43.3	39.9	24.6	37.0	39.4	40.3
Bacon, sliced	do	32.2	47.6	49.6	50.0	22.5	47.1	47.0	46.9	35.0	48.7	50.6	50.4
Ham, sliced	do	30.8	55.7	61.8	60.8	28.5	56.9	61.8	60.9	32.0	54.2	60.0	59.3
Lamb, leg of	do	20.2	36.4	37.9	38.6	18.0	39.6	40.2	38.4	21.9	37.3	38.5	37.9
Hens	do	20.8	33.0	35.7	38.5	20.8	37.8	39.4	38.3	20.0	35.6	36.8	37.6
Salmon, canned, red	do	34.9	35.1	33.6	---	---	34.8	36.0	34.2	---	35.9	40.7	36.4
Milk, fresh	Quart.	10.6	19.3	18.8	19.0	8.7	13.0	13.0	14.0	10.0	19.0	18.0	18.0
Milk, evaporated	15-16 oz. can	---	13.6	13.8	13.4	---	11.3	11.2	11.2	---	12.6	12.6	12.6
Butter	Pound	39.0	60.3	56.1	56.5	38.8	63.1	56.3	57.9	40.0	61.6	56.4	57.0
Oleomargarine (all butter substitutes).	do	---	32.0	32.0	32.6	---	29.8	30.1	30.1	---	36.2	36.4	36.3
Cheese	do	25.0	35.2	34.9	35.5	23.3	36.4	33.6	34.6	23.0	37.6	35.6	37.1
Lard	do	15.4	23.9	22.6	21.7	14.8	23.8	20.9	20.3	15.2	24.1	23.0	22.5
Vegetable lard substitute	do	---	24.7	24.0	24.3	---	24.9	24.6	24.2	---	22.2	22.0	21.7
Eggs, strictly fresh	Dozen	34.1	48.8	46.3	51.5	36.3	56.5	47.3	54.8	35.0	52.7	47.1	51.8
Eggs, storage	do	---	---	---	---	---	43.1	---	43.3	---	---	---	45.0
Bread	Pound	5.9	10.4	10.7	10.7	5.5	9.4	9.8	9.8	5.4	10.2	10.4	10.3
Flour	do	3.5	6.9	6.6	6.6	3.2	5.5	5.5	5.3	3.6	7.0	6.9	6.8
Corn meal	do	2.7	4.5	4.3	4.3	2.6	4.3	3.8	3.9	2.4	4.5	4.2	4.2
Rolled oats	do	---	9.7	9.7	9.7	---	8.7	8.4	8.3	---	9.7	10.0	10.1
Beans, baked	8-oz. pkg.	---	11.5	11.5	11.5	---	10.2	10.1	10.1	---	12.0	11.9	12.1
Wheat cereal	28-oz. pkg.	---	25.6	26.4	25.6	---	23.7	24.6	24.3	---	25.6	27.0	26.9
Macaroni	Pound	---	21.8	21.7	21.7	---	19.6	19.1	18.6	---	19.1	18.9	18.8
Rice	do	8.6	11.1	12.1	11.9	9.0	10.8	10.7	10.7	8.2	11.9	11.6	11.5
Beans, navy	do	---	11.8	10.5	10.2	---	8.8	7.7	7.9	---	11.7	10.5	10.5
Potatoes	do	2.3	4.8	5.1	4.9	1.8	3.5	4.1	4.1	2.2	5.0	5.4	5.4
Onions	do	---	8.4	7.8	8.0	---	6.0	5.1	4.8	---	7.6	8.0	7.7
Cabbage	do	---	5.9	4.9	4.8	---	3.9	4.0	4.0	---	5.7	5.4	5.4
Beans, baked	No. 2 can.	---	12.3	11.8	11.7	---	11.3	10.5	10.4	---	12.6	11.9	12.0
Corn, canned	do	---	17.8	18.0	17.8	---	15.9	14.9	15.0	---	18.6	18.9	18.3
Peas, canned	do	---	18.6	19.9	20.2	---	16.0	15.3	15.4	---	22.6	21.8	21.6
Tomatoes, canned	do	---	13.0	11.1	10.9	---	10.6	10.0	10.7	---	12.6	11.1	11.4
Sugar, granulated	Pound	5.8	7.1	7.4	7.4	4.9	6.1	6.5	6.5	5.7	7.1	7.5	7.5
Tea	do	60.0	101.1	105.9	104.3	56.0	75.1	74.8	74.2	61.3	92.9	96.0	96.3
Coffee	do	32.0	51.4	51.6	51.8	24.4	48.6	48.0	47.6	28.8	53.9	54.3	54.3
Prunes	do	---	18.2	19.7	17.9	---	15.3	14.2	14.2	---	20.3	20.6	19.3
Raisins	do	---	15.6	18.2	18.3	---	13.1	13.4	13.5	---	15.2	16.1	15.7
Bananas	Dozen	---	28.2	25.5	28.2	---	25.3	25.0	26.3	---	37.6	37.1	37.9
Oranges	do	---	57.1	51.7	53.8	---	66.1	51.7	57.8	---	61.8	51.6	52.3

<sup>1</sup> The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

Cities on Specified Dates

for October 15, 1913 and 1925, and for September 15 and October dates with the exception of October, 1913, as these cities were not

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES

particularly meats and vegetables, owing to differences in trade practices<sup>1</sup>

Boston, Mass.				Bridgeport, Conn.				Buffalo, N. Y.				Butte, Mont.			Charleston, S. C.				
Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15, 1925	Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15, 1925	Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926		
1913	1925						1913	1925						1913	1925			1913	1925
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.		
135.0	168.7	167.0	165.3	50.7	49.3	48.9	22.3	40.1	41.7	40.9	30.1	31.7	30.8	21.8	32.7	33.0	33.3		
35.0	55.9	52.9	51.7	43.2	42.7	42.4	19.3	34.0	35.7	34.6	26.3	27.5	27.4	20.4	30.5	30.5	30.0		
25.6	42.7	39.2	38.9	38.5	36.9	36.7	16.5	30.2	30.4	30.6	25.1	27.2	26.7	20.0	27.3	27.0	25.7		
18.0	29.6	28.2	28.2	29.1	27.5	27.2	15.0	23.1	23.4	23.7	17.6	19.0	19.2	15.0	19.5	18.8	19.1		
-----	20.1	18.4	18.4	12.1	11.9	11.7	11.5	13.9	14.1	14.4	11.5	12.1	12.1	12.1	14.1	14.0	14.0		
24.4	42.7	45.5	46.7	41.5	46.7	46.3	21.0	41.7	45.6	45.2	37.5	41.9	42.2	26.0	37.3	37.5	38.8		
25.4	48.8	49.9	48.6	53.2	55.1	55.3	22.3	46.2	48.1	47.0	57.1	59.3	59.3	26.6	45.4	46.5	45.4		
31.3	60.0	66.3	65.6	58.9	66.0	65.4	26.7	52.6	59.3	59.3	58.2	61.7	61.3	28.8	51.2	55.9	56.8		
-----	39.7	41.1	39.5	39.9	41.0	38.5	15.3	34.7	34.6	34.0	37.4	38.2	37.7	22.5	42.5	42.1	41.9		
20.5	41.6	41.6	41.5	39.9	40.1	40.6	21.0	37.1	37.9	38.3	32.7	34.6	34.5	21.9	36.2	40.9	39.4		
25.6	35.4	35.9	34.9	33.1	34.6	34.1	-----	37.3	36.3	34.5	30.7	32.6	32.5	-----	35.6	36.7	30.4		
8.9	14.8	14.9	14.9	15.0	16.0	16.0	8.0	13.4	13.0	13.0	14.3	14.3	14.3	12.0	18.0	18.0	18.0		
-----	11.9	12.2	12.0	11.5	11.6	11.6	-----	11.4	11.2	11.2	11.0	11.1	10.9	-----	11.8	12.0	11.9		
38.0	59.3	52.5	53.7	58.5	52.2	54.2	37.1	59.5	52.0	54.9	58.3	50.8	50.7	38.2	56.3	49.3	52.3		
-----	29.8	29.3	29.9	29.4	29.8	30.1	-----	29.5	28.2	29.3	32.5	-----	-----	-----	30.7	30.8	31.2		
-----	37.3	37.3	37.6	38.6	40.0	39.5	21.5	38.4	36.5	37.2	37.4	35.7	35.7	21.0	34.5	33.2	33.9		
23.1	24.7	22.2	21.3	24.0	22.1	21.0	14.4	23.1	21.1	20.9	26.9	25.9	25.3	15.3	24.0	23.7	22.9		
15.7	26.1	24.9	24.7	25.4	25.9	25.7	-----	26.4	26.3	26.4	28.2	29.8	29.3	-----	24.1	24.3	23.8		
53.3	85.7	71.3	76.7	79.9	69.3	78.9	36.6	65.2	53.2	60.5	63.8	56.6	61.1	35.0	53.3	53.6	56.7		
-----	51.6	-----	52.4	48.3	-----	50.1	-----	45.1	-----	43.8	42.0	-----	45.0	-----	42.8	-----	43.9		
6.0	9.1	9.1	9.1	9.0	8.8	8.8	5.6	9.0	8.9	8.9	9.7	9.8	9.8	5.9	10.8	10.2	10.2		
3.6	6.5	6.3	6.2	5.8	6.1	5.9	3.0	5.4	5.3	5.1	5.9	5.9	5.7	3.8	7.3	6.9	7.0		
3.5	6.8	6.2	6.2	7.6	8.1	8.0	2.5	5.7	5.2	5.2	6.2	5.8	5.9	2.6	4.1	4.0	3.9		
-----	9.4	9.1	9.3	8.7	8.6	8.4	-----	8.9	8.6	8.7	7.6	7.3	7.3	-----	9.3	9.4	9.5		
-----	11.1	10.8	10.7	10.6	10.5	10.4	-----	10.4	10.2	10.2	12.4	12.2	12.2	-----	11.7	11.8	11.8		
-----	24.9	24.5	24.5	24.9	24.7	24.9	-----	24.1	24.6	24.7	27.5	28.4	28.4	-----	26.0	26.3	26.2		
-----	23.4	22.3	22.6	22.9	22.5	22.7	-----	22.0	21.6	21.4	19.7	18.7	19.1	-----	18.8	18.9	18.5		
-----	9.4	12.3	12.1	12.2	11.1	11.7	9.3	11.0	11.5	11.5	11.9	12.5	12.3	5.6	8.9	9.5	9.0		
-----	11.0	9.8	9.6	10.9	9.3	9.6	-----	9.8	8.8	8.8	11.2	10.4	10.4	-----	10.8	10.3	9.9		
-----	3.8	3.4	3.5	3.7	3.6	3.5	1.7	3.5	3.7	3.5	2.4	2.7	3.0	2.2	3.7	4.4	4.1		
-----	6.0	5.8	5.1	6.1	5.9	5.1	-----	6.8	6.1	5.9	4.7	4.3	3.8	-----	6.1	5.4	5.5		
-----	5.0	5.2	5.2	5.2	4.2	4.5	-----	3.4	3.5	3.2	3.5	4.5	3.8	-----	4.2	4.8	4.3		
-----	13.9	13.0	13.2	11.9	11.5	11.4	-----	10.2	9.8	9.8	15.1	14.5	14.3	-----	10.2	9.7	10.0		
-----	20.0	19.0	18.5	19.6	19.6	19.6	-----	16.9	16.5	16.6	16.3	15.8	16.0	-----	17.0	15.0	14.9		
-----	21.6	20.4	19.9	21.2	21.2	21.0	-----	16.9	16.6	16.5	16.6	14.4	14.0	-----	18.5	17.5	16.7		
-----	13.2	11.9	12.3	13.6	13.2	13.8	-----	14.4	13.0	13.4	14.0	13.3	13.7	-----	10.9	9.9	10.0		
5.4	6.8	6.8	7.0	6.4	6.6	6.8	5.4	6.5	6.7	6.9	8.2	8.4	8.4	5.0	6.3	6.5	6.8		
58.6	75.5	73.3	74.7	61.1	60.3	59.9	45.0	69.3	68.9	70.1	81.8	83.3	83.3	50.0	74.9	73.9	74.9		
33.0	56.0	55.2	55.3	48.4	48.6	48.6	29.3	48.6	49.1	49.1	56.4	57.0	57.0	26.8	46.2	46.6	47.3		
-----	17.0	16.8	16.1	17.7	16.0	16.1	-----	16.4	16.5	16.5	17.5	17.2	19.0	-----	16.5	15.3	15.3		
-----	13.9	13.6	13.9	14.1	14.5	14.8	-----	13.6	14.4	14.3	15.0	15.3	15.2	-----	14.1	14.7	14.8		
-----	41.7	43.9	44.4	34.1	34.0	35.0	-----	41.4	40.7	42.4	2 12.3	2 14.5	2 14.5	-----	40.0	38.6	37.8		
-----	72.9	54.2	62.1	69.2	58.2	66.7	-----	72.6	51.7	56.6	61.5	47.1	48.3	-----	57.5	46.7	44.5		

<sup>1</sup> Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article	Unit	Chicago, Ill.				Cincinnati, Ohio				Cleveland, Ohio			
		Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926
		1913	1925			1913	1925			1913	1925		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	24.8	45.6	44.8	45.6	23.3	35.9	38.9	37.7	25.4	37.7	40.0	39.4
Round steak	do	21.6	36.1	36.9	37.6	21.0	32.8	35.1	34.1	22.9	31.8	34.0	33.4
Rib roast	do	20.1	34.9	35.7	36.6	19.2	28.4	30.8	30.8	18.7	26.2	27.9	27.2
Chuck roast	do	15.8	24.8	25.4	26.0	16.1	19.8	21.9	22.1	16.9	21.1	22.9	22.2
Plate beef	do	12.0	14.3	15.0	15.0	12.2	15.1	15.5	15.4	12.2	13.1	13.0	13.6
Pork chops	do	21.0	35.9	42.9	43.0	23.7	35.1	41.9	42.1	23.0	40.2	45.1	43.7
Bacon, sliced	do	32.7	52.7	55.4	56.3	26.0	43.7	46.5	46.7	28.1	50.7	52.1	51.7
Ham, sliced	do	32.0	53.9	57.8	60.1	30.0	54.7	60.6	60.0	35.7	56.3	63.0	61.6
Lamb, leg of	do	19.8	38.5	40.6	39.7	17.8	35.2	37.8	37.5	18.7	37.2	37.8	37.2
Hens	do	18.4	36.0	37.9	37.5	22.7	34.1	37.2	37.2	20.9	37.2	39.4	37.8
Salmon, canned, red	do	36.8	37.7	38.6	38.6	34.6	37.5	31.3	31.3	35.6	35.9	34.5	34.5
Milk, fresh	Quart	8.0	14.0	14.0	14.0	8.0	12.0	14.0	14.0	8.0	13.8	13.7	14.3
Milk, evaporated	( <sup>2</sup> )	10.9	10.9	11.3	11.3	10.9	10.8	10.9	10.9	11.2	11.1	11.3	11.3
Butter	Pound	35.4	57.5	50.5	53.7	37.8	58.0	50.8	53.0	39.2	61.5	55.5	58.0
Oleomargarine (all butter substitutes)	do	29.5	27.0	27.5	27.5	32.4	30.3	30.2	30.2	32.5	32.2	33.0	33.0
Cheese	do	25.7	41.9	40.9	42.4	21.0	36.4	36.0	36.4	24.0	37.9	36.2	36.9
Lard	do	15.0	23.9	21.9	22.2	14.2	22.8	20.8	20.0	16.4	25.1	23.6	23.2
Vegetable lard substitute	do	26.5	26.3	26.7	26.7	25.7	26.1	25.9	25.9	27.3	27.6	27.4	27.4
Eggs, strictly fresh	Dozen	33.3	56.8	50.5	57.0	32.6	51.7	46.7	52.1	42.7	66.7	55.8	64.9
Eggs, storage	do	45.8	47.0	47.0	47.0	38.6	39.3	39.3	39.3	48.8	45.8	45.8	45.8
Bread	Pound	6.1	9.8	9.8	9.8	4.8	9.2	9.2	9.2	5.6	8.1	7.9	7.9
Flour	do	2.9	5.4	5.4	5.4	3.3	5.9	6.0	6.0	3.1	5.9	6.0	5.8
Corn meal	do	2.8	6.6	6.0	6.5	2.8	4.5	4.0	3.9	3.0	5.4	5.4	5.2
Rolled oats	do	8.5	8.3	8.6	8.6	8.7	8.6	8.7	8.7	9.4	9.5	9.5	9.5
Corn flakes	8-oz. pkg	10.1	10.1	10.1	10.1	10.2	10.4	10.4	10.4	11.3	11.2	11.2	11.2
Wheat cereal	28-oz. pkg	24.4	24.5	25.2	25.2	24.0	24.7	24.4	24.4	24.9	25.2	25.3	25.3
Macaroni	Pound	20.0	19.0	19.7	19.7	20.1	18.2	18.5	18.5	21.4	21.7	22.0	22.0
Rice	do	9.0	11.4	11.6	12.1	8.8	11.1	11.4	11.4	9.0	11.6	11.8	12.0
Beans, navy	do	9.6	9.2	9.5	9.5	8.2	7.5	7.8	7.8	8.9	7.6	7.8	7.8
Potatoes	do	1.7	3.5	3.8	3.7	1.8	3.9	4.3	4.2	1.9	3.3	4.4	4.1
Onions	do	6.0	5.0	5.3	5.3	6.0	4.7	4.6	4.6	5.2	5.3	4.9	4.9
Cabbage	do	3.8	4.1	4.5	4.5	4.1	4.0	4.1	4.1	3.9	4.5	4.5	4.5
Beans, baked	No. 2 can	12.8	12.6	12.8	12.8	11.3	10.7	11.0	11.0	13.2	12.9	12.6	12.6
Corn, canned	do	17.4	16.5	17.1	17.1	15.7	14.8	15.2	15.2	18.1	17.1	16.9	16.9
Peas, canned	do	17.6	16.7	17.5	17.5	18.0	16.7	17.5	17.5	17.9	17.8	17.5	17.5
Tomatoes, canned	do	14.5	14.0	13.9	13.9	13.2	11.5	11.8	11.8	14.3	13.5	13.8	13.8
Sugar, granulated	Pound	5.2	6.5	6.7	6.9	5.4	6.9	7.0	7.2	5.5	7.0	7.1	7.3
Tea	do	55.0	74.3	73.2	74.5	60.0	76.7	77.7	78.1	50.0	79.2	79.0	78.6
Coffee	do	30.7	51.3	51.2	50.8	25.6	45.6	46.4	46.1	26.5	53.8	54.7	55.0
Prunes	do	18.3	18.4	18.8	18.8	17.5	17.1	17.2	17.2	17.4	17.5	16.7	16.7
Raisins	do	15.2	15.4	15.4	15.4	14.2	15.2	15.3	15.3	14.2	14.9	14.8	14.8
Bananas	Dozen	40.8	40.0	40.5	40.5	37.5	36.3	36.7	36.7	50.0	46.0	50.0	50.0
Oranges	do	69.6	53.2	61.3	61.3	62.2	47.7	56.4	56.4	70.5	53.5	63.6	63.6

<sup>1</sup> The steak for which prices are here quoted is called "rump" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

RETAIL PRICES OF FOOD

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Columbus, Ohio			Dallas, Tex.					Denver, Colo.					Detroit, Mich.				Fall River, Mass.			
Oct. 15, 1925	Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926		
			1913	1925			1913	1925			1913	1925			1913	1925				
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.		
38.7	40.7	40.6	23.3	33.6	36.3	36.2	23.9	30.9	34.9	33.6	25.4	40.8	43.0	42.0	135.3	161.9	160.9	160.7		
33.5	36.1	35.9	21.3	30.6	33.0	32.9	21.4	26.6	31.6	30.2	20.8	33.8	35.3	34.5	28.0	46.6	46.5	46.5		
29.5	30.8	30.9	20.1	27.7	27.4	27.8	17.8	22.0	24.3	24.0	20.0	29.9	30.5	30.1	23.3	31.3	31.8	31.2		
23.5	24.6	24.8	16.9	21.6	23.5	23.1	15.8	17.2	19.7	19.5	15.4	22.5	23.0	22.9	18.0	22.9	22.4	22.5		
15.8	16.0	15.4	13.6	15.4	18.2	17.8	10.0	9.9	11.1	11.1	11.0	13.5	14.2	14.3	-----	13.1	13.9	13.7		
36.7	39.5	39.7	22.5	38.7	38.2	38.3	20.8	36.6	39.4	40.6	21.6	41.0	46.4	45.7	23.2	39.4	40.8	43.9		
49.9	53.6	53.3	38.3	49.2	49.7	46.1	28.0	50.8	52.6	53.3	23.5	51.8	54.7	54.7	25.7	46.6	46.5	46.5		
53.9	58.8	58.8	32.5	55.8	63.2	62.8	31.7	56.1	61.5	60.8	27.0	58.0	65.0	64.6	31.2	52.2	58.4	58.4		
40.8	44.6	41.7	23.3	44.9	44.3	43.6	14.6	35.8	37.8	35.8	16.4	41.4	41.2	39.9	18.3	41.3	42.2	42.3		
36.0	37.1	37.7	19.3	30.5	31.1	32.3	19.4	28.7	30.2	29.8	19.8	38.1	39.7	39.2	24.6	42.3	43.0	43.0		
38.3	39.8	36.8	-----	38.2	40.2	39.0	-----	38.2	35.5	34.5	-----	37.7	37.7	37.0	-----	35.1	38.8	38.3		
11.0	12.0	12.0	11.6	15.0	12.0	12.0	8.4	12.0	12.0	12.0	9.0	14.0	14.0	14.0	9.0	14.0	14.4	14.3		
11.3	11.3	11.4	-----	13.2	13.0	13.0	-----	11.2	10.8	10.7	-----	11.0	11.2	11.2	-----	12.5	12.7	12.8		
58.1	51.1	53.6	42.5	57.6	52.8	53.0	39.0	56.1	44.9	49.0	37.0	58.8	53.1	54.9	35.9	56.9	51.3	52.1		
31.0	29.7	29.9	-----	33.3	33.9	33.9	-----	29.7	29.0	29.0	-----	30.5	28.6	28.9	-----	31.6	30.4	30.4		
37.5	35.2	35.9	20.0	37.5	34.9	36.1	26.1	39.3	37.0	37.4	21.7	37.9	37.9	38.1	23.6	39.5	37.9	38.4		
22.6	20.1	19.6	16.8	25.9	25.7	25.6	16.1	24.7	22.8	22.6	16.5	24.7	22.6	22.1	15.3	23.8	21.3	21.3		
25.9	26.0	26.2	-----	24.6	25.2	24.0	-----	25.0	25.2	24.3	-----	27.1	27.1	27.1	-----	27.6	26.7	26.7		
51.3	42.8	49.2	-----	52.6	45.3	48.0	37.1	55.0	46.1	55.6	35.6	60.7	48.0	56.9	52.7	84.3	68.2	73.9		
48.0	-----	40.3	-----	-----	-----	-----	-----	43.1	-----	43.9	-----	43.2	-----	43.4	-----	49.4	-----	49.2		
8.1	8.1	8.1	5.3	8.5	9.5	9.5	5.5	8.4	8.3	8.3	5.6	8.7	8.2	8.2	6.2	9.1	9.2	9.2		
6.1	5.6	5.5	3.2	5.8	5.6	5.7	2.6	5.1	4.6	4.5	3.1	5.9	5.7	5.6	3.3	6.2	6.3	6.0		
4.3	3.7	3.6	3.3	4.8	4.5	4.4	2.6	4.4	4.2	4.0	2.8	5.9	5.8	5.9	3.7	7.5	6.7	6.7		
9.4	9.4	9.3	-----	10.7	10.2	10.2	-----	8.6	8.5	8.3	-----	9.7	9.4	9.3	-----	9.7	9.4	9.4		
10.8	10.8	10.8	-----	11.2	11.2	11.1	-----	11.9	11.1	11.1	-----	10.7	10.6	10.6	-----	11.7	11.3	11.3		
24.4	25.0	24.5	-----	27.0	27.6	27.6	-----	25.2	24.8	24.9	-----	25.1	25.9	25.8	-----	26.5	25.3	25.3		
22.8	21.7	20.1	-----	21.3	21.4	21.6	-----	18.8	20.3	19.7	-----	21.7	22.3	22.4	-----	24.6	24.5	24.5		
12.4	13.6	13.5	9.3	12.5	12.9	12.5	8.6	11.7	11.2	10.6	8.4	11.9	12.7	13.4	10.0	11.3	11.9	11.6		
9.0	7.7	7.7	-----	12.2	10.5	10.1	-----	11.1	9.9	9.6	-----	8.9	8.3	8.6	-----	10.6	9.7	9.8		
3.5	4.2	3.9	2.5	5.2	5.3	5.3	1.4	3.2	3.1	3.3	1.6	2.7	3.6	3.2	1.8	3.6	3.2	3.5		
6.9	5.5	4.8	-----	7.4	6.0	6.5	-----	5.1	4.3	3.7	-----	5.3	4.9	4.6	-----	6.2	5.3	4.9		
4.5	4.5	4.5	-----	5.8	5.3	5.4	-----	3.2	2.2	2.4	-----	3.4	4.1	3.9	-----	4.6	3.6	3.9		
13.1	12.1	12.1	-----	14.5	13.4	13.3	-----	14.1	11.8	11.4	-----	11.8	11.7	11.6	-----	12.4	12.4	12.4		
17.0	15.7	14.4	-----	19.1	17.9	17.8	-----	16.7	14.8	14.8	-----	17.0	16.5	16.6	-----	17.5	16.6	16.6		
16.3	15.1	15.1	-----	21.8	21.4	21.9	-----	16.8	15.7	15.8	-----	17.2	17.3	17.2	-----	19.1	18.5	18.5		
14.5	12.7	12.5	-----	14.0	12.3	12.5	-----	14.1	12.3	12.1	-----	13.8	11.7	11.8	-----	13.1	11.9	12.0		
7.4	7.2	7.2	5.8	7.6	7.8	6.8	5.4	7.2	7.5	7.6	5.4	6.9	7.2	7.3	5.3	6.7	6.8	7.0		
85.2	89.3	89.3	66.7	103.5	104.7	104.7	52.8	67.6	69.5	69.3	43.3	72.7	74.4	75.3	44.2	63.1	59.9	60.7		
52.2	51.6	51.6	36.7	59.6	60.3	60.3	29.4	51.6	51.6	51.0	29.3	51.4	52.1	52.0	33.0	53.3	52.7	52.5		
17.5	17.4	18.5	-----	20.6	21.1	21.5	-----	19.1	18.4	18.3	-----	18.7	19.2	19.2	-----	15.8	15.7	15.7		
14.6	15.2	15.0	-----	16.2	16.5	16.7	-----	14.5	14.7	14.5	-----	14.6	15.8	15.4	-----	14.3	14.5	14.0		
37.5	37.2	38.9	-----	32.0	33.8	36.3	-----	211.7	210.8	211.5	-----	33.8	33.9	34.8	-----	29.7	29.4	29.6		
64.9	48.8	54.8	-----	65.2	54.0	57.5	-----	63.3	42.5	50.0	-----	73.2	52.6	58.0	-----	57.2	49.5	56.4		

<sup>2</sup> Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article	Unit	Houston, Tex.			Indianapolis, Ind.				Jacksonville, Fla.			
		Oct. 15, 1925	Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926
					1913	1925	1926			1913	1925	1926
Sirloin steak	Pound	30.8	33.8	33.8	26.0	37.9	39.1	39.3	25.5	26.4	37.3	37.5
Round steak	do	29.6	32.0	32.7	24.7	36.3	38.2	38.2	21.0	30.0	32.3	32.3
Rib roast	do	23.7	27.1	26.8	17.8	28.3	29.4	29.4	21.3	26.5	29.1	28.6
Chuck roast	do	19.2	21.0	20.5	16.3	23.7	24.7	24.7	14.6	19.4	20.9	20.6
Plate beef	do	15.9	17.3	17.3	12.9	14.7	15.4	15.3	11.6	12.2	12.5	12.5
Pork chops	do	39.3	37.9	39.3	22.2	38.2	41.9	42.9	24.0	35.7	39.4	39.5
Bacon, sliced	do	50.1	51.8	52.1	29.7	46.8	49.0	49.0	31.0	47.1	49.4	50.0
Ham, sliced	do	52.3	57.1	57.1	31.2	55.9	62.1	61.4	30.2	53.6	58.0	59.5
Lamb, leg of	do	36.0	35.7	35.0	20.7	40.0	42.5	41.7	21.6	26.7	38.8	39.5
Hens	do	35.7	40.5	39.9	21.0	35.8	39.8	38.7	23.8	38.5	39.3	41.0
Salmon, canned, red	do	32.9	36.4	34.1	---	32.1	35.8	35.8	---	32.5	38.4	38.0
Milk, fresh	Quart	17.3	15.6	15.6	8.0	11.8	12.0	12.0	12.3	22.0	22.0	22.3
Milk, evaporated	15-16 oz. can	11.7	11.5	11.5	---	10.6	10.8	10.8	---	12.0	11.9	12.1
Butter	Pound	58.4	52.2	54.4	36.8	58.4	50.5	54.1	39.3	58.7	54.0	55.0
Oleomargarine (all butter substitutes)	do	31.0	29.7	29.9	---	32.2	30.5	30.4	---	31.2	32.1	32.4
Cheese	do	34.7	31.9	33.2	21.3	37.4	35.1	35.9	22.5	34.9	34.4	35.2
Lard	do	24.2	22.6	22.3	15.0	23.0	20.1	19.8	15.8	24.1	24.0	22.9
Vegetable lard substitute	do	17.8	21.0	19.0	---	26.9	26.8	26.8	---	24.6	25.0	24.4
Eggs, strictly fresh	Dozen	47.1	41.8	47.4	32.2	50.2	43.5	48.1	40.0	69.3	59.5	71.0
Eggs, storage	do	40.0	---	40.7	---	45.0	---	40.0	---	48.0	---	49.3
Bread	Pound	8.9	8.8	8.8	5.1	8.1	8.1	8.1	6.2	11.0	11.0	11.0
Flour	do	6.0	5.8	5.7	3.2	5.8	5.7	5.6	3.7	6.8	6.9	6.9
Corn meal	do	4.9	4.2	4.1	2.5	4.6	4.2	4.2	2.9	4.2	4.3	4.2
Rolled oats	do	9.2	8.9	8.9	---	8.2	8.1	8.1	---	9.5	9.8	9.6
Corn flakes	8-oz. pkg	12.0	11.8	11.8	---	10.2	10.1	10.1	---	11.6	11.2	11.2
Wheat cereal	28-oz. pkg	25.4	25.6	25.6	---	24.8	25.1	25.3	---	24.8	24.6	24.9
Macaroni	Pound	19.2	18.4	18.4	---	20.6	19.2	19.2	---	20.6	20.0	20.2
Rice	do	9.7	9.9	9.8	9.2	11.5	12.1	12.1	6.6	10.8	11.2	10.8
Beans, navy	do	11.1	9.5	9.2	---	8.9	7.7	8.1	---	10.9	10.3	9.9
Potatoes	do	5.2	4.7	4.9	1.7	3.2	4.5	3.8	2.5	4.5	5.1	4.9
Onions	do	6.0	4.9	5.4	---	6.2	5.1	5.1	---	8.0	7.4	7.3
Cabbage	do	5.3	4.9	4.8	---	4.2	4.3	4.0	---	6.6	5.4	5.5
Beans, baked	No. 2 can	12.5	11.1	11.1	---	11.8	10.6	10.4	---	11.3	11.4	11.4
Corn, canned	do	17.5	14.9	14.6	---	16.7	15.0	14.4	---	19.4	20.7	20.0
Peas, canned	do	17.3	13.6	14.0	---	16.7	15.2	14.6	---	19.7	19.6	19.8
Tomatoes, canned	do	12.0	10.1	11.0	---	14.4	11.3	11.7	---	11.3	10.4	11.2
Sugar, granulated	Pound	6.6	7.0	7.0	5.7	6.9	7.3	7.4	5.9	7.0	7.3	7.4
Tea	do	74.2	82.8	82.8	60.0	78.8	86.7	87.8	60.0	95.3	101.6	100.9
Coffee	do	45.4	45.6	45.1	30.0	51.2	51.1	51.1	34.5	51.8	50.3	50.3
Prunes	do	16.7	16.3	16.8	---	19.1	19.3	19.3	---	18.4	18.3	18.7
Raisins	do	14.9	14.7	14.4	---	15.5	15.9	15.9	---	15.3	16.4	16.1
Bananas	Dozen	31.1	28.3	29.2	---	29.6	31.4	31.4	---	28.6	29.2	32.0
Oranges	do	50.7	39.8	46.0	---	59.1	48.3	52.7	---	49.3	95.3	43.8

<sup>1</sup> The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Kansas City, Mo.				Little Rock, Ark.				Los Angeles, Calif				Louisville, Ky.				Manchester, N. H.				
Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	
1913	1925		1913	1925		1913	1925	1913	1925		1913	1925	1913	1925		1913	1925	1913	1925	
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
24.9	39.1	39.6	39.2	25.0	33.3	34.2	24.0	38.1	36.8	36.3	23.0	32.5	36.4	35.3	37.0	58.4	58.1	56.7	56.7	
22.3	32.0	34.8	34.1	20.0	29.5	31.6	21.0	30.2	30.3	29.7	20.0	28.8	32.3	32.4	29.5	46.3	47.1	45.3	45.3	
18.0	26.3	27.2	27.2	22.0	26.4	27.3	19.4	29.1	29.6	29.6	18.2	24.1	26.6	26.6	20.5	28.4	30.2	28.1	28.1	
15.6	19.6	20.0	20.0	17.5	21.0	22.2	15.8	19.3	20.3	20.2	15.9	18.5	19.4	19.8	17.0	22.9	23.9	23.3	23.3	
12.2	12.6	13.1	13.0	12.5	14.8	15.5	13.3	13.8	13.8	14.0	13.1	14.8	16.4	15.8	---	15.9	16.7	16.0	16.0	
23.1	37.2	42.8	42.6	21.3	35.0	37.6	25.4	47.3	47.3	46.7	21.9	33.5	38.9	39.1	22.8	38.5	41.8	43.3	43.3	
31.3	52.0	52.4	52.7	36.7	50.6	54.3	33.1	58.2	62.1	60.7	29.5	48.8	52.0	52.2	23.5	43.5	42.8	43.0	43.0	
29.4	55.0	60.8	61.2	30.0	51.3	53.9	35.0	68.3	71.8	71.4	29.0	47.7	55.7	55.7	29.0	47.7	51.3	49.5	49.5	
18.3	33.7	35.0	34.8	18.8	41.7	39.5	40.1	37.8	36.8	36.2	18.2	36.3	39.2	39.3	20.0	37.7	39.0	38.3	38.3	
16.1	31.5	32.9	33.6	19.0	32.4	29.7	30.7	42.2	44.6	44.3	21.8	36.8	38.0	36.9	24.5	42.0	44.1	43.8	43.8	
---	37.4	38.8	37.5	---	38.5	36.1	35.6	---	35.1	34.4	32.7	---	31.9	38.2	35.3	---	37.7	37.0	36.1	
9.3	13.0	13.0	13.0	10.0	15.3	15.0	10.0	15.0	15.0	15.0	8.8	14.0	13.0	12.0	8.0	14.0	14.0	14.0	14.0	
---	11.9	11.7	11.8	---	12.4	11.9	11.9	---	10.2	10.2	10.2	---	12.0	11.9	11.7	---	13.1	12.9	12.8	
38.8	58.1	51.0	52.3	45.0	58.9	51.7	53.3	39.5	65.2	54.4	54.0	39.2	59.9	53.2	55.9	42.0	58.4	53.3	54.1	
---	27.3	27.7	27.6	---	29.1	30.2	30.1	---	32.6	31.6	31.5	---	32.1	31.4	31.3	---	27.5	26.3	26.3	
21.8	36.7	35.7	35.9	23.3	37.6	34.3	36.3	19.5	39.2	39.4	39.3	2.25	36.5	36.9	37.1	22.0	37.8	36.5	36.3	
16.4	24.2	22.9	22.3	16.5	24.3	24.0	23.8	17.9	25.4	24.0	23.9	16.1	23.2	21.8	21.0	16.3	23.3	21.4	20.7	
---	27.8	27.3	27.8	---	28.9	24.1	24.0	---	25.6	26.0	25.6	---	28.2	30.6	30.8	---	26.3	26.0	25.6	
35.0	47.8	42.1	47.3	35.0	51.0	44.4	45.7	52.5	65.5	54.0	62.8	30.0	49.7	45.1	49.4	47.3	73.1	63.7	71.6	
---	41.0	---	42.0	---	43.3	---	40.0	---	50.7	---	49.4	---	44.0	---	41.0	---	50.6	---	49.0	
6.0	9.7	9.8	9.8	6.0	8.8	9.5	9.5	6.0	9.3	8.6	8.6	5.7	9.3	9.3	9.3	5.9	8.7	8.7	8.7	
3.0	5.9	5.6	5.4	3.6	6.6	6.4	6.3	3.4	5.5	5.4	5.4	3.5	6.6	6.1	6.0	3.4	6.1	6.0	5.9	
2.8	5.4	4.9	4.8	2.8	4.2	4.1	4.1	3.4	5.6	5.4	5.5	2.4	4.2	3.7	3.8	3.5	5.4	5.3	5.3	
---	9.2	9.4	9.4	---	10.4	10.8	10.6	---	9.9	10.2	10.2	---	8.6	8.4	8.5	---	8.7	9.0	9.0	
---	12.4	12.0	11.2	---	12.3	12.1	11.9	---	10.1	10.1	10.1	---	10.7	10.6	10.8	---	11.5	11.1	11.1	
---	26.1	26.9	26.7	---	24.6	25.7	25.7	---	24.5	25.0	25.1	---	24.2	26.5	26.1	---	25.0	25.6	25.4	
---	21.1	20.3	20.2	---	20.9	20.4	20.3	---	17.4	18.3	18.1	---	18.4	18.6	18.6	---	24.2	24.2	24.0	
8.7	10.5	11.8	10.9	8.3	10.7	10.2	9.8	7.7	11.2	11.1	11.0	8.7	11.5	11.5	11.3	8.8	10.9	11.0	10.8	
---	9.8	9.2	9.2	---	9.8	9.5	9.7	---	10.3	8.9	9.0	---	8.3	7.9	7.4	---	9.5	8.9	8.9	
1.9	3.7	3.7	3.7	2.4	4.3	4.6	4.6	1.7	4.1	3.8	3.8	2.2	4.0	4.1	3.9	1.6	3.2	3.0	3.3	
---	6.8	5.4	5.3	---	7.2	6.3	5.9	---	5.8	4.7	4.7	---	6.8	5.4	5.8	---	4.8	4.6	4.6	
---	4.4	3.7	3.7	---	4.7	4.4	4.5	---	4.3	4.3	3.9	---	5.2	4.8	4.5	---	3.3	4.1	4.1	
---	13.6	12.7	12.7	---	11.9	10.8	11.0	---	11.6	11.3	11.4	---	11.1	10.3	10.2	---	14.3	13.7	14.0	
---	16.2	15.2	15.0	---	17.4	16.6	16.5	---	17.3	16.2	16.5	---	18.2	15.1	15.6	---	18.5	17.4	17.4	
---	16.6	15.6	15.7	---	19.2	18.7	18.7	---	18.5	17.7	17.6	---	17.5	16.3	16.3	---	20.0	19.1	19.5	
---	13.5	12.3	12.3	---	12.7	10.6	10.8	---	15.9	15.4	15.0	---	12.5	10.0	10.7	---	13.9	11.7	12.1	
5.7	7.2	7.4	7.3	5.5	7.2	7.7	7.9	5.5	6.5	6.7	6.8	5.4	7.1	7.3	7.4	5.3	6.7	7.7	7.4	
54.0	79.0	86.4	86.7	50.0	102.2	107.9	106.3	54.5	76.5	75.8	75.5	65.0	76.3	85.5	86.9	47.5	62.1	62.7	62.7	
27.8	52.5	54.4	53.8	30.8	56.1	53.9	53.6	36.3	53.3	53.6	53.7	27.5	51.0	50.9	51.3	32.0	52.5	52.2	52.4	
---	17.5	18.2	18.2	---	18.1	18.2	18.7	---	16.1	16.8	16.5	---	18.3	17.9	16.7	---	15.6	15.8	15.9	
---	15.5	15.0	15.1	---	16.1	15.6	15.6	---	12.0	13.2	13.1	---	14.9	15.5	15.7	---	14.3	14.3	14.4	
---	10.7	10.2	10.9	---	8.9	9.5	9.8	---	9.7	9.7	10.1	---	37.0	36.3	35.0	---	8.3	9.3	9.5	
---	60.0	47.2	54.1	---	59.3	48.4	60.7	---	61.5	44.5	45.4	---	62.1	45.9	51.0	---	60.9	54.1	60.9	

<sup>1</sup> No. 2½ can.

<sup>2</sup> Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article	Unit	Memphis, Tenn.				Milwaukee, Wis.				Minneapolis, Minn.			
		Oct. 15—		Sept.	Oct.	Oct. 15—		Sept.	Oct.	Oct. 15—		Sept.	Oct.
		1913	1925	15, 1926	15, 1926	1913	1925	15, 1926	15, 1926	1913	1925	15, 1926	15, 1926
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	24.0	35.0	36.7	36.3	23.6	38.2	39.1	39.3	23.0	31.5	32.8	30.7
Round steak	do	20.0	32.3	34.0	32.9	21.6	33.9	34.8	34.9	21.3	28.4	30.7	29.0
Rib roast	do	21.0	25.8	27.3	27.3	18.8	28.1	28.7	28.1	20.0	24.7	26.4	25.6
Chuck roast	do	15.4	18.9	19.1	20.2	16.4	23.5	24.4	24.7	17.0	18.6	20.8	20.8
Plate beef	do	11.9	14.3	14.8	16.3	12.1	14.2	14.4	14.6	10.1	10.9	12.6	12.4
Pork chops	do	20.5	34.0	36.3	38.2	21.2	37.5	43.2	41.3	20.8	35.7	39.4	39.4
Bacon, sliced	do	31.0	44.7	45.3	44.6	28.6	48.0	51.8	52.4	27.7	50.3	52.8	52.5
Ham, sliced	do	29.0	51.3	58.8	57.9	29.0	50.3	56.2	54.7	32.7	52.3	60.4	57.5
Lamb, leg of	do	20.0	37.5	40.0	40.7	19.5	37.9	38.6	38.5	14.8	34.4	35.1	35.2
Hens	do	19.5	34.0	31.4	31.6	18.8	31.2	33.6	33.5	17.2	30.8	30.8	31.1
Salmon, canned, red	do	---	32.4	35.4	34.0	---	31.3	34.0	33.8	---	35.2	39.6	39.7
Milk, fresh	Quart.	10.0	15.3	15.0	15.0	7.0	10.0	11.0	11.0	8.0	12.0	11.0	11.0
Milk, evaporated	15-16 oz. can	---	11.4	11.5	11.4	---	11.4	11.1	11.2	---	12.0	11.6	11.5
Butter	Pound	38.8	56.0	51.3	52.1	35.0	56.7	49.8	52.8	35.5	55.6	49.7	52.4
Oleomargarine (all butter substitutes)	do	---	26.1	26.1	25.4	---	30.0	27.5	27.5	---	28.4	28.4	28.1
Cheese	do	20.8	33.9	33.3	33.9	22.0	34.8	34.0	35.1	20.8	36.4	33.8	35.1
Lard	do	16.3	21.8	19.4	18.8	15.8	24.4	22.3	22.0	15.7	23.1	20.8	20.5
Vegetable lard substitute	do	---	24.2	23.5	22.2	---	26.9	26.7	26.8	---	27.4	27.3	27.2
Eggs, strictly fresh	Dozen	29.6	46.7	42.8	46.8	35.0	52.2	41.6	53.2	34.0	48.5	42.6	47.1
Eggs, storage	do	---	41.0	---	---	---	41.8	---	41.6	---	42.0	---	41.0
Bread	Pound	6.0	9.7	9.6	9.6	5.7	9.0	9.0	9.0	5.6	10.0	9.3	8.9
Flour	do	3.5	6.8	6.3	6.2	3.0	5.3	5.3	5.3	2.8	5.4	5.5	5.5
Corn meal	do	2.5	3.9	3.7	3.9	3.7	5.5	5.3	5.5	2.5	5.5	5.3	5.3
Roiled oats	do	---	9.5	9.4	9.1	---	8.7	8.5	8.5	---	8.4	8.4	8.4
Corn flakes	8-oz. pkg	---	11.2	11.1	10.9	---	10.5	10.4	10.3	---	10.9	10.7	10.7
Wheat cereal	28-oz. pkg	---	25.5	25.6	25.6	---	24.2	24.4	24.5	---	25.7	25.3	25.6
Macaroni	Pound	---	19.6	19.6	19.2	---	18.6	17.9	18.0	---	18.6	19.3	18.9
Rice	do	8.1	10.3	10.6	10.3	9.0	11.5	11.9	11.8	8.6	11.6	11.9	11.7
Beans, navy	do	---	9.5	9.4	9.3	---	9.1	8.2	8.3	---	9.5	9.0	9.0
Potatoes	do	2.1	4.0	4.4	4.5	1.6	2.4	3.5	3.4	1.3	2.7	3.1	3.2
Onions	do	---	5.3	5.3	4.8	---	4.8	5.0	4.6	---	5.1	5.0	4.6
Cabbage	do	---	3.8	4.0	3.7	---	2.9	3.6	3.1	---	3.9	3.6	3.2
Beans, baked	No. 2 can	---	12.0	11.8	11.9	---	11.4	11.0	11.0	---	13.1	12.3	12.3
Corn, canned	do	---	16.8	16.1	15.6	---	16.9	15.6	15.6	---	16.5	15.4	14.6
Peas, canned	do	---	18.4	17.2	17.1	---	16.9	16.4	16.3	---	16.1	15.3	14.8
Tomatoes, canned	do	---	12.1	10.6	10.4	---	14.7	13.3	13.4	---	14.5	13.6	13.5
Sugar, granulated	Pound	5.6	7.0	7.0	7.0	5.5	6.4	6.7	6.9	5.6	6.8	7.3	7.2
Tea	do	63.8	97.2	96.7	99.0	50.0	71.8	70.8	70.8	45.0	62.1	60.0	60.6
Coffee	do	27.5	51.1	51.0	50.2	27.5	47.4	47.1	46.9	30.8	54.2	53.9	53.9
Prunes	do	---	17.1	17.5	17.3	---	17.3	16.9	16.9	---	17.2	16.9	17.0
Raisins	do	---	14.6	15.6	15.4	---	14.5	14.8	14.7	---	14.3	15.1	14.9
Bananas	Dozen	---	33.0	31.7	30.0	---	<sup>2</sup> 9.2	<sup>2</sup> 9.4	<sup>2</sup> 9.8	---	<sup>2</sup> 10.9	<sup>2</sup> 11.1	<sup>2</sup> 11.3
Oranges	do	---	65.5	46.2	51.6	---	66.0	49.2	54.2	---	62.2	49.2	56.2

1 Whole.

RETAIL PRICES OF FOOD

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Mobile, Ala.			Newark, N. J.						New Haven, Conn.						New Orleans, La.				New York, N. Y.					
Oct. 15, 1925	Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926		
			1913	1925			1913	1925			1913	1925			1913	1925			1913	1925				
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	
32.5	35.0	34.1	27.7	47.2	46.5	46.2	31.8	55.1	53.8	54.2	21.5	34.3	36.0	35.8	26.1	47.6	46.4	45.8						
31.3	34.0	33.6	27.7	44.8	43.2	43.3	29.6	44.6	43.7	43.7	19.0	29.9	31.8	31.5	25.5	44.8	44.5	44.1						
26.3	28.0	28.6	21.0	36.8	35.8	35.6	24.2	36.1	36.1	35.8	18.4	29.1	30.0	30.1	21.6	40.8	39.3	39.2						
20.8	22.0	22.5	18.6	25.7	25.0	24.5	20.0	27.6	27.3	26.9	15.5	20.5	21.3	20.7	16.0	26.2	25.3	25.1						
16.1	17.0	17.1	12.0	13.8	13.3	13.1	-----	14.7	15.5	15.8	11.2	16.8	17.5	17.5	14.8	21.0	20.0	20.0						
39.2	40.5	41.4	24.0	39.5	44.5	42.2	23.6	40.6	43.8	46.8	25.0	37.9	39.7	39.9	22.9	42.6	46.3	45.7						
44.9	51.3	51.9	25.8	45.1	49.2	48.9	29.7	50.5	51.8	51.7	30.4	47.1	50.6	51.4	25.7	50.0	52.2	51.5						
50.7	55.5	56.5	20.8	54.7	58.1	56.9	32.8	58.1	63.8	63.8	26.0	50.4	57.6	55.6	29.5	59.5	65.4	64.6						
38.8	40.0	41.7	19.0	38.5	39.7	38.7	18.3	39.7	40.8	39.9	21.0	40.2	39.7	39.1	15.2	37.0	37.7	36.6						
36.4	37.2	37.7	23.0	37.6	38.6	38.1	23.5	42.2	42.5	42.3	21.0	36.3	38.2	37.1	21.8	39.3	40.3	40.4						
35.3	40.6	39.3	-----	34.3	36.7	34.7	-----	32.4	35.3	33.7	-----	37.3	39.5	38.7	-----	34.3	36.2	34.2						
17.8	17.8	17.8	9.0	15.0	15.0	15.0	9.0	16.0	16.0	16.0	9.5	14.0	14.0	14.0	9.0	15.0	15.0	15.0						
12.1	11.7	11.7	-----	11.2	11.2	11.2	-----	12.1	11.9	12.0	-----	11.1	11.0	11.0	-----	11.2	11.1	11.1						
60.3	53.3	56.3	39.2	60.8	53.5	56.2	36.8	58.2	51.1	53.9	37.5	57.9	51.7	53.6	37.5	60.5	53.5	55.8						
30.5	30.6	30.8	-----	31.3	30.5	30.3	-----	33.3	30.9	31.8	-----	31.9	30.5	30.7	-----	30.1	30.2	30.7						
35.7	35.7	36.9	24.8	39.7	39.8	39.5	23.5	38.6	38.1	38.4	21.4	35.7	35.2	36.0	19.8	37.7	37.8	38.0						
23.8	21.8	21.3	16.3	24.4	22.4	22.1	15.7	24.6	22.2	21.7	14.9	23.0	21.8	21.4	16.3	24.7	22.3	21.7						
21.5	21.8	21.2	-----	26.3	25.7	25.7	-----	25.8	25.9	25.5	-----	22.8	21.9	20.8	-----	25.8	26.2	26.6						
50.0	52.6	60.0	52.7	74.8	61.8	70.8	52.9	79.4	67.1	77.2	34.3	50.0	45.0	50.2	47.9	72.8	64.0	72.4						
43.3	-----	49.3	-----	46.8	-----	47.3	-----	47.6	-----	51.0	-----	28.3	-----	41.2	-----	48.5	-----	47.7						
9.6	9.6	9.6	5.6	9.1	9.3	9.3	6.0	8.9	9.2	9.2	5.0	8.9	8.9	8.9	6.0	9.6	9.6	9.6						
6.7	6.5	6.4	3.6	5.8	5.8	5.8	3.2	5.9	6.0	5.7	3.8	7.4	7.0	7.0	3.2	6.1	5.7	5.6						
4.2	3.9	3.9	3.6	6.5	6.6	6.6	3.2	6.9	6.7	6.7	2.9	4.5	4.0	3.9	3.5	6.5	6.4	6.2						
8.9	8.7	8.7	-----	8.4	8.5	8.4	-----	9.1	9.3	9.3	-----	9.0	8.9	8.9	-----	8.7	8.6	8.5						
11.3	11.3	11.1	-----	10.1	10.0	10.0	-----	10.9	10.8	10.7	-----	10.5	10.1	10.3	-----	10.0	10.0	10.0						
24.3	25.1	25.0	-----	24.0	24.3	24.3	-----	24.6	24.6	24.6	-----	24.6	24.4	24.4	-----	23.8	24.0	23.9						
20.6	20.9	20.6	-----	21.1	21.1	20.6	-----	22.9	21.9	22.0	-----	9.6	9.9	10.0	-----	21.3	20.9	20.9						
10.4	11.3	11.3	9.0	10.8	11.3	11.1	9.3	11.8	11.9	11.9	7.5	9.8	9.9	9.8	8.0	10.5	10.9	10.6						
10.0	8.9	9.0	-----	10.1	9.4	9.6	-----	9.9	9.5	9.6	-----	9.2	8.3	8.3	-----	11.3	10.2	10.3						
4.3	4.9	4.9	2.5	4.1	3.5	4.2	1.7	3.7	3.5	3.5	2.1	4.1	4.5	4.5	2.4	4.1	3.6	4.1						
5.7	5.3	5.0	-----	5.4	5.9	4.9	-----	6.1	5.7	5.4	-----	5.2	3.9	4.1	-----	5.8	5.6	4.8						
4.8	4.8	4.6	-----	4.5	4.1	4.4	-----	4.9	4.3	4.0	-----	4.4	4.2	3.9	-----	4.2	3.8	3.9						
11.1	10.9	10.9	-----	11.5	10.7	10.7	-----	11.6	11.5	11.0	-----	11.4	10.9	11.0	-----	11.5	10.6	10.8						
18.2	17.5	17.3	-----	16.8	16.6	16.6	-----	19.2	18.8	19.0	-----	15.6	15.1	15.2	-----	16.5	14.9	14.8						
16.7	16.2	16.2	-----	17.8	17.8	17.3	-----	20.7	20.2	20.1	-----	17.6	17.0	17.6	-----	16.7	15.4	15.3						
12.0	10.8	10.8	-----	11.6	10.9	11.3	-----	13.1	12.5	12.7	-----	12.1	10.3	11.1	-----	11.8	10.4	10.9						
6.6	7.0	7.2	5.2	6.3	6.4	6.7	5.5	6.6	6.7	7.0	5.1	5.9	6.4	6.6	4.9	5.9	6.2	6.4						
79.7	79.8	79.8	53.8	62.2	63.5	63.5	55.0	58.5	60.7	60.4	62.1	82.2	82.0	83.3	43.3	64.1	64.6	64.9						
51.6	50.3	50.1	29.3	49.2	49.8	49.8	33.8	53.0	52.9	52.9	25.0	37.5	36.5	36.2	27.2	47.5	47.2	47.6						
17.6	18.4	18.2	-----	16.2	15.5	15.2	-----	17.5	16.9	16.4	-----	18.4	18.4	18.3	-----	16.1	15.6	15.1						
14.3	14.6	15.1	-----	13.6	14.6	14.9	-----	14.0	14.0	14.0	-----	13.9	14.1	14.5	-----	14.3	14.7	14.9						
22.1	21.4	21.7	-----	38.4	38.1	38.1	-----	33.8	34.2	34.2	-----	17.9	16.4	18.6	-----	37.8	37.3	38.7						
50.0	45.5	48.4	-----	70.3	54.4	63.5	-----	66.1	52.2	61.8	-----	58.8	45.0	57.0	-----	82.3	61.3	69.7						

\*Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article	Unit	Norfolk, Va.			Omaha, Nebr.				Peoria, Ill.		
		Oct. 15, 1925	Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15, 1925	Sept. 15, 1926	Oct. 15, 1926
					1913	1925					
Sirloin steak	Pound	Cts. 40.7	Cts. 42.0	Cts. 41.5	Cts. 25.6	Cts. 38.4	Cts. 38.4	Cts. 33.4	Cts. 34.3	Cts. 35.6	Cts. 35.4
Round steak	do	34.6	35.4	35.4	22.8	34.3	36.2	35.8	33.4	34.1	33.8
Rib roast	do	32.6	32.4	32.0	19.4	27.2	26.2	26.7	23.8	25.3	25.0
Chuck roast	do	22.3	23.6	22.9	16.1	21.4	21.7	22.1	20.4	21.7	21.3
Plate beef	do	16.2	16.0	15.6	11.8	11.7	12.3	12.4	13.4	14.7	14.4
Pork chops	do	36.1	39.9	39.6	21.9	38.6	40.9	42.0	35.2	38.1	38.5
Bacon, sliced	do	48.2	50.1	50.5	28.6	52.5	55.3	54.8	51.0	53.0	52.0
Ham, sliced	do	45.4	53.2	52.0	30.0	56.6	62.4	62.4	52.9	58.6	57.5
Lamb, leg of	do	40.2	41.1	38.3	16.3	38.5	36.5	36.6	37.5	40.7	38.7
Hens	do	36.8	37.9	38.5	16.3	30.8	32.6	31.7	31.5	34.8	33.7
Salmon, canned, red	do	33.1	37.9	36.9		37.5	38.6	37.4	37.3	38.1	36.7
Milk, fresh	Quart	17.0	17.5	17.5	8.2	12.1	11.3	11.3	12.0	11.7	12.0
Milk, evaporated	15-16 oz. can	11.5	11.1	11.5		11.7	11.6	11.6	11.7	11.5	11.5
Butter	Pound	59.7	54.9	56.7	37.0	54.6	49.1	50.5	55.3	48.1	49.9
Oleomargarine (all butter substitutes)	do	27.6	28.6	28.0		30.2	30.2	29.9	31.5	30.0	29.6
Cheese	do	34.4	33.7	33.6	23.3	36.8	34.7	35.5	35.5	35.7	35.1
Lard	do	23.1	21.6	20.6	17.6	26.2	24.1	24.1	24.1	23.0	22.6
Vegetable lard substitute	do	22.5	23.2	23.5		26.2	27.9	27.8	27.3	26.9	27.0
Eggs, strictly fresh	Dozen	55.4	48.1	56.8	30.0	43.8	39.6	45.6	47.7	41.4	45.8
Eggs, storage	do	44.8		48.0		41.0		41.5	43.8		42.0
Bread	Pound	9.5	9.9	9.9	5.2	9.8	10.2	10.3	10.0	10.1	10.1
Flour	do	6.1	5.9	5.9	2.7	5.3	5.0	5.0	5.8	5.8	5.6
Corn meal	do	4.7	4.4	4.6	2.5	5.0	5.0	4.9	5.1	4.7	4.9
Rolled oats	do	8.6	8.7	8.8		10.4	10.3	10.3	9.3	9.1	9.1
Corn flakes	8-oz. pkg	10.4	10.3	10.3		12.5	12.5	12.5	12.1	11.9	11.8
Wheat cereal	28-oz. pkg	23.9	24.2	24.2		26.7	28.3	28.3	25.3	25.3	25.6
Macaroni	Pound	19.3	19.3	19.0		21.6	21.1	21.1	21.1	20.0	19.9
Rice	do	11.5	12.0	12.1	8.5	10.6	11.7	11.5	11.8	12.1	11.7
Beans, navy	do	9.5	8.0	8.2		10.1	9.7	9.5	8.9	8.4	8.6
Potatoes	do	4.0	4.4	4.4	1.8	3.7	3.6	3.7	3.5	3.6	3.8
Onions	do	6.4	5.7	5.2		5.9	5.7	5.2	6.4	6.2	5.8
Cabbage	do	4.2	4.6	4.6		4.2	3.6	3.6	3.6	3.4	3.3
Beans, baked	No. 2 can	10.1	9.9	10.0		14.6	13.6	14.0	11.7	12.2	12.2
Corn, canned	do	16.7	16.4	15.8		17.0	16.2	15.9	16.5	15.3	15.7
Peas, canned	do	21.3	21.9	20.6		17.1	15.8	15.8	18.8	18.0	18.3
Tomatoes, canned	do	10.6	9.7	10.1		15.3	13.7	13.7	15.2	13.7	13.6
Sugar, granulated	Pound	6.2	6.6	6.7	5.8	7.2	7.3	7.3	7.5	7.5	7.6
Tea	do	92.0	91.1	93.2	56.0	76.8	78.8	78.8	62.9	67.9	68.6
Coffee	do	49.8	51.1	50.1	30.0	57.5	57.5	57.5	52.1	51.9	52.1
Prunes	do	16.2	15.7	15.8		18.0	17.8	17.0	19.6	20.2	19.5
Raisins	do	14.0	14.7	14.6		16.2	15.9	15.4	14.9	15.6	15.0
Bananas	Dozen	35.0	33.5	33.9		4 10.3	4 11.6	4 11.5	4 9.1	4 9.8	4 10.2
Oranges	do	63.6	55.0	58.1		54.1	45.1	50.9	62.7	44.9	49.2

<sup>1</sup> The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

RETAIL PRICES OF FOOD

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Philadelphia, Pa.				Pittsburgh, Pa.				Portland, Me.			Portland, Oreg.				Providence, R. I.				
Oct. 15—		Sept. 15,	Oct. 15,	Oct. 15—		Sept. 15,	Oct. 15,	Oct. 15,	Sept. 15,	Oct. 15,	Oct. 15—		Sept. 15,	Oct. 15,	Oct. 15—		Sept. 15,	Oct. 15,	
1913	1925	1926	1926	1913	1925	1926	1926	1925	1926	1926	1913	1925	1926	1926	1913	1925	1926	1926	
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
31.2	155.6	156.0	156.1	27.7	46.6	47.2	47.7	161.6	163.2	162.6	23.5	28.6	29.3	29.6	140.2	173.3	170.9	169.8	
26.4	42.0	43.5	42.0	23.7	39.0	40.2	40.1	46.8	47.7	47.3	21.0	25.7	26.6	26.9	31.6	51.2	49.6	49.4	
22.1	37.3	36.6	36.6	21.7	33.1	34.1	34.2	30.6	30.3	29.9	19.6	24.5	25.5	24.9	24.2	40.3	38.5	38.1	
18.2	23.8	26.6	26.1	17.8	24.3	25.1	25.5	21.4	21.6	21.6	16.9	16.7	17.9	18.3	18.8	29.7	28.7	28.3	
11.5	11.7	12.9	12.7	12.8	12.4	12.7	13.5	16.6	16.4	16.4	13.8	12.1	12.7	13.2	20.1	18.1	17.9	17.9	
23.3	42.7	47.9	46.8	23.2	41.0	44.7	45.2	42.1	43.5	44.5	23.4	38.8	41.2	41.1	22.0	43.8	47.7	47.8	
27.5	48.5	49.8	49.2	30.6	52.0	56.6	56.5	45.9	46.9	47.1	31.5	53.9	58.2	58.1	22.2	47.4	47.3	46.6	
31.9	59.9	62.8	61.9	29.9	59.3	66.0	65.7	55.1	62.8	61.6	30.8	53.6	59.4	60.3	33.3	57.2	64.9	64.3	
19.1	40.2	40.7	40.0	20.0	40.3	40.5	40.5	37.3	39.8	36.7	16.9	34.7	35.2	35.5	18.7	41.4	42.4	40.9	
23.1	40.5	41.4	41.1	25.5	42.0	42.1	41.4	40.8	42.6	42.0	21.3	31.7	34.2	33.8	24.8	42.7	42.6	42.4	
8.0	36.2	37.1	33.5	35.7	38.4	34.5	37.8	38.9	37.8	37.8	9.7	33.5	38.3	36.2	34.8	37.8	37.8	36.7	
43.1	62.9	56.3	58.1	39.5	60.4	54.1	57.1	60.0	53.3	54.9	42.0	60.9	53.1	53.4	38.6	57.9	52.4	53.6	
32.1	30.7	30.8	30.8	32.8	31.0	31.1	29.1	28.2	28.3	28.3	30.4	30.3	30.3	29.9	29.9	29.5	29.5	29.5	
25.0	39.2	39.2	39.6	24.5	38.9	38.0	38.6	37.9	37.7	38.1	20.8	38.4	37.8	38.2	22.0	36.4	36.2	36.5	
15.6	24.2	22.1	21.7	15.7	23.9	22.6	22.2	24.2	21.4	20.6	18.3	25.6	24.3	24.3	15.7	23.8	21.1	21.3	
42.5	66.7	54.3	62.6	38.0	60.0	51.2	58.3	75.8	64.0	68.8	49.0	55.7	46.9	53.3	53.0	79.6	70.2	76.9	
46.7	47.4	47.4	44.7	44.8	44.8	51.2	48.2	48.2	48.2	48.2	48.0	48.0	45.0	45.0	49.1	48.0	48.0	48.0	
4.8	9.3	9.5	9.5	5.5	9.3	9.3	9.3	10.0	10.1	10.1	5.6	9.6	9.4	9.5	5.9	9.2	9.2	9.2	
3.2	5.8	5.8	5.5	3.2	5.8	5.6	5.5	5.9	5.8	5.7	2.9	5.2	5.1	5.2	3.5	6.3	6.1	6.1	
2.8	5.2	4.8	4.8	3.0	5.8	6.2	6.3	5.4	5.1	5.1	3.4	5.7	5.0	3.1	5.1	5.1	5.1	5.1	
8.7	8.6	8.7	9.3	9.3	9.3	9.3	7.5	8.0	8.0	8.0	10.3	10.1	10.4	9.1	9.1	9.1	9.2	9.2	
10.0	10.1	10.1	10.5	10.5	10.4	11.6	11.6	11.6	11.6	11.6	11.2	11.3	11.4	10.7	10.8	10.8	10.8	10.8	
24.4	24.4	24.6	25.3	25.2	25.1	25.7	25.9	25.9	25.9	25.9	26.4	26.9	26.8	24.3	25.4	25.5	25.5	25.5	
21.5	20.7	21.0	23.3	23.1	23.3	25.0	24.9	24.6	24.6	24.6	18.0	17.3	18.0	23.8	23.4	23.3	23.3	23.3	
9.8	12.0	12.4	12.3	9.2	11.9	12.8	13.0	12.4	13.0	13.1	8.6	11.4	11.0	10.9	9.3	11.1	11.8	11.9	
2.3	9.6	8.7	9.0	9.3	8.2	8.2	10.2	9.5	9.5	9.5	11.0	9.9	9.9	10.3	9.3	9.3	9.6	9.6	
5.5	4.5	4.4	4.4	1.9	3.4	4.0	3.7	3.4	3.1	3.2	1.3	2.9	2.6	2.4	1.7	3.7	3.4	3.4	
5.3	4.1	4.3	5.0	5.2	5.0	5.2	4.7	3.6	4.0	3.7	2.8	4.2	3.5	4.0	3.3	3.6	3.6	3.6	
10.9	10.5	10.5	12.8	12.5	12.7	15.2	15.0	14.8	14.8	14.8	14.6	13.4	13.3	11.8	11.2	11.2	11.2	11.2	
15.8	15.0	14.6	17.4	16.2	16.6	17.6	16.7	16.1	16.7	16.1	20.5	18.4	18.8	18.5	17.8	17.7	17.7	17.7	
15.6	15.2	15.5	18.1	17.0	17.2	19.5	18.6	19.0	19.0	19.0	19.6	18.7	18.6	19.9	19.6	19.5	19.5	19.5	
12.1	11.3	11.6	13.5	12.4	12.4	22.6	22.0	22.0	22.0	22.0	31.7	31.6	31.6	14.0	13.6	13.6	13.6	13.6	
5.0	6.2	6.6	6.7	5.7	6.9	7.1	7.2	6.6	6.8	7.0	6.2	6.8	7.2	7.2	5.1	6.5	6.7	6.9	
54.0	70.2	72.2	72.1	58.0	82.0	85.2	85.8	61.1	61.6	61.9	55.0	75.2	75.8	76.9	48.3	60.8	61.8	61.1	
24.5	45.3	46.1	45.6	30.0	51.1	51.5	51.3	54.5	53.8	53.8	35.0	52.4	52.8	52.6	30.0	53.8	53.5	53.6	
14.9	14.7	14.7	18.5	18.7	18.5	15.7	15.4	15.1	15.1	15.1	12.8	13.3	10.5	17.5	16.5	16.5	16.5	16.5	
13.3	13.9	14.2	14.2	14.2	14.7	14.8	12.9	13.6	13.7	13.7	13.5	13.9	13.9	13.9	13.9	14.3	14.3	14.3	
32.2	30.4	30.1	38.7	40.6	39.2	49.8	40.8	40.8	40.8	40.8	41.3	42.6	42.9	31.4	33.1	33.1	33.8	33.8	
68.8	53.9	60.8	62.7	52.0	59.0	72.4	61.0	64.1	64.1	64.1	59.2	45.5	51.0	73.0	61.3	66.3	66.3	66.3	

<sup>2</sup> No. 3 can.

<sup>3</sup> No. 2½ can.

<sup>4</sup> Per pound.

## MONTHLY LABOR REVIEW

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL

Article	Unit	Richmond, Va.				Rochester, N. Y.				St. Louis, Mo.			
		Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15, 1925	Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	
		1913	1925						1913	1925			
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	
Sirloin steak	Pound	22.2	39.9	39.6	39.8	42.4	42.1	41.8	26.0	38.3	37.7	37.6	
Round steak	do	20.0	34.7	35.1	35.4	35.6	35.4	35.2	24.3	35.5	36.3	36.2	
Rib roast	do	18.9	31.4	31.5	32.2	30.7	30.4	30.6	19.5	30.2	30.3	30.6	
Chuck roast	do	15.9	22.7	22.9	23.2	25.6	24.8	25.0	15.6	21.8	21.0	21.6	
Plate beef	do	12.6	15.8	15.9	16.1	13.9	14.0	14.3	11.9	14.2	14.1	15.1	
Pork chops	do	22.0	40.5	43.6	43.3	44.1	45.9	45.9	19.8	34.3	39.8	38.7	
Bacon, sliced	do	27.2	46.7	48.6	48.6	45.0	47.6	46.5	26.9	46.8	48.8	48.9	
Ham, sliced	do	25.0	44.5	49.0	48.5	62.9	60.2	58.7	27.3	51.5	59.1	58.8	
Lamb, leg of	do	19.3	45.7	45.6	45.3	38.3	38.3	37.5	18.3	37.7	37.5	38.1	
Hens	do	20.4	35.4	35.5	37.0	41.0	41.6	41.5	16.8	32.6	34.6	33.7	
Salmon, canned, red	do		34.8	36.8	36.2	36.9	36.8	34.2		38.0	37.9	36.5	
Milk, fresh	Quart	10.0	14.0	14.0	14.0	12.5	12.5	12.5	8.8	13.0	13.0	13.0	
Milk, evaporated	15-16 oz. can		12.7	12.6	12.6	11.5	11.6	11.6		10.6	10.3	10.3	
Butter	Pound		40.2	62.3	57.2	58.5	59.1	51.5	53.5	37.9	60.2	53.6	
Oleomargarine (all butter substitutes)	do		31.0	31.9	32.0	32.0	30.8	30.6		27.6	27.7	27.7	
Cheese	do		22.3	36.9	35.8	35.9	38.4	35.0	36.0	19.5	35.8	33.7	
Lard	do		15.4	23.2	21.9	21.0	23.2	20.8	20.5	13.1	20.6	18.6	
Vegetable lard substitute	do			26.1	25.9	25.5	24.8	24.6	24.1		26.6	26.0	
Eggs, strictly fresh	Dozen		34.5	51.4	46.9	51.5	61.6	55.6	63.9	31.0	48.6	42.9	
Eggs, storage	do			44.3		43.0	45.9		50.0		39.8		
Bread	Pound		5.4	9.4	9.4	9.5	8.9	8.9	9.0	5.6	9.9	9.8	
Flour	do		3.2	6.0	6.0	5.9	5.9	5.8	5.7	2.9	5.7	5.4	
Corn meal	do		2.3	5.0	4.6	4.6	6.6	5.6	5.6	2.5	4.6	4.3	
Rolled oats	do			9.3	9.1	9.0	9.4	9.4	9.2		8.9	8.7	
Corn flakes	8-oz. pkg			11.3	10.8	11.3	10.4	10.3	10.1		10.2	10.1	
Wheat cereal	28-oz. pkg.			25.7	25.8	25.8	25.0	25.4	25.4		24.2	24.4	
Macaroni	Pound			21.1	20.2	20.2	21.8	21.0	21.0		21.5	21.1	
Rice	do		10.0	12.7	13.2	13.3	11.4	10.8	10.9	8.2	10.5	10.8	
Beans, navy	do			10.2	9.3	9.1	10.1	8.9	8.9		8.5	7.9	
Potatoes	do		2.1	4.5	4.6	4.9	3.1	3.7	2.8	1.9	3.9	4.3	
Onions	do			7.0	6.7	7.1	5.4	5.3	4.7		6.0	5.2	
Cabbage	do			4.8	4.8	4.6	2.8	3.2	4.0		3.4	3.5	
Beans, baked	No. 2 can			10.8	10.1	10.1	10.9	10.4	10.4		11.2	10.6	
Corn, canned	do			16.2	15.4	15.6	17.3	16.1	16.1		16.4	15.9	
Peas, canned	do			20.5	20.3	20.1	18.9	18.4	18.4		16.8	16.5	
Tomatoes, canned	do			12.1	10.1	10.5	14.0	13.8	13.4		12.9	11.1	
Sugar, granulated	Pound		5.4	6.7	6.9	7.1	6.1	6.4	6.7	5.3	6.8	7.1	
Tea	do		56.0	89.1	91.4	90.5	66.6	68.7	68.7	55.0	70.5	73.6	
Coffee	do		27.4	49.9	49.5	49.4	49.5	47.9	47.9	24.4	48.9	48.3	
Prunes	do			18.6	17.9	17.2	18.7	16.9	16.7		19.5	18.4	
Raisins	do			14.4	14.8	14.8	13.9	14.3	14.3		14.4	15.0	
Bananas	Dozen			36.5	37.7	37.3	37.7	37.7	36.3		33.1	32.9	
Oranges	do			66.9	55.0	56.2	65.8	52.4	52.3		59.6	48.0	

1 No. 2½ can.

RETAIL PRICES OF FOOD

ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

St. Paul, Minn.				Salt Lake City, Utah				San Francisco, Calif.				Savannah, Ga.			Scranton, Pa.				
Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15, 1926	Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	
1913	1925			1913	1925			1913	1925			1925	1926	1926	1913	1925			
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
26.4	35.1	37.0	36.6	22.6	28.5	30.9	30.8	21.4	31.9	31.5	31.4	31.3	34.6	34.2	26.0	52.6	51.4	51.6	
23.0	29.3	31.9	31.9	20.0	25.8	27.3	27.4	19.7	28.7	28.9	28.6	25.8	28.8	27.9	22.0	44.7	42.6	43.0	
20.4	28.0	30.3	29.3	19.4	21.9	23.6	22.8	21.3	30.3	29.4	29.4	25.0	28.8	27.5	23.0	37.6	37.5	37.8	
16.8	22.5	23.9	23.3	15.0	17.0	17.9	17.8	15.2	19.3	18.8	18.9	15.7	18.7	18.8	17.6	29.5	27.7	28.2	
10.8	12.1	13.2	13.2	12.5	11.6	12.5	13.1	14.2	15.1	14.4	14.2	13.8	14.8	14.0	11.9	13.0	11.9	12.4	
20.4	34.8	38.2	38.7	24.3	39.1	40.7	41.1	24.2	45.6	46.6	47.0	34.8	36.2	37.1	22.8	44.5	47.2	47.4	
27.0	48.2	50.3	49.8	30.0	48.5	53.0	53.0	34.4	62.2	65.0	64.3	45.2	47.1	46.8	27.5	50.6	54.1	53.9	
28.8	50.4	56.6	55.3	30.0	52.0	61.0	60.3	34.0	63.8	69.5	67.9	45.0	51.1	50.0	30.0	59.2	64.1	62.7	
16.1	33.0	34.2	33.9	16.9	34.6	34.3	33.6	16.7	39.6	37.8	37.6	44.0	41.0	39.0	17.3	45.3	45.9	44.7	
18.0	30.3	30.8	30.2	23.3	29.8	32.9	33.0	24.5	41.7	44.1	44.7	35.9	35.5	35.8	21.8	44.1	45.1	44.9	
---	35.7	39.1	38.4	---	35.4	36.2	37.0	---	33.1	33.5	32.4	33.6	39.1	38.1	---	34.3	36.2	36.4	
7.8	12.0	11.0	11.0	8.7	11.5	11.3	11.3	10.0	14.0	14.0	14.0	17.5	17.0	17.0	8.8	12.0	12.0	12.0	
---	11.9	11.9	11.7	---	10.6	10.6	10.5	---	10.3	10.2	10.2	11.2	11.2	11.1	---	11.9	11.6	11.7	
36.5	53.5	49.0	50.6	39.0	59.4	49.0	48.9	40.0	67.4	54.8	55.2	61.6	54.5	56.1	36.6	57.5	51.6	53.2	
---	28.5	27.5	27.9	---	29.7	30.2	29.7	---	31.3	31.4	31.4	36.0	34.6	35.0	---	32.0	29.2	30.3	
21.0	35.0	33.9	34.6	24.2	31.3	29.5	29.9	21.0	38.9	38.5	38.7	35.4	35.2	35.2	18.3	36.0	35.1	35.8	
15.3	23.4	21.5	21.0	20.0	25.5	24.8	24.9	18.0	26.1	25.3	25.0	21.8	21.6	21.1	16.0	24.8	22.4	22.2	
---	28.1	27.1	27.3	---	29.6	29.9	30.0	---	27.8	28.2	28.0	19.2	20.3	19.1	---	27.3	26.3	26.2	
32.3	46.3	41.8	46.6	42.0	53.9	44.8	51.5	56.4	63.8	53.5	61.0	62.4	54.6	57.6	45.8	63.4	54.1	58.6	
---	40.5	---	41.3	---	50.0	---	---	---	50.2	---	50.2	45.4	---	46.7	---	48.1	---	45.9	
6.0	10.2	9.9	9.9	5.9	10.8	9.9	9.9	5.9	9.9	9.8	9.8	10.2	10.4	10.5	5.6	10.3	10.4	10.4	
2.9	5.7	5.8	5.7	2.4	4.8	4.2	4.3	3.4	6.0	5.7	5.7	7.0	6.8	6.7	3.6	6.2	6.4	6.3	
2.5	5.6	5.3	5.3	3.4	5.4	5.6	5.5	3.5	5.9	6.3	6.3	3.9	3.7	3.6	---	7.4	7.8	7.9	
---	10.1	9.9	9.9	---	8.8	8.9	8.9	---	9.7	9.5	9.7	9.0	8.8	8.7	---	10.1	10.0	10.0	
---	12.2	11.9	11.9	---	12.3	12.5	12.5	---	10.6	10.5	10.5	10.6	10.2	10.2	---	11.1	10.9	10.9	
---	25.6	26.7	27.0	---	25.3	25.5	25.5	---	25.0	25.9	25.3	24.9	24.4	24.4	---	26.2	25.6	25.6	
---	19.0	18.7	18.5	---	19.6	20.2	20.2	---	14.5	16.2	16.0	18.1	18.2	18.3	---	23.6	23.6	23.6	
10.0	11.1	12.2	12.6	8.2	11.9	11.2	11.2	8.5	11.4	12.0	11.8	9.9	10.5	10.5	8.5	11.0	11.8	11.6	
---	9.6	9.3	9.2	---	10.6	9.4	9.3	---	10.5	9.5	9.5	11.3	10.5	10.4	---	12.3	10.9	10.8	
1.3	2.7	3.1	3.0	1.4	2.7	2.6	2.7	1.8	3.9	3.5	3.7	4.2	4.9	4.5	1.9	3.3	3.6	3.6	
---	5.5	5.2	4.8	---	3.5	2.7	2.5	---	4.2	4.0	3.6	6.9	6.7	6.2	---	5.7	5.1	4.9	
---	3.5	3.4	2.4	---	3.0	3.1	2.7	---	---	---	---	5.2	4.6	4.9	---	3.2	3.4	3.3	
---	14.0	13.7	13.9	---	14.5	14.3	14.2	---	14.1	13.5	13.3	11.9	12.1	12.5	---	11.4	11.1	11.1	
---	15.4	15.3	15.0	---	16.9	15.3	15.2	---	18.8	18.2	18.2	17.0	15.6	15.3	---	17.5	17.4	17.4	
---	16.4	15.9	15.6	---	16.4	15.9	16.1	---	19.0	18.6	18.5	16.8	16.6	16.6	---	19.3	17.8	17.8	
---	14.6	14.1	14.3	---	16.1	14.7	14.5	---	116.0	115.3	115.3	11.1	10.0	10.2	---	13.2	12.2	12.3	
5.6	7.2	7.6	7.5	5.8	7.5	7.8	7.9	5.4	6.4	6.9	6.8	6.5	6.9	6.9	5.5	6.8	6.8	7.1	
45.0	72.9	69.9	68.1	65.7	85.6	88.3	88.3	50.0	68.0	68.8	71.0	80.1	82.5	81.3	52.5	66.7	67.3	67.6	
30.0	52.3	52.8	52.8	35.8	56.8	56.7	56.4	32.0	52.0	53.5	53.7	48.8	48.3	48.1	31.3	53.1	52.4	52.4	
---	17.2	16.7	16.4	---	15.8	15.2	14.9	---	14.5	15.2	14.8	15.9	15.9	15.6	---	18.3	17.7	18.4	
---	14.9	15.8	15.7	---	13.3	14.5	14.2	---	12.6	13.1	13.1	13.8	14.9	15.0	---	14.2	15.0	14.8	
---	211.1	211.4	211.4	---	214.4	213.5	214.0	---	35.0	28.3	28.5	33.2	32.1	32.3	---	34.3	32.9	32.5	
---	65.0	61.4	53.2	---	53.8	43.0	47.9	---	55.1	47.6	48.6	72.1	47.6	43.8	---	72.7	52.7	61.2	

<sup>2</sup> Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Article	Unit	Seattle, Wash.			Springfield, Ill.			Washington, D. C.				
		Oct. 15—		Sept. 15, 1926	Oct. 15, 1926	Oct. 15, 1925	Sept. 15, 1926	Oct. 15, 1926	Oct. 15—		Sept. 15, 1926	Oct. 15, 1926
		1913	1925						1913	1925		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	
Sirloin steak	Pound	24.3	32.8	33.5	33.2	33.8	35.9	36.4	27.4	46.4	46.7	47.2
Round steak	do	20.7	28.8	29.3	29.1	33.4	35.4	36.0	23.5	39.7	40.4	40.3
Rib roast	do	19.3	25.9	26.9	26.6	22.3	24.0	24.1	20.7	33.7	34.3	34.7
Chuck roast	do	16.0	17.9	19.1	19.5	19.7	21.4	21.3	17.3	24.3	25.1	25.2
Plate beef	do	13.0	13.9	14.8	15.0	13.1	14.1	14.0	12.7	13.5	13.8	13.8
Pork chops	do	24.3	40.3	42.5	42.6	35.2	40.0	40.5	23.5	43.9	47.5	45.7
Bacon, sliced	do	32.5	57.3	62.0	61.7	48.1	60.7	49.8	27.1	51.4	53.1	51.6
Ham, sliced	do	30.0	58.8	65.0	64.7	53.3	58.9	58.8	30.0	59.6	62.1	61.6
Lamb, leg of	do	17.7	35.1	36.5	36.5	36.4	39.5	39.0	19.1	40.2	41.2	40.1
Pork chops	do	24.3	33.2	33.7	33.8	33.3	36.7	34.9	22.5	39.2	40.9	40.4
Salmon, canned, red	do	35.4	37.7	36.6	36.1	41.0	39.0			36.2	38.0	35.6
Milk, fresh	Quart	9.7	13.0	13.0	10.3	12.5	12.5	12.5	9.0	15.0	14.0	15.0
Milk, evaporated	15-16 oz. can		10.8	10.6	10.7	11.9	11.6	11.7		12.0	12.0	12.0
Butter	Pound	40.0	60.7	53.0	53.2	53.8	51.3	53.3	40.3	62.0	64.3	57.8
Oleomargarine (all butter substitutes)	do		30.6	30.8	31.0	32.5	30.6	30.7		30.9	31.5	31.5
Cheese	do	22.7	36.3	34.6	34.9	36.4	35.3	36.3	23.5	39.0	38.8	38.8
Lard	do	17.1	24.8	24.3	24.0	24.2	21.9	21.9	15.1	23.8	21.7	21.2
Vegetable lard substitute	do		28.6	28.4	28.2	28.3	28.0	28.0		25.2	25.9	25.8
Eggs, strictly fresh	Dozen	50.0	61.5	49.5	59.1	60.8	41.4	47.5	36.9	63.8	55.6	62.8
Eggs, storage	do		47.2		46.7	42.5		45.8		46.5		48.5
Bread	Pound	5.2	10.0	9.8	9.8	10.3	10.1	10.1	5.7	8.0	8.8	8.8
Flour	do	2.9	5.0	4.9	5.0	6.1	6.0	5.9	3.8	6.3	6.5	6.4
Corn meal	do	3.3	5.5	4.9	4.9	5.3	4.9	4.9	2.7	5.4	5.2	5.1
Rolled oats	do		9.0	8.9	9.0	10.2	10.0	10.3		9.4	9.2	9.2
Corn flakes	8-oz. pkg		11.8	11.8	11.5	11.8	11.6	11.5		10.7	10.8	10.8
Wheat cereal	28-oz. pkg		26.0	27.6	27.8	27.1	26.9	26.7		24.6	24.8	24.8
Macaroni	Pound		18.4	18.2	18.2	20.4	19.0	20.0		23.6	23.8	23.8
Rice	do	7.7	12.9	12.9	12.5	11.0	11.5	11.2	9.4	11.6	12.8	12.8
Beans, navy	do		11.3	10.2	10.0	9.1	8.9	8.8		9.2	8.2	8.3
Potatoes	do	1.4	2.9	2.6	2.6	3.6	4.0	3.9	2.0	3.9	4.3	4.2
Onions	do		4.4	3.9	3.6	5.2	5.3	4.5		6.5	6.0	5.8
Cabbage	do		3.1	4.1	3.8	3.8	4.1	3.7		4.8	4.8	4.6
Beans, baked	No. 2 can		14.2	12.9	12.3	11.7	10.9	10.6		10.6	10.6	10.5
Corn, canned	do		19.6	18.6	18.6	18.0	15.1	15.2		16.8	15.4	15.5
Peas, canned	do		20.5	19.7	20.3	17.9	16.9	16.9		17.8	16.5	16.5
Tomatoes, canned	do		18.6	17.9	17.6	15.0	13.8	13.8		11.7	10.2	11.6
Sugar, granulated	Pound	6.4	7.0	7.0	7.1	7.4	7.6	7.8	5.1	6.6	6.7	6.8
Tea	do	50.0	80.0	79.0	81.0	77.0	81.1	82.5	57.5	87.7	90.6	88.7
Coffee	do	28.0	51.4	52.1	52.8	53.3	52.7	53.4	28.8	48.5	48.6	48.9
Prunes	do		14.9	15.8	15.0	16.8	17.3	17.0		18.4	17.8	18.1
Raisins	do		13.4	14.8	14.9	14.7	16.0	15.9		14.1	15.0	15.0
Bananas	Dozen		12.7 <sup>2</sup>	13.6 <sup>2</sup>	13.5 <sup>2</sup>	10.1 <sup>2</sup>	10.0 <sup>2</sup>	10.5		34.7	34.7	35.3
Oranges	do		62.9	48.0	51.3	60.2	51.0	57.2		71.8	57.4	63.9

<sup>1</sup> No. 2½ can.<sup>2</sup> Per pound.

## Comparison of Retail Food Costs in 51 Cities

TABLE 6 shows for 39 cities the percentage of increase or decrease in the retail cost of food<sup>3</sup> in October, 1926, compared with the average cost in the year 1913, in October, 1925, and in September, 1926. For 12 other cities comparisons are given for the one-year and the one-month periods. These cities have been scheduled by the bureau at different dates since 1913. The percentage changes are

<sup>3</sup> For list of articles see note 6, p. 188.

based on actual retail prices secured each month from retail dealers and on the average family consumption of these articles in each city.<sup>4</sup>

TABLE 3.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN OCTOBER, 1926, COMPARED WITH THE COST IN SEPTEMBER, 1925, OCTOBER, 1925, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES

City	Percent- age increase October, 1926, compared with 1913	Percent- age decrease October, 1926, compared with October, 1925	Percent- age increase October, 1926, compared with September, 1926	City	Percent- age increase October, 1926, compared with 1913	Percent- age decrease October, 1926, compared with October, 1925	Percent- age increase October, 1926, compared with September, 1926
Atlanta	65.8	<sup>1</sup> 1.9	0.7	Minneapolis	55.8	1.6	0.0
Baltimore	67.3	0.1	0.9	Mobile		<sup>2</sup> 2.3	1.5
Birmingham	66.9	0.3	0.5	Newark	54.1	1.0	2.6
Boston	60.8	3.6	0.9	New Haven	61.0	0.8	2.1
Bridgeport		0.6	1.3	New Orleans	57.2	0.3	1.3
Buffalo	64.4	1.9	1.2	New York	64.0	1.3	2.3
Butte		0.3	0.8	Norfolk		<sup>1</sup> 2.1	1.3
Charleston, S. C.	62.0	0.2	0.2	Omaha	58.0	0.3	1.3
Chicago	71.6	<sup>1</sup> 1.3	2.1	Peoria		<sup>1</sup> 0.1	1.3
Cincinnati	63.8	<sup>1</sup> 3.0	0.7	Philadelphia	64.3	0.0	1.5
Cleveland	62.5	<sup>1</sup> 2.0	1.1	Pittsburgh	62.1	<sup>1</sup> 0.1	1.0
Columbus		<sup>1</sup> 0.4	0.3	Portland, Me.		1.5	0.9
Dallas	55.7	1.5	0.2	Portland, Oreg.	41.6	2.8	1.1
Denver	44.3	1.4	2.6	Providence	61.7	1.9	1.0
Detroit	67.2	0.0	0.3	Richmond	70.3	0.5	1.5
Fall River	56.8	2.2	1.5	Rochester		1.4	0.0
Houston		1.8	1.6	St. Louis	63.6	0.3	1.0
Indianapolis	56.1	<sup>1</sup> 1.2	<sup>2</sup> 0.3	St. Paul		0.5	0.1
Jacksonville	63.2	<sup>1</sup> 2.1	0.7	Salt Lake City	37.2	3.4	1.5
Kansas City	57.1	0.3	0.5	San Francisco	55.6	3.5	1.5
Little Rock	51.9	0.5	0.6	Savannah		0.4	<sup>2</sup> 0.4
Los Angeles	48.4	4.2	1.3	Scranton	63.4	1.0	1.1
Louisville	56.7	1.0	0.8	Seattle	45.9	4.6	<sup>2</sup> 0.7
Manchester	57.1	0.5	1.5	Springfield, Ill.		<sup>1</sup> 0.3	1.0
Memphis	50.9	1.0	0.4	Washington, D. C.	71.1	<sup>1</sup> 0.9	1.6
Milwaukee	63.1	<sup>1</sup> 3.4	1.7				

<sup>1</sup> Increase.

<sup>2</sup> Decrease.

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of October 99 per cent of all the firms supplying retail prices in the 51 cities sent in a report promptly. The following-named 41 cities had a perfect record; that is, every merchant who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Atlanta, Baltimore, Bridgeport, Buffalo, Butte, Charleston, Chicago, Cincinnati, Cleveland, Columbus, Dallas, Denver, Detroit, Fall River, Houston, Indianapolis, Jacksonville, Kansas City, Little Rock, Louisville, Memphis, Milwaukee, Minneapolis, Mobile, Newark, New Haven, New Orleans, Norfolk, Omaha, Philadelphia, Pittsburgh, Portland, Me., Providence, Richmond, Rochester, St. Paul, San Francisco, Savannah, Scranton, Springfield, Ill., and Washington, D. C.

<sup>4</sup> The consumption figures used from January, 1913, to December, 1920, for each article in each city were given in the November, 1918, issue, pp. 94 and 95. The consumption figures which have been used for each month beginning with January, 1921, were given in the March, 1921, issue, p. 26.

The following summary shows the promptness with which the merchants responded in October, 1926.

RETAIL PRICE REPORTS RECEIVED DURING OCTOBER, 1926

Item	United States	Geographical division				
		North Atlantic	South Atlantic	North Central	South Central	Western
Percentage of reports received.....	99	99	100	99.5	99	97
Number of cities in each section from which every report was received.....	41	11	8	12	7	3

### Retail Prices of Coal in the United States <sup>a</sup>

THE following table shows the average retail prices of coal on January 15 and July 15, 1913, October 15, 1925, and September 15 and October 15, 1926, for the United States and for each of the cities from which retail food prices have been obtained. The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, OCTOBER 15, 1925, AND SEPTEMBER 15 AND OCTOBER 15, 1926

City, and kind of coal	1913		1925	1926	
	Jan. 15	July 15	Oct. 15	Sept. 15	Oct. 15
<b>United States:</b>					
Pennsylvania anthracite—					
Stove.....	\$7.99	\$7.46	\$15.87	\$15.55	\$15.56
Chestnut.....	8.15	7.65	15.72	15.30	15.31
Bituminous.....	5.48	5.39	8.24	9.25	9.59
<b>Atlanta, Ga.:</b>					
Bituminous.....	5.88	4.83	7.45	8.15	8.15
<b>Baltimore, Md.:</b>					
Pennsylvania anthracite—					
Stove.....	1 7.70	1 7.24	1 16.21	1 16.00	1 16.08
Chestnut.....	1 7.93	1 7.49	1 15.71	1 15.50	1 15.58
Bituminous.....			7.65	7.58	7.63
<b>Birmingham, Ala.:</b>					
Bituminous.....	4.22	4.01	7.34	7.53	7.63
<b>Boston, Mass.:</b>					
Pennsylvania anthracite—					
Stove.....	8.25	7.50	16.25	16.25	16.40
Chestnut.....	8.25	7.75	16.00	16.00	16.15
<b>Bridgeport, Conn.:</b>					
Pennsylvania anthracite—					
Stove.....			16.00	15.00	15.00
Chestnut.....			16.00	15.00	15.00

<sup>1</sup> Per ton of 2,240 pounds.

<sup>a</sup> Prices of coal were formerly secured semiannually and published in the March and September issues. Since June, 1920, these prices have been secured and published monthly.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, OCTOBER 15, 1925, AND SEPTEMBER 15 AND OCTOBER 15, 1926—Continued

City, and kind of coal	1913		1925	1926	
	Jan. 15	July 15	Oct. 15	Sept. 15	Oct. 15
Buffalo, N. Y.:					
Pennsylvania anthracite—					
Stove.....	\$6.75	\$6.54	\$13.88	\$13.75	\$13.75
Chestnut.....	6.99	6.80	13.54	13.39	13.39
Butte, Mont.:					
Bituminous.....			11.05	10.95	11.03
Charleston, S. C.:					
Bituminous.....	<sup>1</sup> 6.75	<sup>1</sup> 6.75	11.00	11.00	11.00
Chicago, Ill.:					
Pennsylvania anthracite—					
Stove.....	8.00	7.80	17.19	16.90	16.91
Chestnut.....	8.25	8.05	17.19	16.65	16.72
Bituminous.....	4.97	4.65	8.99	8.91	9.06
Cincinnati, Ohio:					
Bituminous.....	3.50	3.38	7.00	7.50	8.50
Cleveland, Ohio:					
Pennsylvania anthracite—					
Stove.....	7.50	7.25	15.43	15.35	15.45
Chestnut.....	7.75	7.50	15.39	14.95	15.05
Bituminous.....	4.14	4.14	9.42	9.19	9.99
Columbus, Ohio:					
Bituminous.....			6.95	7.36	7.82
Dallas, Tex.:					
Arkansas anthracite—					
Egg.....			16.25	15.50	15.67
Bituminous.....	8.25	7.21	13.22	13.33	13.33
Denver, Colo.:					
Colorado anthracite—					
Furnace, 1 and 2 mixed.....	8.88	9.00	16.00	16.00	16.00
Stove, 3 and 5 mixed.....	8.50	8.50	16.25	16.50	16.50
Bituminous.....	5.25	4.88	10.18	10.73	10.79
Detroit, Mich.:					
Pennsylvania anthracite—					
Stove.....	8.00	7.45	16.42	16.00	16.00
Chestnut.....	8.25	7.65	16.26	15.50	15.50
Bituminous.....	5.20	5.20	9.86	9.90	10.39
Fall River, Mass.:					
Pennsylvania anthracite—					
Stove.....	8.25	7.43	16.21	16.75	16.75
Chestnut.....	8.25	7.61	16.13	16.25	16.25
Houston, Tex.:					
Bituminous.....			11.67	11.50	11.50
Indianapolis, Ind.:					
Bituminous.....	3.81	3.70	7.27	7.18	7.65
Jacksonville, Fla.:					
Bituminous.....	7.50	7.00	14.00	14.00	14.00
Kansas City, Mo.:					
Arkansas anthracite—					
Furnace.....			14.30	14.10	14.50
Stove No. 4.....			15.50	15.50	15.67
Bituminous.....	4.39	3.94	7.79	7.75	7.82
Little Rock, Ark.:					
Arkansas anthracite—					
Egg.....			14.00	14.00	14.00
Bituminous.....	6.00	5.33	10.77	10.35	10.46
Los Angeles, Calif.:					
Bituminous.....	13.52	12.50	15.75	15.63	15.69
Louisville, Ky.:					
Bituminous.....	4.20	4.00	6.68	6.63	7.33
Manchester, N. H.:					
Pennsylvania anthracite—					
Stove.....	10.00	8.50	17.50	17.50	17.50
Chestnut.....	10.00	8.50	17.00	17.50	17.50
Memphis, Tenn.:					
Bituminous.....	<sup>2</sup> 4.34	<sup>2</sup> 4.22	7.34	7.25	7.26
Milwaukee, Wis.:					
Pennsylvania anthracite—					
Stove.....	8.00	7.85	16.80	16.80	16.80
Chestnut.....	8.25	8.10	16.65	16.65	16.65
Bituminous.....	6.25	5.71	10.13	9.75	10.36
Minneapolis, Minn.:					
Pennsylvania anthracite—					
Stove.....	9.25	9.05	18.10	18.10	18.10
Chestnut.....	9.50	9.30	17.95	17.95	17.95
Bituminous.....	5.89	5.79	11.28	11.09	11.34

<sup>1</sup> Per ton of 2,240 pounds.

<sup>2</sup> Per 10-barrel lot (1,800 pounds).

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, OCTOBER 15, 1925, AND SEPTEMBER 15 AND OCTOBER 15, 1926—Continued

City, and kind of coal	1913		1925	1926	
	Jan. 15	July 15	Oct. 15	Sept. 15	Oct. 15
Mobile, Ala.:					
Bituminous.....			\$9.73	\$9.64	\$9.69
Newark, N. J.:					
Pennsylvania anthracite—					
Stove.....	\$6.50	\$6.25	14.00	14.00	14.00
Chestnut.....	6.75	6.50	13.55	13.50	13.50
New Haven Conn.:					
Pennsylvania anthracite—					
Stove.....	7.50	6.25	15.80	15.35	15.35
Chestnut.....	7.50	6.25	15.80	15.35	15.35
New Orleans, La.:					
Bituminous.....	<sup>2</sup> 6.06	<sup>2</sup> 6.06	10.11	9.32	10.29
New York, N. Y.:					
Pennsylvania anthracite—					
Stove.....	7.07	6.66	17.04	14.75	14.75
Chestnut.....	7.14	6.80	17.04	14.54	14.50
Norfolk, Va.:					
Pennsylvania anthracite—					
Stove.....			16.00	16.00	16.00
Chestnut.....			16.00	16.00	16.00
Bituminous.....			9.05	9.09	9.66
Omaha, Nebr.:					
Bituminous.....	6.63	6.13	10.02	10.02	10.02
Peoria, Ill.:					
Bituminous.....			6.76	6.81	6.94
Philadelphia, Pa.:					
Pennsylvania anthracite—					
Stove.....	<sup>1</sup> 7.16	<sup>1</sup> 6.89	<sup>1</sup> 16.14	<sup>1</sup> 15.79	<sup>1</sup> 15.79
Chestnut.....	<sup>1</sup> 7.38	<sup>1</sup> 7.14	<sup>1</sup> 16.07	<sup>1</sup> 15.54	<sup>1</sup> 15.54
Pittsburgh, Pa.:					
Pennsylvania anthracite—					
Chestnut.....	<sup>1</sup> 8.00	<sup>1</sup> 7.44	15.50	15.13	15.13
Bituminous.....	<sup>3</sup> 3.16	<sup>3</sup> 3.18	6.22	5.55	5.74
Portland, Me.:					
Pennsylvania anthracite—					
Stove.....			16.56	16.80	16.80
Chestnut.....			16.56	16.80	16.80
Portland, Oreg.:					
Bituminous.....	9.79	9.66	13.20	13.37	13.52
Providence, R. I.:					
Pennsylvania anthracite—					
Stove.....	<sup>4</sup> 8.25	<sup>4</sup> 7.50	<sup>4</sup> 16.25	<sup>4</sup> 16.25	<sup>4</sup> 16.25
Chestnut.....	<sup>4</sup> 8.25	<sup>4</sup> 7.75	<sup>4</sup> 16.00	<sup>4</sup> 16.00	<sup>4</sup> 16.00
Richmond, Va.:					
Pennsylvania anthracite—					
Stove.....	8.00	7.25	16.00	15.92	16.17
Chestnut.....	8.00	7.25	16.00	15.92	16.17
Bituminous.....	5.50	4.94	10.04	9.67	10.96
Rochester, N. Y.:					
Pennsylvania anthracite—					
Stove.....			14.50	14.60	14.60
Chestnut.....			14.15	14.15	14.15
St. Louis, Mo.:					
Pennsylvania anthracite—					
Stove.....	8.44	7.74	16.90	16.93	16.95
Chestnut.....	8.68	7.99	16.65	16.68	16.70
Bituminous.....	3.36	3.04	6.30	6.35	6.42
St. Paul, Minn.:					
Pennsylvania anthracite—					
Stove.....	9.20	9.05	18.10	18.10	18.10
Chestnut.....	9.45	9.30	17.95	17.95	17.95
Bituminous.....	6.07	6.04	11.72	11.30	11.63
Salt Lake City, Utah:					
Colorado anthracite—					
Furnace, 1 and 2 mixed.....	11.00	11.50	18.25	18.00	18.00
Stove, 3 and 5 mixed.....	11.00	11.50	18.25	18.00	18.00
Bituminous.....	5.64	5.46	8.41	8.04	8.47
San Francisco, Calif.:					
New Mexico anthracite—					
Cerillos egg.....	17.00	17.00	25.50	25.50	25.50
Colorado anthracite—					
Egg.....	17.00	17.00	25.00	25.00	25.00
Bituminous.....	12.00	12.00	16.67	16.67	16.61

<sup>1</sup> Per ton of 2,240 pounds.

<sup>2</sup> Per 10-barrel lot (1,800 pounds).

<sup>3</sup> Per 25-bushel lot (1,900 pounds).

<sup>4</sup> 50 cents per ton additional is charged for "binning." Most customers require binning or basketing the coal into the cellar.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, OCTOBER 15, 1925, AND SEPTEMBER 15 AND OCTOBER 15, 1926—Continued

City, and kind of coal	1913		1925	1926	
	Jan. 15	July 15	Oct. 15	Sept. 15	Oct. 15
Savannah, Ga.: Bituminous			<sup>5</sup> \$11.00	<sup>5</sup> \$11.25	<sup>5</sup> \$12.00
Scranton, Pa.: Pennsylvania anthracite—					
Stove	\$4.25	\$4.31	11.22	11.00	11.00
Chestnut	4.50	4.56	11.13	10.67	10.67
Seattle, Wash.: Bituminous	7.63	7.70	9.83	10.20	10.35
Springfield, Ill.: Bituminous			4.38	4.38	4.38
Washington, D. C.: Pennsylvania anthracite—					
Stove	<sup>1</sup> 7.50	17.38	<sup>1</sup> 15.85	<sup>1</sup> 15.80	<sup>1</sup> 15.88
Chestnut	17.65	17.53	<sup>1</sup> 15.54	<sup>1</sup> 15.51	<sup>1</sup> 15.53
Bituminous—					
Prepared sizes, low volatile			<sup>1</sup> 12.04	<sup>1</sup> 11.04	<sup>1</sup> 11.92
Prepared sizes, high volatile			<sup>1</sup> 9.00	<sup>1</sup> 8.75	<sup>1</sup> 8.75
Run of mine, mixed			<sup>1</sup> 7.69	<sup>1</sup> 7.75	<sup>1</sup> 8.00

<sup>1</sup> Per ton of 2,240 pounds.

<sup>5</sup> All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above prices.

### Index Numbers of Wholesale Prices in October, 1926

A SLIGHT decline in the general level of wholesale prices from September to October is shown by information collected in representative markets by the Bureau of Labor Statistics of the United States Department of Labor. The bureau's weighted index number, which includes 404 commodities or price series, registered 149.7 for October compared with 150.5 for the month before, a decline of one-half of 1 per cent. Compared with October, 1925, with an index number of 157.6, there was a decrease of 5 per cent.

Farm products in general were 1 per cent lower than in September, due mainly to declines in prices of cotton and cottonseed, onions, and potatoes. Corn prices also averaged lower than in the month before, while other grains, hogs, eggs, hides, tobacco, and wool were higher. Clothing materials, owing to the drop in cotton goods and raw silk, were 2 per cent cheaper than in September. In all other groups also except foods and fuels prices were slightly below those of the preceding month. Foods showed no change in the general price level, while fuels were 1 1/3 per cent higher.

Of the 404 commodities or price series for which comparable information for September and October was collected, increases were shown in 107 instances and decreases in 114 instances. In 183 instances no change in price was reported.

## INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES

[1913=100.0]

Group	October, 1925	1926	
		Septem- ber	Octo- ber
Farm products.....	155.3	141.1	139.4
Foods.....	157.6	152.0	152.0
Clothing materials.....	189.5	175.2	171.5
Fuels.....	171.7	182.0	184.4
Metals and metal products.....	127.9	127.0	128.7
Building materials.....	173.9	172.4	172.1
Chemicals and drugs.....	134.9	130.8	129.3
House-furnishing goods.....	167.9	160.4	160.3
Miscellaneous.....	138.0	120.4	118.6
All commodities.....	157.6	150.5	149.7
Raw materials <sup>1</sup> .....	162.4	152.7	152.4
Producers' goods <sup>1</sup> .....	132.7	128.8	127.1
Consumers' goods <sup>1</sup> .....	166.4	160.6	159.8

<sup>1</sup> Federal Reserve Board grouping.

Comparing prices in October with those of a year ago, as measured by changes in the index numbers, it is seen that large decreases took place in farm products, clothing materials, and miscellaneous commodities, with smaller decreases in foods, house-furnishing goods, metals, building materials, and chemicals and drugs. Fuels, on the contrary, averaged about 7½ per cent higher than in the corresponding month of last year.

### Wholesale Prices in the United States and in Foreign Countries, 1913 to September, 1926

IN THE following table the more important index numbers of wholesale prices in foreign countries and those of the United States Bureau of Labor Statistics have been brought together in order that the trend of prices in the several countries may be directly compared. In some instances the results here shown have been obtained by merely shifting the base to the year 1913—i. e., by dividing the index number for each year or month on the original base by the index number for 1913 on that base as published. In such cases, therefore, these results are to be regarded only as approximations of the correct index numbers. It should be understood, also, that the validity of the comparisons here made is affected by the wide difference in the number of commodities included in the different series of index numbers. For the United States and several other countries the index numbers are published to the fourth significant figure in order to show minor price variations.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES

[Index numbers expressed as percentages of the index number for 1913. See text explanation]

Country	United States	Canada	Belgium	Bulgaria	Czecho-slovakia	Denmark	Finland	France	Germany	Italy
Computing agency	Bureau of Labor Statistics	Dominion Bureau of Statistics	Ministry of Industry and Labor	Director General of Statistics	Central Bureau of Statistics (revised index)	Finans-tidende	Central Bureau of Statistics	General Statistical Bureau	Federal Statistical Bureau	Ricardo Bachi
Commodities	404	1 238	128	38	135	33	135	45	38	2 107
Year and month										
1913	100.0	100.0		100			100	100	100.0	100
1914	98.1	102.3		121				102		95
1915	100.8	109.9		185				140		133
1916	126.8	131.6		268				188		202
1917	177.2	178.5		667				262		299
1918	194.3	199.0		831				339		409
1919	206.4	209.2		1166				356		364
1920	226.2	243.5		2392			1183	509		631
1921	146.9	171.8		2006			250	345		577
1922	148.8	152.0	367	2472	1334	179	1219	327		562
1923	153.7	153.0	497	2525	977	201	1095	419	95.1	575
1924	149.7	155.2	573	2823	997	226	1100	489	122.5	585
1925	158.7	160.3	558		1001	200	1129	551	130.4	690
1923										
January	155.8	151.4	434	2657	991	181	1134	387	65.0	575
April	158.7	156.9	480	2757	1012	200	1096	415	89.5	588
July	150.6	153.5	504	2408	949	207	1080	407	88.8	566
October	153.1	153.1	515	2263	960	205	1077	421	117.9	563
1924										
January	151.2	156.9	580	2711	974	210	1071	494	117.3	571
February	151.7	156.8	642	2658	990	223	1078	544	116.2	573
March	149.9	154.4	625	2612	1021	227	1094	499	120.7	579
April	148.4	151.1	555	2798	1008	228	1095	450	124.1	579
May	146.9	150.6	557	2551	1001	225	1090	458	122.5	571
June	144.6	152.3	565	2811	968	219	1088	465	115.9	566
July	147.0	153.9	566	2737	953	220	1085	481	115.0	567
August	149.7	156.8	547	2853	986	233	1111	477	120.4	572
September	148.8	153.9	550	2848	982	231	1117	486	126.9	580
October	151.9	157.0	555	2988	999	234	1114	497	131.2	602
November	152.7	157.7	569	3132	1013	231	1120	504	128.5	621
December	157.0	160.9	566	3181	1024	232	1139	507	131.3	640
1925										
January	160.0	165.5	559	3275	1045	234	1137	514	138.2	658
February	160.6	164.7	551	3309	1048	234	1141	515	136.5	660
March	161.0	161.6	546	3272	1034	230	1131	514	134.4	659
April	156.2	156.5	538	3244	1020	220	1133	513	131.0	658
May	155.2	158.8	537	3177	1006	216	1122	520	131.9	660
June	157.4	158.6	552	3225	998	216	1129	543	133.8	683
July	159.9	158.1	559	3041	1009	206	1118	557	134.8	707
August	160.4	158.9	567	2870	993	189	1142	557	131.7	731
September	159.7	156.2	577	2834	996	168	1133	556	125.9	721
October	157.6	156.0	575	2823	989	163	1121	572	123.7	716
November	157.7	161.2	569	2822	977	158	1118	605	121.1	712
December	156.2	163.5	565	2913	977	160	1120	633	121.5	715
1926										
January	156.0	163.8	560	2901	966	157	1094	634	120.0	708
February	155.0	162.2	556	2899	950	151	1091	636	118.4	704
March	151.5	160.1	583	2844	938	145	1081	632	118.3	693
April	151.1	160.6	621	2774	923	141	1081	650	122.7	692
May	151.7	157.0	692	2938	928	141	1070	688	123.2	698
June	152.3	155.7	761	2842	926	140	1079	738	124.6	709
July	150.7	156.2	876	2838	948	141	1079	838	127.4	724
August	149.2	153.9	836	2759	963	143	1092	769	127.0	740
September	150.5	152.5	859	2723	973	141	1093	787	126.8	731

<sup>1</sup> 236 commodities since April, 1924.

<sup>2</sup> 36 commodities prior to 1920; 76 commodities in 1920 and 1921; 100 commodities in 1922.

<sup>3</sup> April.

<sup>4</sup> July.

<sup>5</sup> July 1, 1912-June 30, 1914.

## INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES—Continued

Country	Netherlands	Norway	Spain	Sweden	Switzerland	United Kingdom	Australia	New Zealand	South Africa	Japan	China	India
Computing agency	Central Bureau of Statistics	Central Bureau of Statistics	Institute of Geography and Statistics	Chamber of Commerce	Dr. J. Lorenz	Board of Trade	Bureau of Census and Statistics	Census and Statistics Office (revised)	Office of Census and Statistics	Bank of Japan, Tokyo	Bureau of Markets, Treasury Department, Shanghai	Labor Office, Bombay
Commodities	<sup>6</sup> 48	174	74	160	71	150	92	180	187	50	<sup>7</sup> 117	42
Year and month												
1913	100	100	100	100		100.0		100	100	100	100.0	
1914	109		101		<sup>4</sup> 100.0		<sup>4</sup> 100	104	97	95		<sup>4</sup> 100
1915	146		119				141	117	107	97		
1916	226		141				132	126	123	117		
1917	276		166				146	143	141	147		
1918	373		207				170	169	153	193		236
1919	304		204				180	176	165	236		222
1920	292		221	359		307.3	218	207	223	259	152.0	216
1921	182		190	222	196.5	197.2	167	192	161	200	150.2	199
1922	160		176	173	167.7	158.8	154	165	129	196	145.5	187
1923	151	232	172	163	179.9	159.1	170	158	127	199	156.4	181
1924	156	267	183	162	175.7	166.2	165	165	129	206	153.9	182
1925	155	253	188	161	162.9	159.7	162	161	128	202	159.4	163
1923												
January	157	223	170	163	174.7	157.0	163		131	184	152.7	181
April	156	229	174	168	185.9	162.0	167		126	196	157.7	180
July	145	231	170	162	179.8	156.5	180		124	192	155.4	178
October	148	235	171	161	181.1	158.1	171		125	212	156.1	181
1924												
January	156	251	178	161	183.2	165.4	174		131	211	155.8	188
February	158	261	180	162	183.4	167.0	170			208	159.5	188
March	155	264	180	162	180.1	165.4	167			206	157.5	181
April	154	263	184	161	181.4	164.7	166		126	207	153.7	184
May	153	261	179	160	180.4	163.7	165			205	154.3	181
June	151	262	179	158	178.3	162.6	163			199	151.8	185
July	151	265	182	157	173.3	162.6	163		125	195	151.5	184
August	151	271	182	160	170.6	165.2	162			200	148.8	184
September	158	272	184	163	169.9	166.9	162			206	149.3	181
October	161	273	186	167	169.0	170.0	163		133	213	152.8	181
November	161	276	181	167	168.5	169.8	163			214	154.9	176
December	160	279	198	168	169.8	170.1	165			213	157.4	176
1925												
January	160	279	191	169	170.8	171.0	163	166	130	214	159.9	173
February	158	281	192	169	170.8	168.9	162	162		210	159.2	173
March	155	279	193	168	169.9	166.3	160	162		204	160.3	171
April	151	273	190	163	165.9	162.5	158	162	130	202	159.3	165
May	151	262	191	162	163.0	159.0	159	162		199	157.8	164
June	153	260	187	161	161.9	157.6	162	162		200	157.3	160
July	155	254	188	161	160.6	157.5	162	161	127	198	162.8	158
August	155	249	184	159	159.6	157.0	162	161		200	160.3	160
September	155	237	185	157	159.4	156.0	162	160		201	160.2	157
October	154	223	187	154	159.2	154.8	163	162	124	200	159.0	158
November	154	220	186	155	157.0	153.7	165	161		198	158.4	160
December	155	220	187	156	156.7	153.2	160	160		194	158.1	154
1926												
January	153	214	186	153	155.5	151.3	161	159	124	192	164.0	154
February	149	211	183	152	154.5	148.8	160	159		188	163.0	151
March	145	205	183	149	150.8	144.4	163	157		184	164.4	150
April	143	199	179	150	148.4	143.6	168	156	120	181	162.8	151
May	143	197	179	151	146.6	144.9	167	156		177	159.7	151
June	144	194	177	150	145.1	146.4	163	155		177	155.8	150
July	141	192	178	148	145.0	148.7	162	156	122	179	156.9	149
August	139	193	180	147	145.5	149.1	162	154		177	160.5	148
September	139	193	178	146	146.0	150.9	158	153		176	164.2	

<sup>4</sup> July. <sup>6</sup> 52 commodities in 1920; 53 commodities from August, 1920, to December, 1921. <sup>7</sup> 147 items.

## Trend of Cotton Prices

ON NOVEMBER 3, 1926, the spot wholesale price of upland middling cotton, per pound, in New York was 12.8 cents. The average price of cotton for the full year 1913 was 12.8 cents, as shown in the wholesale price compilation that has been maintained by the Bureau of Labor Statistics for many years. Thus, with its many intervening fluctuations, the price of cotton has ended a cycle since 1913.

The production of cotton in the United States in 1913 was approximately 14,000,000 bales. In 1914 the production was 16,000,000 bales and the average wholesale price dropped to 12.1 cents. Everyone interested in cotton will remember the slump in price that came in the first year of the World War. Foreign commerce was almost at a standstill, and although the production in 1915 dropped to 11,000,000 bales, the average price for the year 1915 dropped to 10.2 cents. The annual production from 1916 to 1920 ran from 11,000,000 to 13,000,000 bales, but the demand for cotton brought the price up to 14.5 cents in 1916; 23.5 cents in 1917; 31.8 cents in 1918; 32.5 cents in 1919; and 33.9 cents in 1920.

Another price slump came in 1921. Production fell off to 8,000,000 bales, but the average wholesale price for the year was 15.1 cents, or considerably less than half the average price of 1920. The years 1922 and 1923 were years of good prices. There was a slight falling off in 1924, in 1925, and again in 1926. For the first six months of 1926 the average price was 19.5 cents. The severe break has occurred only recently. The January, 1926, price was 20.8 cents. This fell gradually to 18.7 cents in July and August, and, as stated above, on November 3, 1926, the price was down to 12.8 cents.

These prices are set forth in Table 1, and also, in a parallel column, index numbers based thereon, in which the price for 1913 is taken as 100. This table of index numbers shows that the average price for 1920 was nearly two and two-third times the 1913 price and also of the November 3, 1926, price.

Apparent discrepancies in the table of index numbers are accounted for by the fact that terminal decimals in the price have been dropped, but were used in the computation of the index number. Thus the index number is more nearly exact than the actual price stated.

The Department of Agriculture estimates the production of cotton for 1926 at 17,500,000 bales, in round numbers. This means a production more than double that of 1921 and more than 70 per cent higher than that of 1923. Each year from 1921 to 1926 there has been an increase in production, the figures for 1925 being 16,000,000 bales.

The Bureau of Labor Statistics makes compilations not only of wholesale prices of cotton, but of cotton goods as well. Consulting Table 1, it will be seen that while the index of the price of lint cotton (cotton in the bale) was 264.9 in 1920, the index for the price of cotton goods was 328.6. The index for the price of cotton goods remained higher than that for lint cotton during 1921 and 1922, then the price of cotton goods began to fall more than the price of lint cotton until the first half of 1926, when the index for the price of cotton goods

stood at 165.7, while the index for the price of lint cotton was 152.5. The figures for the months of 1926 show prices for cotton lower relatively than the price for cotton goods.

TABLE 1.—WHOLESALE PRICES OF COTTON, AND INDEX NUMBERS OF WHOLESALE PRICES OF COTTON AND OF COTTON GOODS, 1913 TO 1925, BY YEARS, AND JANUARY, 1925, TO NOVEMBER 3, 1926, BY MONTHS

Year and month	Average wholesale price of cotton: Upland middling, per pound, New York		Index number of wholesale price of cotton goods (1913=100)
	Actual	Index number (1913=100)	
1913	\$0. 128	100. 0	100. 0
1914	. 121	94. 6	94. 6
1915	. 102	79. 4	88. 9
1916	. 145	113. 1	121. 6
1917	. 235	183. 7	176. 2
1918	. 318	248. 5	264. 8
1919	. 325	253. 9	257. 0
1920	. 339	264. 9	328. 6
1921	. 151	118. 2	158. 5
1922	. 212	165. 9	171. 7
1923	. 293	228. 9	199. 1
1924	. 287	224. 6	194. 5
1925	. 235	183. 3	181. 1
1926 (average for first 6 months)	. 195	152. 5	165. 7
1925			
January	. 240	188. 0	185. 7
February	. 247	193. 0	184. 3
March	. 256	200. 2	185. 4
April	. 244	190. 9	183. 7
May	. 234	183. 3	180. 4
June	. 242	188. 9	178. 6
July	. 248	193. 5	179. 6
August	. 238	186. 3	181. 4
September	. 236	184. 3	182. 3
October	. 220	171. 7	182. 9
November	. 208	162. 2	178. 7
December	. 202	158. 2	175. 7
1926			
January	. 208	162. 3	172. 5
February	. 206	161. 4	170. 0
March	. 194	151. 6	167. 2
April	. 192	149. 7	164. 3
May	. 189	147. 6	161. 5
June	. 186	145. 1	158. 8
July	. 187	145. 8	157. 3
August	. 187	145. 4	160. 3
September	. 170	133. 2	161. 3
October	. 132	103. 0	-----
November 3	. 128	99. 7	-----

In connection with these price figures, the bureau has compiled production figures, consumption figures, and figures relating to spindles in place and spindles active. These in turn have all been brought into comparison with figures relating to population.

In 1913 the population of the United States in round numbers was 97,000,000 while in 1926 the population was 117,000,000. This means an increase of 21.4 per cent, as shown in Table 2. The production of cotton between 1913 and 1926 increased 23.3 per cent. It is interesting here to note, perhaps only as a coincidence, that when population and production reached corresponding levels in 1926, the price of cotton was back at the price of 1913. Table 2 contains the average monthly consumption of cotton in the United States.

By consumption is meant the delivery of cotton in the mill. Taking 1913 as 100, in 1917 consumption reached a point 22.1 per cent higher than in such base year. The lowest point was in 1921. Consulting the monthly figures for 1925 and 1926, it will be seen that in March, 1926, consumption was 36.4 per cent higher than in the base year, 1913.

Spindles in place in the mills available for use have increased in number about 20 per cent between 1913 and 1926. Spindles in place have thus not quite kept up with the increase in population.

Active spindles—that is, spindles at work as distinguished from spindles available for work—have not changed in like proportion. In 1923 active spindles were 13.5 per cent more in number than in 1913. The number dropped off until in 1926 only 6.9 per cent more spindles were active than in 1913, and in June, 1926, the number of active spindles was only 4 per cent above 1913.

TABLE 2.—PRODUCTION AND CONSUMPTION OF COTTON, SPINDLES IN PLACE AND ACTIVE, AND POPULATION, 1913 TO JUNE, 1926

Year or month	Production of cotton		Average monthly consumption of cotton		Spindles in place <sup>1</sup>		Active spindles		Population July 1, estimate	
	Bales	In-dex	Bales	In-dex	Number	In-dex	Number	In-dex	Popula-tion	In-dex
1913.....	14,156,486	100.0	465,289	100.0	<sup>2</sup> 31,546,000	100.0	30,559,000	100.0	96,512,407	100.0
1914.....	16,134,930	114.0	454,064	97.6	<sup>3</sup> 31,546,000	100.0	30,748,000	100.6	97,927,516	101.5
1915.....	11,191,820	79.1	500,749	107.6	-----	-----	31,136,000	101.9	99,342,625	102.9
1916.....	11,449,930	80.9	551,701	118.6	-----	-----	32,293,000	105.7	100,757,735	104.4
1917.....	11,302,375	79.8	567,984	122.1	-----	-----	33,400,000	109.3	102,172,845	105.9
1918.....	12,040,532	85.1	514,712	110.6	-----	-----	33,525,000	109.7	103,587,955	107.3
1919.....	11,420,763	80.7	493,293	106.0	<sup>3</sup> 34,342,000	108.9	33,878,000	110.9	105,003,065	108.8
1920.....	13,439,603	94.9	486,923	104.7	-----	-----	33,807,000	110.6	106,422,000	110.3
1921.....	7,953,641	56.2	450,565	96.8	36,563,000	115.9	33,052,000	108.2	108,445,000	112.4
1922.....	9,762,069	69.0	507,294	109.0	36,962,000	117.2	33,026,000	108.1	109,893,000	113.9
1923.....	10,139,671	71.6	543,444	116.8	37,351,000	118.4	34,681,000	113.5	111,693,000	115.7
1924.....	13,627,936	96.3	460,139	98.9	37,791,000	119.8	31,136,000	101.9	113,727,000	117.8
1925.....	16,103,679	113.8	535,699	115.1	37,913,000	120.2	32,634,000	106.8	115,378,000	119.5
1926.....	<sup>4</sup> 17,454,000	123.3	<sup>4</sup> 560,015	121.6	<sup>4</sup> 37,777,000	119.8	<sup>4</sup> 32,666,000	106.9	117,136,000	121.4
1925										
January.....	-----	-----	594,010	127.7	37,850,000	120.0	33,321,000	109.0	-----	-----
February.....	-----	-----	550,775	118.4	37,947,000	120.3	33,359,000	109.2	-----	-----
March.....	-----	-----	583,407	125.4	37,785,000	119.8	33,217,000	108.7	-----	-----
April.....	-----	-----	596,541	128.2	37,867,000	120.0	33,410,000	109.3	-----	-----
May.....	-----	-----	531,668	114.3	37,777,000	119.7	33,137,000	108.4	-----	-----
June.....	-----	-----	494,082	106.2	37,862,000	120.0	32,285,000	105.7	-----	-----
July.....	-----	-----	483,926	104.0	37,876,000	120.1	31,737,000	103.9	-----	-----
August.....	-----	-----	448,665	96.4	37,793,000	119.8	31,270,000	102.3	-----	-----
September.....	-----	-----	483,266	103.9	37,777,000	119.8	31,552,000	103.2	-----	-----
October.....	-----	-----	543,679	116.8	37,917,000	120.2	32,425,000	106.1	-----	-----
November.....	-----	-----	543,098	116.7	37,845,000	120.0	32,892,000	107.6	-----	-----
December.....	-----	-----	575,271	123.6	37,945,000	120.3	33,001,000	108.0	-----	-----
1926										
January.....	-----	-----	583,192	125.3	37,824,000	119.9	32,803,000	107.3	-----	-----
February.....	-----	-----	567,244	121.9	37,822,000	119.9	33,029,000	108.1	-----	-----
March.....	-----	-----	634,593	136.4	37,864,000	120.0	33,233,000	108.8	-----	-----
April.....	-----	-----	575,799	123.8	37,777,000	119.8	32,893,000	107.6	-----	-----
May.....	-----	-----	516,758	111.1	37,719,000	119.6	32,267,000	105.6	-----	-----
June.....	-----	-----	518,504	111.4	37,653,000	119.4	31,771,000	104.0	-----	-----

<sup>1</sup> As computed from aggregate and average spindle hours, except 1914 and 1919.

<sup>2</sup> No data; assumed the same as in 1914.

<sup>3</sup> Total of active and inactive spindles, 1920 Census, Vol. X, pp. 176-177.

<sup>4</sup> Average, January to June.

<sup>5</sup> Estimated by Crop Estimates Section of Bureau of Agricultural Economics, Oct. 25, 1926.

The relation of the several factors are brought out in graphic form in the accompanying chart, in which 1913 is taken as the point of origin for all lines indicating trend. The trends through the period—in price, production, and consumption of cotton, in spindles in place and active spindles, and in population—are brought into comparison. The chart shows the trend by years from 1913 to 1926 and by months from January, 1925, to June, 1926, except cotton prices, which are carried down to November, 1926. Therefore, except in the case of prices, the chart does not reflect the change down to November, 1926, as figures for all items are not available.

In studying the tables and chart it must be borne in mind that the figures are based on index numbers and that the numbers shown on the margin are not actual numbers of production, or prices, etc. Thus a drop for several years below the line 100 in production, while the index numbers for consumption run above 100, does not mean that production was less than consumption. Production was very much more than consumption in 1913 and in every other year, but as both are compared with 1913, production went down while consumption went up.

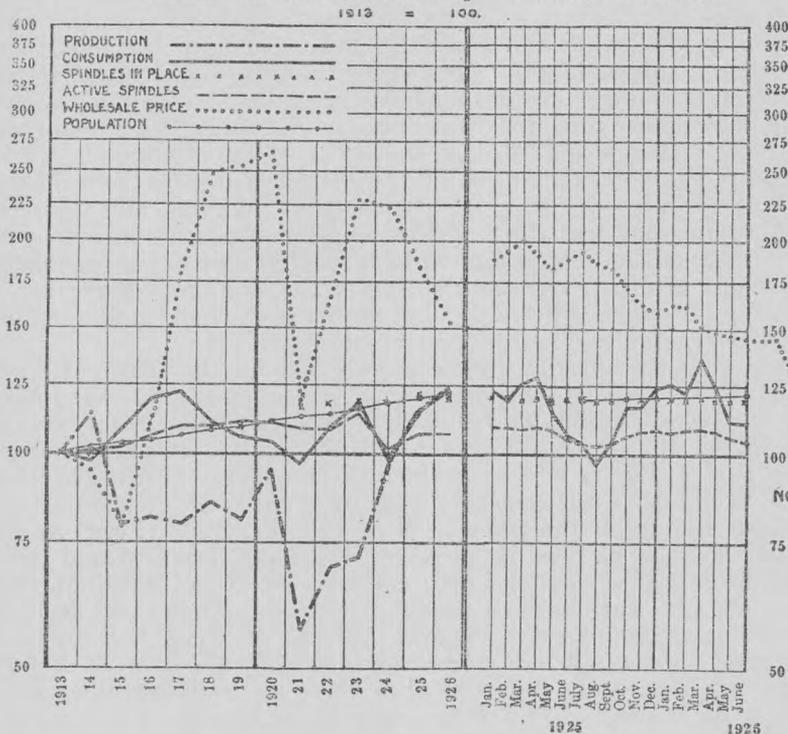
In considering amount of production and consumption of cotton the margin between the two figures is always of interest. Normally the United States exports a considerable part of its production and imports a little cotton. In 1913 the export was 8,609,588 bales and the import 209,960 bales, and in 1925 the export was 8,532,243 bales and imports 313,361 bales. No intervening year had so large an export. The number of bales exported and imported from 1913 to 1925 is given in Table 3. The exports and imports are given for eight months of 1926, but no estimate is ventured for the year.

TABLE 3.—EXPORTS AND IMPORTS OF COTTON 1913 TO 1925, BY YEARS, AND JANUARY, 1924, TO AUGUST, 1926, BY MONTHS

Year or month	Exports (bales)	Imports (bales)	Year or month	Exports (bales)	Imports (bales)
1913	8,609,588	209,960			
1914	6,320,485	317,388			
1915	8,358,992	405,570			
1916	7,029,721	384,773			
1917	4,818,843	277,231			
1918	4,112,349	225,368			
1919	6,557,187	350,717			
1920	6,159,152	599,939			
1921	6,474,105	277,897			
1922	6,113,813	372,362			
1923	5,279,165	374,731			
1924	6,794,921	321,237			
1925	8,532,243	313,361			
			1925		
			January	1,076,075	54,822
			February	811,838	59,902
			March	740,076	33,955
			April	472,555	22,409
			May	330,967	14,219
			June	217,786	19,957
			July	202,468	9,927
			August	315,825	9,266
			September	752,324	15,121
			October	1,421,482	12,402
			November	1,206,786	27,097
			December	984,061	34,374
			1926		
			January	749,967	62,061
			February	556,185	33,354
			March	519,732	45,726
			April	516,494	33,464
			May	419,459	13,626
			June	346,533	22,137
			July	366,722	12,090
			August	391,295	13,269
1924					
January	546,853	47,693			
February	482,146	48,602			
March	332,168	49,833			
April	320,774	40,436			
May	326,357	16,107			
June	230,979	13,641			
July	211,533	6,783			
August	277,647	4,136			
September	737,485	9,654			
October	946,506	18,140			
November	1,306,550	17,549			
December	1,075,923	48,663			

**COTTON & POPULATION INDEXES.**

BY YEARS FROM 1913 TO 1926 INCL. | BY MONTHS 1925 & 1926



**Food Habits of Farm and City Families**

**A** COMPARISON of the food consumption of families living on farms and of city workingmen's families, by Edith Hawley, in the Nation's Health (Chicago), October, 1926, is based on studies by the United States Bureau of Labor Statistics and the United States Department of Agriculture.

Interest in American food habits during the last 10 years has been keen upon the part of producers and distributors of food, who need this information in order to know how to produce and distribute food to the best advantage, on the part of statisticians who have to have consumption figures in calculating the food item in cost-of-living studies, and on the part of educators who need comprehensive studies of food consumption in directing the education of the consumer so that he may do his part in securing food production and distribution suited to his requirements.

The study of the Bureau of Labor Statistics gives average food consumption figures in 1918 for about 12,000 workingmen's families in 42 States, while the Department of Agriculture studies give such figures for nearly 2,300 farm families in 16 States, one study being made in 1912-1914 and the other in 1923.

Analysis of these figures shows that the food consumption of the average farm family was not only considerably larger than that of the average workingman's family but that it was very much more than was needed, while the worker's family consumed less food than is considered a safe margin. Expressing these figures in the terms of the nutrients, energy, protein, and the minerals, the food consumed by the farm family provided 30 per cent more energy and 50 per cent more protein than was needed, as well as an excess of minerals, while the food of the workingman's family furnished 17 per cent less energy than was needed, from 10 to 16 per cent less minerals, and the protein allowance just met the standard used for measuring adequacy.

Practically all foodstuffs figured in the differences in consumption, the amount of meat, eggs, and cheese in the average workingman's diet being 40 per cent below that in the farm diet, and milk, cream, fruit, and vegetables about 60 per cent below.

Comparing the distribution of energy among the different food groups, the total energy yielded by milk, cream, and sweets was much lower in the workingman's family and the proportion from cereals much higher than in the diet of the farm family. It might be expected that a diet in which so much of the energy is furnished by cereals would be less expensive, and after reducing the figures for the three studies to the price level of the year 1923 it was found that on the basis of rural retail prices which the farmer would have paid if he had purchased all his food the cost of the workingman's diet was 24 per cent less than the farmer's food. The energy yielded by the workingman's diet, however, was 37 per cent less, so that in terms of nutrients it was more expensive than the farmer's diet.

Although this study indicates that there are striking differences between the average farm diet and that of the average workingman, it is pointed out that inaccuracies in the estimates in consumption in both sets of figures, the fact that farmers store large quantities of food and it is impossible to measure accurately the waste that occurs in the stored foods, and the practice by many farmers of selling the best grade of produce and using the second grades, in which there is a larger amount of waste, all tend to an overstatement of consumption on the part of the farm housewife. Before a satisfactory comparison can be made, therefore, of the food habits of farm and city dwellers it would be necessary to correct such inaccuracies as these in the food-consumption figures.

# LABOR AGREEMENTS, AWARDS, AND DECISIONS

## Labor Agreements

### Cloth Hat and Cap Workers—New York City

**T**HE agreement between the Wholesale Hat and Cap Manufacturers' Association and the Joint Council of New York, comprising Locals 1, 2, 3, 17, 23, 30, and 40 of the United Cloth Hat and Cap Makers of North America, made July 19, 1922 (printed in the Labor Review September, 1922, pp. 135-138), and after revision extended for two years from June 30, 1924 (articles relative to wages and the unemployment fund printed in the Labor Review August, 1924, pp. 132-134), was after a strike lasting from July 6 to July 29, 1926, somewhat revised and extended to June 30, 1929.

The manufacturers' association had demanded the right to discharge 20 per cent of their employees each year, and the abolition of the unemployment insurance system and of pay for legal holidays. The new agreement retains all these provisions, though with changes.

The principal changes in the agreement are as follows:

I. B. One specified member or representative of the firm may be permitted to work only while the workers of the shop are working in the shop. An adequate and effective penalty shall be imposed by the board of adjustment for violation of this provision.

C. In the event that the union shall fail to supply such required help within two working days, the firm shall have the right to hire union members in the open market and the union will give to such hired worker a written permit to work for the firm thus hired.

F. The decision of the board [in cases of discharge] shall be rendered within two weeks from the date of the submission of the case. When the charge is assault or gross insult given upon the part of the worker, the chairman of the board of adjustment or, in his absence, the clerk of the union jointly with the clerk of the association may order a temporary suspension pending trial within 24 hours. The suspension shall not be construed as affecting the merits of the case.

To the section on unemployment fund was added the following:

VI. D. An advisory board consisting of the president and secretary of the association, the general secretary of the Cloth Hat, Cap, and Millinery Workers' International Union, the secretary of the Joint Council, and the chairman of the board of adjustment is hereby created. The advisory board shall cooperate with the union and perform functions in connection with the unemployment fund not in conflict with the foregoing provisions of this article. The chairman of the board of adjustment shall be afforded all facilities by the union to ascertain whether the letter and the spirit of such agreement is being carried out.

The following section was inserted in regard to jobbers:

VI. A. None of the merchandise manufactured by any member of the association shall be directly or indirectly manufactured for or sold to or for the account of any manufacturer or jobber of the greater metropolitan area of New York City who is not under contract with the union to observe and maintain union standards.

It is further agreed that whenever the Cloth Hat, Cap, and Millinery Workers' International Union will start a movement to unionize the jobbers in any market throughout the country the same provision shall apply with regard to the jobbers of that market.

B. The union shall supply the association with a full list of manufacturers and jobbers who are under contract with the union to observe and maintain union standards.

C. Every manufacturer shall on the first day of every month furnish the union, through the association, with a list of the names and addresses of manufacturers and jobbers of the greater metropolitan area of New York for whom he is working and to whom he is selling merchandise.

The following new article was added to the section in regard to hours:

III. A. Beginning with July 1, 1927, and thereafter during the life of this agreement, a week's work shall consist of 40 hours, distributed over the first five working days. No work shall be done on Saturday or Sunday under any circumstances.

The weekly wages for operators, cutters, and blockers were increased from \$40 to \$44, packers from \$35 to \$38, pressers from \$33 to \$36, lining makers and trimmers from \$27 to \$30.

The following provisions relate to the duration of the agreement:

XIII. A. This agreement shall go into effect upon ratification by the respective organizations, and shall terminate on June 30, 1929.

B. On or about January 1, 1926, a conference shall take place between accredited representatives of the association and the union to take up the question of renewal, revision, or modification of the agreement. The chairman of the board of adjustment shall preside at these conferences, but shall have no vote.

C. At the end of each year while this agreement is in force conferences may be held to consider trade and wage problems.

D. Each party to the agreement shall have the right to call upon the other side to designate a special committee to confer upon matters of mutual interest and concern.

### Dining-Car Cooks and Waiters—New York, New Haven & Hartford Railroad

AN AGREEMENT was made April 30, 1926, between the New York, New Haven & Hartford Railroad and the Brotherhood of Dining Car Employees, of which the more prominent provisions are the following:

Two hundred and forty hours of service in regular assignment shall constitute a basic month's work.

All the time in excess of 240 hours in any one month in regular assignment shall be counted as overtime and shall be paid for at the pro rata hourly rate.

Chefs:	Per month
First year.....	\$135
Second year.....	145
Third to fifth year.....	150
Sixth to tenth year.....	155
Eleventh to fifteenth year.....	160
After fifteen years.....	165
Second cooks:	
First year.....	105
Second year.....	110
Third year.....	120
Third cooks:	
First year.....	90
Second year.....	100

	Per month
Fourth cooks-----	\$32
Waiters-----	60
Pantrymen-----	62
	65

Cooks and waiters shall be considered on duty from the time required to report for duty until released from duty, except that time released for rest on trips at lay-over, turn-around, set-out, or terminal points shall be deducted where interval of release from duty exceeds one hour. Deduction for rest period not to exceed  $2\frac{1}{2}$  hours in any 1 day or trip. Deadhead hourage when authorized shall be considered as service hourage.

When called for work such as stocking or unstocking of cars or similar work on other than their own assignment will be paid 4 hours' pay for 4 hours' work or less; 8 hours' pay for over 4 hours and less than 8 hours' work, and on the actual basis thereafter at their respective hourly rate.

Two days off duty each calendar month will be allowed at designated home terminal, if month's schedule is completed. It is understood that when schedule permits employee to lay off at home terminal each full 24 hours of such period will apply as one day relief.

Promotion shall be based on ability, merit, and seniority; ability and merit being sufficient, seniority shall prevail. The management to be the judge.

The management agrees that there will be no discrimination against employees interested who serve on any committee of the brotherhood or committees representing the cooks and waiters, collectively or individually, and they will be granted leave of absence without pay while serving on such committees. Free transportation will be granted employees serving on committees for the adjustment of grievances in accordance with regulations issued by the company from time to time and in conformity with State and Federal laws.

Except as above mentioned for grievance committees, no leave of absence will be granted for a longer period than one month, subject to renewal. No leave of absence will be granted for the purpose of engaging in other than railroad positions for this company.

It is understood and agreed that any employee who considers himself unjustly treated or disciplined or who has any grievance under the existing agreement shall, upon request, be granted a hearing before the official designated to hold such hearing within 10 days from date of notice of such discipline.

If this decision is unsatisfactory, an appeal may be made to the superintendent of dining-car department, if done in writing within 10 days from date of such notice. At any and all hearings an employee may be represented by a duly accredited representative or committee. If it is found that he has been discharged or disciplined without cause he will be reinstated and reimbursed for his wage loss, if any.

### Fur Workers—Chicago

**T**HE Chicago Fur Workers' Union on August 14, 1926, made a somewhat lengthy agreement with the Chicago Fur Manufacturers' Association to be in force until June 30, 1929. The following sections are taken from the same:

(1) It is agreed that in the employment or discharge of workers there shall be no discrimination against union workers, nor against any union worker because of his peaceful and orderly conduct of union propaganda outside of working hours, nor against any employee because of his or her orderly insistence upon the strict observance of the terms of this agreement.

(2) It is further agreed that the workers employed in the various crafts shall be members in good standing in said union, and that no worker shall be engaged except upon presentation of a working card certifying his good standing in said union, may be employed for a period of two weeks' trial and the employer shall notify the union of such employment in writing.

<sup>1</sup> Merchants limited.

(4) It is understood and agreed that the firm has the right to employ any worker that it sees fit for a two weeks' trial, at the expiration of which time they shall join the union. However, it is agreed that no employee shall be discharged after two weeks' trial without good cause, and every unjustified discharge shall be subject to review by the board of arbitration in the event of application being made within 24 hours after such alleged unjustified discharge. In the event that the board of arbitration shall rule against the employer the worker shall be reinstated and shall be compensated for time lost.

(5) From January 1 to August 15 of each year the working week shall consist of a 40-hour week, divided into five days, except during the month of January, where any individual shop desiring to divide the 40 hours shall have the privilege to divide the 40 hours over the 5½ days. From August 15 to December 31 of each year the hours shall consist of 44-hour week.

(6) No overtime shall be permitted on Saturday and Sunday, except as provided in paragraph 11 of this agreement.

(7) The period in which overtime may be permitted shall be between the first Monday in September and the first Monday in February of the following year.

(9) Overtime shall not exceed more than three hours per day the first five working days of the week. On Saturday not more than four hours between the first week in September and the first week in December.

(10) No overtime shall be permitted between December and February if there are any workers out of work.

(11) Overtime worked between January and September shall be considered a violation of this agreement.

(12) No worker shall be permitted to work regular time in one place and overtime in another place.

(13) To comply with the State laws providing the hours of work for women, including overtime, shall not be more than 54 hours per week nor more than 10 hours a day.

(14) Overtime shall be paid at the rate of time and a half.

(15) No employee shall be permitted to work on any of the following legal holidays and shall be paid for same: Lincoln's Birthday, Washington's Birthday, Decoration Day, Independence Day, Labor Day, Thanksgiving Day, Christmas, and New Year. During the weeks in which the holidays occur 36 hours shall be deemed a regular working week, and any time put in excess of said 36 hours shall be deemed overtime.

(16) Employers shall have the right to arrange for an exchange of legal holidays for the nearest Jewish holidays, providing such changes are now in effect or are made prior to the signing of this agreement.

(17) During the week in which a holiday occurs employees working less than a full week shall be paid for the holiday pro rata for the hours worked. All wages shall be paid in cash on Monday of each week for the week preceding.

(18) The minimum scale of wages to be substituted for the old minimum scale shall be as follows and shall become effective August 16 1926:

Cutters: First group, \$50; second group, \$44.

Finishers: First group, \$35; second group, \$28.50.

Nailers: First group, \$37; second group, \$33.50.

Operators: First group, \$45; second group, \$35.

(19) The classification of any workman shall be determined by his skill, efficiency, and period of service in his branch of the trade, and the salary paid either heretofore or hereafter shall not determine such classification, except that any worker who during the season shall have received a wage equivalent to the scale provided for first group workers, plus 20 per cent, shall thereafter be deemed entitled to be classified as a first-class worker.

(20) The employment of six skilled artisans shall entitle the employer to one apprentice all year round.

(21) All apprentices shall be registered with the union, and after 30 days' employment shall apply to the union for a temporary union card.

(22) The term for apprenticeship shall be as follows:

Cutters, 18 months; operators and nailers, 12 months; finishers, 6 months.

After one has served his apprenticeship he shall be entitled to the minimum scale of wages. The minimum wage for all apprentices shall be \$15 per week.

(23) The wage of workers changing from one branch of the trade to the other shall be adjusted to the mutual satisfaction of the employer and employee.

(24) No piecework shall be permitted. No work shall be sublet or given out by contract other than lining and finishing, and all such subletting or contracting

must be with union shops who shall be registered with the conference committee. The firm further agrees that it will not do any work for any firm whose workers are on strike.

(32) The parties hereto agree that there shall be no strike or lockout during the continuance of this agreement for any reason whatsoever or because of any matter in controversy or dispute, but that all matters in controversy or dispute shall in the first instance be taken up with the member of the association involved in the dispute and a representative of the union.

(33) In the event that the member of the association and the representative of the union shall be unable to adjust the controversy or dispute the same shall be immediately referred to a board of arbitration, and said board shall meet and adjust the dispute within 48 hours, unless the time is extended by mutual consent.

(34) The parties to this agreement hereby establish a board of arbitration, consisting of 11 members, 5 to represent the association and 5 to represent the union, and an impartial chairman, mutually acceptable to both sides, who shall have the power to vote in case of a tie.

(35) The board of arbitration shall have the power to recommend the disciplining of the offending party for violating of the terms of this agreement after due trial and to enforce such recommendations.

(38) The decision of the board of arbitration shall be absolutely binding on both the association and the union.

### Mailers—New York City

**M**AILERS' UNION No. 6 has made an agreement with the Publishers' Association of New York City, effective August 23, 1926, to July 1, 1929, from which the following extracts are taken:

#### ARTICLE I

**SECTION 1. Jurisdiction.**—Mailers' Union No. 6 shall have jurisdiction over all work done appertaining to all mail, baggage, and express deliveries of newspapers, magazines, and periodicals, such as tagging, bagging, inserting, stamping, checking blotters with wrappers for baggage, mail, and express; dissecting, wrapping, tallying, bundling, manning delivery end of elevators and escalators leading out of the press room; preparing wrappers, stripping lists, routing of mails, counting and tying, delivery clerks tallying and passing publications to the city delivery; and no person shall be employed on the above work except members of Mailers' Union No. 6 and its apprentices. The above definition shall not be invoked by either party to change present work.

**SEC. 2. Superintendents and foremen of mailing and delivery departments** shall be members of Mailers' Union No. 6, and shall supervise and attend to all work as specified in preceding section.

**SEC. 3. Agreement to supply competent help.**—Mailers' Union No. 6, whenever called upon, shall supply the office with competent, experienced, and satisfactory men, and if the union should fail or neglect to supply such help in ample time to prevent delay on the issue of the paper, after such demand shall have been made upon it, it shall be proper for the office making such demand to secure such help from any other source possible and retain such help permanently in its employ, provided such help shall be eligible and shall immediately make application to become a member of Mailers' Union No. 6.

**SEC. 4. Members of Mailers' Union No. 6 employed in mailing publications other than those owned or published by the same office shall be entitled to an extra day's or night's pay.**

#### ARTICLE II

**SECTION 1. Wages for night work.**—Stampers and delivery clerks regularly employed at night work shall receive:

	Per week
From August 23, 1926, until August 22, 1927.....	\$49
From August 22, 1927, to August 20, 1928.....	50
From August 20, 1928, to end of contract.....	51

Mailers regularly employed at night work shall receive:	Per week
From August 23, 1926, until August 22, 1927.....	\$46
From August 22, 1927, to August 20, 1928.....	47
From August 20, 1928, to end of contract.....	48

Sec. 2. *Hours for night work.*—Forty-four hours shall constitute a week's work for all regular men.

Seven consecutive hours or any part thereof shall constitute a night's work, except on Friday and Saturday nights, when eight consecutive hours or any part thereof shall constitute a night's work. The hours for night work shall be between 9 p. m. and 8 a. m. on all nights except Friday and Saturday nights, when the starting time shall be between 5 p. m. and 12 midnight.

The foreman shall designate the nights off of all regular men.

Sec. 3. Overtime for night stampers and delivery clerks shall be at the following rates:

	Per hour
From August 23, 1926, until August 22, 1927.....	\$1. 67
From August 22, 1927, to August 20, 1928.....	1. 70
From August 20, 1928, to end of contract.....	1. 74

Overtime for night mailers shall be at the following rates:

From August 23, 1926, to August 22, 1927.....	\$1. 57
From August 22, 1927, to August 20, 1928.....	1. 60
From August 20, 1928, to end of contract.....	1. 63½

All overtime shall be computed in five-minute periods.

### ARTICLE III

SECTION 1. *Wages for day work.*—Stampers and delivery clerks, regularly employed at day work shall receive:

	Per week
From August 23, 1926, to August 22, 1927.....	\$47. 00
From August 22, 1927, to August 20, 1928.....	48. 00
From August 20, 1928, to end of contract.....	49. 00

Mailers regularly employed at day work shall receive:

From August 23, 1926, to August 22, 1927.....	\$44. 00
From August 22, 1927, to August 20, 1928.....	45. 00
From August 20, 1928, to end of contract.....	46. 00

Sec. 2. *Hours for day work.*—Forty-eight hours shall constitute a week's work for all regular men.

Eight consecutive hours or any part thereof shall constitute a day's work. The hours for day work shall be between 7 a. m. and 7.30 p. m.

Sec. 3. Overtime for stampers and delivery clerks employed at day work shall be at the following rates:

	Per hour
From August 23, 1926, to August 22, 1927.....	\$1. 47
From August 22, 1927, to August 20, 1928.....	1. 50
From August 20, 1928, to end of contract.....	1. 53

Overtime for mailers employed at day work shall be as follows:

From August 23, 1926, to August 22, 1927.....	\$1. 37½
From August 22, 1927, to August 20, 1928.....	1. 41
From August 20, 1928, to end of contract.....	1. 44

All overtime shall be computed in five-minute periods.

Sec. 4. Extra men shall receive 50 cents more than the scale per day for eight hours or any part thereof.

Sec. 5. Double time shall be paid for all Sunday work on daily evening papers.

### ARTICLE VI. CODE OR PROCEDURE AND JOINT STANDING COMMITTEE

SECTION 1. A joint standing committee shall be maintained to consist of two representatives of Publishers' Association of New York and two representatives of Mailers' Union No. 6, and in case of a vacancy, refusal, or failure of a representative to act another shall immediately be appointed in his place, to which committee shall be referred all questions which may arise as to the construction to be placed upon any of the clauses of the agreement or any alleged violation

thereof which can not be settled otherwise. The decisions of the committee shall be by majority vote of all its members and shall be of binding effect.

SEC. 2. If any controversy arises as to interpretation or enforcement of this agreement or the scales of prices attached thereto, the conditions prevailing prior to the dispute shall be maintained until the controversy has been disposed of as provided herein.

SEC. 3. When it becomes evident there is a disagreement as to the interpretation or enforcement of the terms of this agreement the aggrieved party shall address the other party in writing, clearly setting forth the matters in question. An issue is raised when notice is given in accordance with this section.

SEC. 6. The joint standing committee shall meet within seven days after a question or difference shall have been referred to it by the authorized representative of either party to the agreement. If within 10 days from the date of its first meeting the joint standing committee is unable to render a decision by majority vote, the members of such joint standing committee shall constitute themselves into a local arbitration board by adding a fifth member, who shall be chairman of the board.

SEC. 7. The decisions of the majority of this board of five shall be final and binding on both parties to the agreement.

### Street Railways—Connecticut

THE Connecticut Co., operating trolley cars in many of the towns and cities of Connecticut, made a new agreement with its employees, effective for one year from June 1, 1926, from which the following extracts are taken:

For two-man cars—

First three months, 55 cents per hour; next nine months, 58 cents per hour; thereafter, 62 cents per hour.

Seven cents per hour above employee's regular two-man car rate will be paid while operating one-man cars.

Ten cents per hour above employee's regular two-man car rate will be paid while operating buses.

1. Any man bidding a one-man car required to work on a two-man car will be paid at his one-man car rate for his regular hours.

A man operating a passenger car deadhead without a conductor or rear-end man will be paid his one-man car rate.

2. Ten cents per hour above employee's regular or overtime two-man car rate will be paid while operating snowplows, bus plows, sweepers, and salt cars, and to trainmen salting switches, and between December 1 and March 1 while operating sand cars. Men ordered to report and reporting for snowplow, bus plow, sweeper, and salt-car work will be paid at regular two-man car rates from the time at which they report as ordered until they take out snowplows, bus plows, sweepers, or salt cars.

Motormen operating passenger cars required to salt switches will be paid 10 cents an hour above their regular or overtime two-man car rate on the trip on which such salting is done. When such motormen are required to salt switches the salt will be furnished in pails.

3. Conductors and motormen, operators of one-man cars, and bus operators will be paid 5 cents per hour in addition to their regular, one-man, or overtime rate for instructing men.

4. (a) Extra and unassigned men making all reports required and taking work as assigned are guaranteed a minimum wage of \$3 per day. Said guaranty will be considered as earned, irrespective of hours worked, after 14 hours from the time of employee's first report, after which time employee will be paid for all time worked at his regular rate.

(b) Extra and unassigned men will not be required to remain on report more than one hour at any one report, excepting at the early report, when such men may be held until the last car runs out, but not later than 7 a. m. If held over the time above stated such extra and unassigned men will be paid for such excess time, such payments being applied on the minimum guaranty if not earned.

(c) Extra men will be required to make three reports daily except as provided in section 5 (a), and if required to report after 8 p. m. and are used or held for orders will be paid from 8 p. m. until relieved, such payment to apply on the minimum guaranty if such minimum has not been earned.

5. (a) If an extra man works or is held for orders after 12 midnight, he need not make the first report the following morning.

(b) The minimum pay does not apply if man is placed on the extra list for misses.

(f) When it becomes necessary to add men to the list each division will give preference to men laid off on their division in the last 24 months. If such men report within 10 days after date of registered letters sent to their last known address they will be reemployed and go to the foot of the list in the same order as when laid off.

Such men who have been in the company's service one year or more, when laid off, will return at the same wage rating as when laid off.

7. Overtime will commence after the total time allowed on employee's regular run has been worked excepting as provided in section No. 25 and for extra men not assigned temporarily to regular runs after having worked 9 hours. Overtime will be paid on line cars, trolley express cars, stone cars, and work trains after 10 hours.

9. Upon reasonable notice the company will at all times meet and treat with its conductors and motormen or properly accredited representatives from amongst their number, it being understood that any questions regarding interpretation of the working conditions or regarding discipline shall be taken up with the head of the department concerned; then, if necessary, with the manager of that division, if there be one; and later, if necessary, with the president and general manager. An appeal may be taken from the decision of the president and general manager to the board of directors.

Should the parties to this agreement be unable to arrive at an adjustment of the general wage scale during the term of this agreement, then the matter will be submitted to arbitration.

11. Conductors on passenger cars, other than special cars, and operators of one-man cars, and buses other than special buses, will be allowed 15 minutes per day at regular rates for making up their returns.

14. (a) Motormen and conductors will be allowed to bid passenger-car runs and bus runs as provided below, according to seniority of continuous service, and the bidding-in system shall prevail, the superintendent reserving the right to change allotments requiring a man to bid some other bus or trolley run if necessary for the good of the service.

At least 75 per cent of all regularly scheduled runs shall be completed within a spread or over-all time of 11 hours.

19. Operators of one-man cars will be allowed three minutes to change ends where the same can be done without blocking traffic. There will also be allowed two minutes at loops where the same can be done without blocking traffic.

22. On days of heavy travel and at other times when men are relieved for short periods amounting to less than one hour for lunch they will be paid for such time the same as if they were continued on the car. When possible, relief crews will be provided to make this relief.

29. Day men who have not been relieved at the completion of their day's work will not be compelled to work later than one and one-half hours after completion of their regular runs, unless, due to heavy travel, the relief time of such run has been modified. Such men who have not been relieved will notify starter or dispatcher that their relief has not reported. If they have not been advised within one hour after regular relief time of arrangements having been made to relieve them they will again call dispatcher and may run car into barn on arrival at their regular relief point next following completion of an hour and a half, unless the time in their run has been modified as provided above.

30. All conductors, motormen, and bus operators desiring the same will be entitled to four days a month off duty, and there shall be kept in the office of the superintendent of car houses a book which will show the names of all such men and the days assigned to them to be absent from duty: *Provided, however,* That in the event of a shortage of men at any time this order may be revoked.

The selection of days desired off will be governed by seniority, and such selection shall take place during the last five days of the month for the succeeding month.

*Shops, car houses, power stations, substations, and line department*

The following wage scale and working conditions are to be made effective June 1, 1926, in the shops and car houses represented and the Hartford power station and Hartford substations, and the Bridgeport, Derby & Hartford line department, and are to remain in effect for one year.

An increase of 2 cents an hour will be made in the wages of employees in the departments above referred to.

2. A day's work for all hourly paid employees in shops and car houses shall be 9 hours, to be completed inside of 10 consecutive hours, excepting on the Derby division, where a day's work is 10 and 11 hours and the night men the same hours as they work at present.

3. A day's work for all hourly paid employees in the Hartford power station to be 8 hours, 7 days a week, and in the substations of the Hartford division 12 hours, 6 days a week, or equivalent.

4. All time worked in excess of time named to be paid at the rate of time and one-half and will continue at overtime rate until employee is relieved.

6. The company agrees to allow five minutes at noon and at night to all garage, shop and car-house men, linemen, power-station repairmen, and yardmen to wash up.

8. On Saturday afternoons during the months of June, July, and August such shop employees as ordinarily quit work at 5 p. m. may quit work at 4 p. m. with pay for the nine hours. Where it is practicable, other shop employees will be allowed one hour with pay, some other day than Saturday, each week during these months.

10. All time is to be computed in units of 15 minutes.

11. Men in the shop who believe they are qualified for garage work may give their names to the master mechanic, who in turn will send the information to the head of the garage department and will post list of such names in the garage and men will be given positions in order of seniority when open, if they are qualified.

16. All tools which are the personal property of employees which are broken or worn out in the service of the company shall be replaced within four days after notice is given to the foreman of the department in which the man is employed.

17. Ice water will be furnished throughout the months of the year when necessary.

18. Soft soap and hot water will be furnished for washing-up purposes in shops, power stations, and the line department.

19. First-aid kits will be provided in shops, power stations, and line department.

20. All shops and car houses where men are employed shall be properly heated between the 1st of October and the 1st of April.

21. All pits are to be kept in sanitary condition and properly drained.

22. As it is necessary for certain shopmen and linemen to work on Sunday, an endeavor will be made to use a revolving list so that the same employee is not obliged to work continuously on Sundays or holidays.

**Window Glass Industry—National Agreement**

THE National Window Glass Workers have made an agreement with glass manufacturers for one year from September 1, 1926. Following are the wage scale and some extracts from the agreement.

BLOWERS' RATES PER 100-FOOT BOX, BY SIZE, STRENGTH, AND QUALITY

Size	Single strength			Size	Double strength	
	A	B	Fourth		A	B
8 by 10 to 10 by 15.....	\$0.56	\$0.47	\$0.47	6 by 8 to 16 by 24.....	\$0.67	\$0.57
11 by 15 to 14 by 20.....	.66	.55	.50	16 by 25 to 24 by 36.....	.99	.83
14 by 21 to 16 by 24.....	.73	.62	.56	24 by 37 to 30 by 40.....	1.05	.89
16 by 25 to 20 by 30.....	.79	.66	.59	30 by 41 to 26 by 51.....	1.17	1.00
21 by 30 to 24 by 30.....	.85	.68	.61	36 by 52 to 39 by 60.....	1.42	1.23
24 by 31 to 24 by 36.....	.87	.70	.63	40 by 60 to 40 by 78.....	1.88	1.64
25 by 36 to 30 by 41.....	.96	.77	.69	All above.....	3.48	3.09
All above.....	1.02	.82	.74			

There are to be no snappers employed. The double-up system of working shall be employed. Two blowers and two gatherers on each bench. The blower is to receive the above list of wages plus 30 per cent.

SECTION I, ARTICLE 1. Gatherers shall receive 85 per cent as much as blowers' gross wages for both single and double strength in all sizes.

ART. 2. Flatteners shall receive 27 per cent as much as blowers' list wages for both single and double strength in all sizes.

ART. 3. Cutters shall be paid for cutting, assorting, and booking, single strength 30 cents per box of 100 square feet; for cutting, assorting, and booking double strength, 37 cents per box of 100 square feet.

ART. 4. In the event of a change in market quotations on the price of glass it is agreed that representatives of the companies operating shall meet with the wage committee of the workers' organization for the purpose of revising this scale of wages and working rules to conform with prevailing market conditions.

ART. 10. Fifty rollers shall constitute a day's work. In case of a roller breaking on the crane or on the horse from capping off or cracking open, blowers and gatherers shall be privileged to make up such breakage so that 50 rollers are produced for the day's work.

ART. 11. Cutters shall receive price and one-half for all fractional sizes above 16 by 16 and double price for all fractional sizes booked 16 by 16 and under and double price for all sizes under 14 united inches.

ART. 12. Ten dollars extra shall be paid to cutters at the end of every four weeks cutting the big place.

ART. 13. A boss cutter shall be employed by all firms and shall be a member of the National Window Glass Workers in good standing. Boss cutters shall receive the following rate of wages for their services: For 12 pots or less, \$15 per week and \$3 for each additional 12 pots or less per week. This rate only to apply to cutters who are working.

ART. 22. Manufacturers shall furnish a plentiful supply of clean sawdust and shall have same placed in the blowing room conveniently. Manufacturers shall also furnish ice for drinking water, oil, soap, chalk; also must at their own cost piece blowpipes and put new handles on same.

ART. 24. Manufacturers shall deduct from the earnings of all members of the National Window Glass Workers working for them 2 per cent of the amount earned for dues to the National Window Glass Workers and shall within 10 days after each and every settlement present check for the full amount to the local president, payable to the secretary of the National Window Glass Workers, together with the names, amount earned, and the amount paid by each member during said period, same to be forwarded by the local president to the national secretary. No debt of any kind that a member contracts shall prevent the deduction of this 2 per cent, and any manufacturer who overpays or fails to deduct and forward said money for dues shall be liable to the National Window Glass Workers for the payment of same, whether the member has anything due him or not. This also applies to entire earnings of boss cutters and boss flatteners. All bills to be presented weekly with the amount earned. Said bills to have the amount of glass cut in each bracket and the amount of A and B.

ART. 25. The manufacturer shall deduct money from member's wages when notified to do so by the president, secretary, local president, or executive board member.

ART. 27. Forty-four hours per week shall be the maximum number of hours that blowers and gatherers shall be permitted to work. All work must cease in the blowing room not later than 4 p. m. on Saturday.

ART. 28. No more than five hours shall be worked consecutively without at least 30 minutes' tempo being taken.

ART. 29. The president and executive board of the National Window Glass Workers shall have the privilege at any time during the operative period of this agreement to place a checker in the plant of any company in which they see fit to do so. Said checker shall have the privilege of making a record of all glass cut and packed at said plant.

SEC. II, ART. 6. Any manufacturer introducing into his flattening house, blow furnace, tanks, or pots, new inventions or supposed improvements shall, so long as said improvements continue to be an experiment or until it shall have been demonstrated that it shall not be a loss to the workmen, pay a guaranty to all workmen whose work is or may be affected by said machine or inventions. Said guaranty shall consist of so much per box, and every six and one-half rollers to constitute a box of single strength, and the number of rollers, according to the

regular list, to constitute a box of double strength. Said guaranty to be arranged between the manager of the said works and the president of the National Window Glass Workers, subject to ratification of the executive board.

SEC. III, ART. 4. Blowers and gatherers are not permitted to work two successive shifts. Spare men are permitted to work 44 hours per week and may work two successive shifts, provided they do not work a number of hours exceeding the number worked by the regular shift.

ART. 6. No member of this association shall pay for piecing or repairing of pipes or tools at any time, and the manufacturer shall also furnish pipe handles and have them put on. A rental charge not to exceed 25 cents per week may be made when manufacturers furnish a full set of blowpipes.

ART. 13. No member or local when a difficulty arises shall have the right to cease work or pull pipes without the authority or permission of the national president or executive board through the local council.

SEC. IV, ART. 2. Where boss flatteners are employed they shall be members of the National Window Glass Workers. Boss flatteners are not permitted to discharge members of the National Window Glass Workers. Notice to be valid must be handed to the local president by the manager. The local president will place the notice in the hands of the member affected.

SEC. V, ART. 1. No cutter shall be allowed to cut more than three pots of single strength or three pots of double strength.

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## Awards and Decisions

### Clothing Industry—Chicago

**I**N CASE No. 1021, decided June 29, 1926, complaint was made that three cutters were not paid for Decoration Day. The reason given was that they were not present the day before or the day after the holiday. The firm took the position that during the period of suspension cutters were deprived of rights enjoyed by cutters who were working. The union stated "that since suspension is a prerogative of the firm, the cutters can not be said to have been absent voluntarily." On the second day after the holiday two of the cutters were reinstated by decision of the trade board and the third by agreement between the parties.

The board remarked at the hearing and would repeat that if the suspensions had been sustained and the cutters had been discharged there could be no claim for holiday pay under the rule of this firm. In the case of a suspension which is not sustained whether by agreement or decision those suspended have not severed their connection with the firm. The suspension notice reads usually: "This is not a discharge." The question to determine is whether the time lost by agreement or by decision is sufficient discipline or whether another day (the holiday) should be added. In the cases heard by the trade board it was contemplated in the decision that the two cutters should share responsibility with all the cutters. There is no reason, therefore, for denying them holiday pay. In the case of the cutter reinstated by agreement the board has not heard the evidence and is unable to determine on that basis what discipline is needed. Apparently the question of holiday pay did not occur to the firm or to the union when reinstatement was agreed upon. No one charges the firm with having suspended the cutter to avoid holiday pay. At the same time it is well to avoid any possibility of suspicion on this point. The board will assume that the discipline agreed upon did not contemplate the loss of holiday pay.

### Clothing Industry—New York City

A QUESTION of underproduction was decided by the impartial chairman in the New York clothing industry in case No. 282, October 1, 1926.

The firm complained that the cutting department during the preceding week gave 500 garments fewer than called for by the standard of production and asked for the right to dock the wages of the cutters proportionately. The firm also complained that the cutters had a tendency not to take their obligations to the firm seriously and that the firm did not receive a square deal.

The cutters replied that in reaching its results the firm had not made sufficient allowance for absent workers, that the cutters had always made up any shortage in the cutting room, and that the shortage of the week referred to had been due to the fact that the firm had not provided sufficient work.

The impartial chairman decided as follows:

According to the terms of an agreement with the firm, the cutters are to produce 4,200 garments per week and to make up any shortages. The impartial chairman directs the cutters to make up, as soon as possible, the shortage complained of by the firm. The chairman also wishes to impress upon the cutters that they must live up to the standard of production.

### Eastern Massachusetts Street Railway

AN ARBITRATION award signed by two arbitrators, with the third arbitrator dissenting, was made September 24, 1926, between the Eastern Massachusetts Street Railway Co. and its employees, members of 15 locals of the Amalgamated Association of Street and Electric Railway Employees of America. Several questions were laid before the board for decision, but most of them were brushed away with the statement that concerning them "there shall be no change made in the existing contract." The only changes made in the existing agreement related to wages and hours, regarding which the board spoke as follows:

1. Wages of all employees affected by this arbitration shall be increased 1½ cents an hour.
2. For all work performed over 8 hours per day men shall be paid at the rate of time and one-half. The 8-hour day is in force on three other systems in this State, on two of which at least the conditions are fairly comparable to those on this system. It was admitted by the company that so far as it concerned the operating of this system and furnishing of proper service it made no difference whether the hours of labor per day be 8 or 9. The 8-hour day is becoming more universal each year and is recognized by law in Massachusetts for public employees.

The request of the men for a 12½ per cent increase is not warranted by the evidence introduced. The present cost of living figures show that there has been little change from those of last year and then downwards about two-tenths of 1 per cent.

Explanatory of the working of the overtime rate, the board inserted the following illustration in section 12 of the agreement:

Runs 8 hours and less than 8 hours and 30 minutes shall be paid 8 hours and 30 minutes. Runs containing 8 hours and 30 minutes and less than 9 hours shall be paid 9 hours. All other runs shall be computed in 15-minute periods. To prevent misunderstanding in the interpretation of this paragraph, it is agreed

that for work actually performed between 8 hours and 8 hours and 30 minutes employees shall receive pay at the overtime rate of time and one-half; and for any remaining part of the one-half hour they shall receive pay at their regular hourly rate. For illustration: A man operating a one-man car with a run of 8 hours and 10 minutes shall receive pay for 8 hours at  $67\frac{1}{2}$  cents an hour, or \$5.40. He will receive time and one-half for the 10 minutes at his regular hourly one-man car rate. For the remaining 20 minutes of the half hour he will receive pay for one-third of an hour at the regular hourly one-man car rate, the one-man car rate referred to being  $62\frac{1}{2}$  cents plus 5 cents, or  $67\frac{1}{2}$  cents an hour. If a run is 8 hours and 25 minutes and up to 8 hours and 29 minutes, both inclusive, he shall be paid at the rate of time and one-half on 30 minutes. For work actually performed between  $8\frac{1}{2}$  hours and 9 hours employees shall receive pay at the rate of time and one-half, and for the remaining period within this one-half hour they shall receive pay at their regular hourly rate. All schedule runs with total time less than 8 hours shall pay 8 hours.

### Railway Conductors—Decision of Train Service Board of Adjustment for the Western Region

IN DECISION No. 2115, made August 26, 1926, in a claim by the Order of Railway Conductors against the Minneapolis, St. Paul & Sault Ste. Marie Railway Co., the board had before it the question of pay for terminal work. Article IV, rule 6, reads as follows:

Passenger conductors who are required to turn trains or perform switching at terminals shall be paid for actual time so consumed in addition to trip at regular overtime rates; also time consumed in loading or unloading baggage, mail, or express will be paid for the same as switching when done in connection with any of the above work mentioned in this rule.

Train No. 86, arriving at Sault Ste. Marie, has for a great many years headed down a wye  $1\frac{3}{4}$  miles from the station and backed into the depot. The west switch of the wye is just inside the western yard limits, and about 12 or 13 minutes are consumed from the time of the first stop at the wye until the arrival at the depot.

The conductor on train No. 86 is required to turn the train on the wye. Hence he claimed back time from April 1, 1925, under the above rule, switching time from the time the train stopped at the entering wye switch until all work in connection with the train was completed and the conductor relieved from duty.

The position of the management and the decision of the board follows:

We do not agree with the contention of the organization that they are entitled to this claim. Owing to the fact that it was a convenience to the company to perform this operation and that it possibly did take away terminal time for the crew if they were required to turn the train after arrival, we, therefore, agreed to commence paying terminal time from the arrival of the train at the west wye switch until crew was relieved and deduct 1 mile from their road mileage, making this settlement effective February 1, 1926, but declining to make any retroactive payments. We do not consider that a passenger train has arrived at its terminal until it has arrived at the depot.

*Decision.*—This claim is sustained upon same basis as payment is now being made.

## Stereotypers—Detroit

AN ARBITRATION award by Judge Frank Murphy was issued August 16, 1926, in a dispute between Stereotypers' Local No. 9 and the Detroit Free Press and Detroit Times, relative to the scale of wages to be in effect from May 1, 1926. The union demanded \$9 per 8-hour day or 7-hour night, with \$2 bonus for double shift, and \$10.30 for an 8-hour Saturday night. The publishers offered \$7.75 per 8-hour day or 7-hour night, with \$1.50 bonus for double shift, and \$8.85 for an 8-hour Saturday night.

Extracts from the opinion follow:

It has been difficult to avoid in this dispute principles that come to all wage disputes, foremost among them being the cost of living and conditions of industry. In the present instance both have been given careful consideration. The former question—cost of living—was presented in argument by both sides, while the latter was largely ignored. The publishers argued that this board should not take into consideration in determining the fair and reasonable wage for stereotypers the financial conditions of the publishers' business nor the conditions under which they operate or are likely to operate. It is contended that the condition of the publishers' business is not an issue and therefore should form no part in the deliberations and plans of the board. However, separating the two principles is easier to do in theory than in practice. Experience has gone far to demonstrate that neither the cost-of-living principle nor the condition of industry, if used one without the other, is a completely satisfactory basis for a policy of wage settlement. Both general conditions and conditions in the particular industry should be given weight in every wage dispute, and the latter itself should be a primary basis of decision. A study of general conditions throughout the country discloses general prosperity and high production, and in local newspaper business there is an obvious prosperity.

In industry, as in all else, the present is fleeting and the future is difficult to forecast, and an arbitration giving consideration to the condition of business principles must keep this fact constantly in mind. In the interest of industrial efficiency and friendly cooperation between the employer and employees wages should bear some relation not only to national wealth, but specifically to the product of the industry concerned. In the present instance the union has a right to assume that the growing productivity of the publishers' business entitles its members to a progressive standard of living. Under all the proofs and having in mind the recognized present general prosperity, it is fair to conclude that in the business of the publishers profits are likely to be high and on the increase. Therefore, generally speaking, they should be able to pay higher wages.

Great improvements have been made in recent years and still are being made by those who are engaged in industry. A limit to the possibility of increasing production has not been reached, and no doubt invention, new methods, and common sense, if worked together, will help increase production in the future as it has in the past. This industrial progress and the standard of living of workers should constantly move forward, and for this reason there is grave danger in paying wages exclusively on the cost-of-living principle and the living wage.

Economists, employers, and employees have in recent years directed their attention to a large extent to the question of real wages as distinguished from money wages for the reason that what dollars will buy is more important than the number of dollars received as a wage. It is only by constantly raising real wages and not just money wages that prosperity is brought about. An increase in wages may be illusory if it is an increase in name only, because the purchasing power of the money may be appreciably decreased. This consideration makes it necessary to measure with fine accuracy changes in price levels which occur from year to year and from month to month.

Careful examination has been made of all the exhibits introduced in connection with price levels from the base period, December, 1914, to December, 1925. Likewise, the wage scale during the same period has been closely scrutinized. This study has established the following facts:

First. That prices in Detroit advanced from December, 1914, to December, 1925, 88.2 per cent.

Second. That wages of stereotypers in Detroit advanced during the same period from \$24 to \$48.

Third. That 53.1 cents in December, 1914, would purchase as much as \$1 would purchase in December, 1925, and that the increase in real wages for stereotypers during this 10-year period was only \$1.48 per week, or, expressed in percentage, 6.1 per cent.

Fourth. That the percentage of increase in cost of living in Detroit from December, 1914, to December, 1925, is greater than for any other of the 32 American cities covered in the survey.

No attempt is here made to draw any other conclusion from these facts than that the increase in real wages to Detroit stereotypers from December, 1914, to December, 1925, has been trivial; that for a good portion of this time the stereotypers must have labored under conditions that made life difficult to sustain, because the advance in real wages failed completely to keep pace with the advancing cost of living; and that in comparing wages in other American cities with the Detroit scale some consideration should be given to the fact that the cost of living in Detroit has increased by a larger percentage during this period than in any other of the 32 cities considered. It follows that a money wage in other cities that appears to be equal to Detroit, or even less, may be appreciably more, depending upon cost of living, hours of labor, and other social and economic factors.

The present industrial organization of society is built upon the wage system, and as long as it survives it must justify itself by providing the wage earner with sufficient to live on in a manner becoming to his dignity as a man. This is not accomplished by furnishing him with a mere subsistence. The gulf between a mere subsistence wage and a decent and comfortable living wage should broaden, and especially when the industry concerned is not imperiled or in any way embarrassed as in the present case. A wage is not a living wage unless through frugality a wage earner may earn sufficient to develop within reasonable limits his physical, spiritual, moral, and intellectual faculties, and in addition be able to set aside a reserve to provide for accident, old age, illness, and misfortune.

Under the present social order the father is the natural provider for all members of the family. It follows that whenever the wage earner lacks the means to provide for the becoming maintenance of his wife and children marriage and home life are discouraged, women and children are obliged to labor, and there is brought about a steady deterioration and lowering of standards in the families affected. Therefore, a living wage means a family living wage.

Budget studies are essential and helpful in giving application to the living wage principle, but can not and should not control its use completely. All of the budgets submitted have been studied and compared. The visiting housekeeper's budget for Detroit, \$2,010.72, submitted by the publishers, is hardly applicable to the present dispute without considerable modification upward. Throughout this controversy it must constantly be borne in mind that we are seeking to determine a just wage for the members of a well-established skilled craft. The budget referred to was not calculated to apply to a skilled worker's family such as a stereotyper's. On the contrary, it was designed in the main as a guide for relief work for relief-giving organizations. It would be unfair to impose this budget on the families of Detroit stereotypers and would mean a recession with no good excuse from the standard of living now prevailing. Acceptance of this standard would only add to the perplexing problem now existing and would have a tendency to oblige housewives and children to labor.

It is not necessary here either to approve of the budgets offered in evidence or to arrange one as a model. However, a careful study of items and costs of the California commission's budget for clerks leads to the conclusion that the present stereotyper's wage of \$8 per day, or \$2,496 for a year of 312 working days, falls short of what is necessary for the comfortable and decent support of a stereotyper's family living in Detroit.

It is the contention of the publishers that under the present scale the average wage of stereotypers of Detroit is \$51.08, indicating an average annual income of \$2,656.16. These figures, of course, are built on the overtime earnings of the men, and for this reason these averages should not be a deciding factor in determining a just wage scale. Overtime work saps the physical and mental strength of the men, denies them recreation, and takes from them both the attention they should give to and care they should receive from home. In this connection it is observed that stereotypers of Detroit have not enjoyed the general reduc-

tion in weekly hours of labor that has taken place in their craft throughout the country, and that they still labor on an 8-hour day and 7-hour night schedule.

While there is no direct evidence bearing on the ability or inability of the employers to bear an increase in wages, there is abundant evidence of an increase in prosperity in the business of the employers. There has been no substantial change in the relation between wages and cost of living since December, 1914. No sound reason or principle requires that the relation between cost of living and wages which prevailed in December, 1914, should remain always constant and be adhered to as an ideal standard. At that time, for example, there was little difference in wage between stereotypers and day laborers. In the interest of both employer and employed, a progressive increase in standard of living and improvement in the economic situation of the wage earner should accompany a general increase in prosperity and living standards. It is the opinion of the board that an increase of \$3.60 per week in the wages of stereotypers would not be unreasonable in view of conditions in the industry and would be justified by the evidence submitted and the considerations herein mentioned. The following award is made:

(1) The minimum scale for journeymen working two consecutive full-time shifts in the same office at the request of the office representative shall be paid a bonus of \$2 for the second full-time shift over and above his regular pay.

(2) Eight consecutive hours or any part thereof between the hours of 6.15 a. m. and 7 p. m. shall constitute a day's work. Seven consecutive hours or any part thereof between the hours of 5 p. m. and 5 a. m. shall constitute a night's work, except on Saturday, when 8 consecutive hours between the hours of 2 p. m. and 5 a. m. Sunday shall constitute a night's work, and the pay for that night shall be \$9.84.

(3) The minimum scale of wages to stereotypers shall be as follows: Journeymen, \$8.60 per 8-hour day or 7-hour night.

# IMMIGRATION AND EMIGRATION

## Statistics of Immigration for September, 1926

By J. J. KUNNA, CHIEF STATISTICIAN, U. S. BUREAU OF IMMIGRATION

**W**OMEN outnumbered men in the homing migration of American travelers from abroad in September, this preponderance of women applying to both native and alien residents of the United States reentering the country. In recent years September has been a peak month for incoming passenger travel, and September, 1926, was no exception to this rule. During this month 71,268 United States citizens arrived from foreign countries, 39,742 being females and 31,526 males.

In the same month 60,977 aliens were admitted and 23,026 departed, the former comprising 35,297 immigrants and 25,680 non-immigrants and the latter 6,634 emigrants and 16,392 nonemigrants. This is an increase of both arrivals and departures over the previous month as well as over the corresponding period of 1925.

Of the 35,297 immigrant aliens, or newcomers for permanent residence in the United States, Canada, with 11,150, furnished the largest number, and Mexico, Germany, the Irish Free State, Italy, Scotland, England, Poland, and Sweden, in the order named, were the next largest contributors. Italy continues to lead all countries receiving emigrant aliens from the United States, 2,154, or about one-third of the total of 6,634 for the month, going to that country for future permanent residence. Less than 500 went to any one of the other countries during the same period.

The latest figures throw an interesting light upon the distribution of immigrant aliens by States. They show that the regulation of immigration by quotas has had the effect of scattering the newcomers more evenly throughout the country than before. There is no longer a rush to the congested cities of the East, but a marked drift to the Central West and to the States beyond the Rockies.

New York State still leads all others as the settling ground of the present-day immigration, but not by such a prodigious margin. For instance, during July, August, and September, 1926, there were only 20,302 immigrants who gave the Empire State as their destination, while 8,169 were recorded as leaving that State, a net balance of 12,133 for the three months, which by comparison with New York's share in former years seems amazingly small. Massachusetts received 8,813, and 2,026 left that State, a net balance of 6,787. Michigan received 8,813, and only 930 left that State, which gives Michigan a net gain of population by immigration proportionately greater than that for both New York and Massachusetts. Even Texas, considered usually as distinctively an agricultural State, received 11,963, with only 231 leaving, so that the Lone Star State, too, was not behind the above-mentioned Atlantic Coast States in proportionate net gain

by immigration. Of the Pacific Coast States, California received 6,451 and Washington 1,439, while 1,336 left the former and 267 the latter. The Southern States, as usual, gained but little by immigration, Florida receiving the largest number, 799 going to that State and 293 leaving. South Carolina received fewest of all the States—with just 17 incoming and 5 outgoing in the three months.

Some interesting information is shown concerning the character of recent immigration. The net gain of skilled labor in July, August, and September last was 11,354, compared with only 8,631 in the corresponding months of last year. There was a net gain of 7,808 common laborers this year as against a net loss of 1,871 last year. Net farm labor immigration amounted to 5,205 during the said three months of this year as compared with only 3,496 for the same period of 1925.

Of the alien applicants for admission to the United States at the seaports of entry during September, 1926, only eight out of every thousand were rejected for various causes under the general immigration laws. In this month 41,048 aliens sought entry at such ports and 338 of these were debarred, or eight-tenths of 1 per cent of the number applying. At points along the northern and southern land boundaries, 1,479 were rejected, making a total for the month of 1,817 aliens debarred at all ports. During the same month 885 aliens were deported from the United States under warrant proceedings, the principal causes for their deportation to the countries whence they came being: Entering without visa under the immigration act of 1924, mentally or physically defective, and criminal and immoral classes.

TABLE 1.—INWARD AND OUTWARD PASSENGER MOVEMENT FROM JULY 1 TO SEPTEMBER 30, 1926

Period	Inward					Aliens debarred from entering <sup>1</sup>	Outward					Aliens deported after landing <sup>2</sup>
	Aliens admitted			United States citizens arrived	Total		Aliens departed			United States citizens departed	Total	
	Immigrant	Non-immigrant	Total				Emigrant	Non-emigrant	Total			
1926												
July.....	22,283	16,096	38,379	25,981	64,360	1,746	7,052	17,970	25,022	60,223	85,245	816
August.....	29,286	20,467	49,753	52,683	102,436	1,601	7,376	15,410	22,786	42,248	65,034	1,121
September....	35,297	25,680	60,977	71,268	132,245	1,817	6,634	16,392	23,026	26,268	49,294	885
Total.....	86,866	62,243	149,109	149,932	299,041	5,164	21,062	49,772	70,834	128,739	199,573	2,822

<sup>1</sup> These aliens are not included among arrivals, as they were not permitted to enter the United States.

<sup>2</sup> These aliens are included among aliens departed, they having entered the United States, legally or illegally, and later being deported.

TABLE 2.—IMMIGRANT ALIENS ADMITTED TO AND EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING SEPTEMBER, 1926, AND FROM JULY 1 TO SEPTEMBER 30, 1926, BY RACE OR PEOPLE, SEX, AND AGE GROUP

Race or people	Immigrant		Emigrant	
	September, 1926	July to September, 1926	September, 1926	July to September, 1926
African (black).....	113	286	50	168
Armenian.....	127	288	4	19
Bohemian and Moravian (Czech).....	307	751	185	463
Bulgarian, Serbian, and Montenegrin.....	62	168	169	515
Chinese.....	288	501	332	942
Croatian and Slovenian.....	104	191	23	101
Cuban.....	337	821	75	218
Dalmatian, Bosnian, and Herzegovinian.....	7	17	46	143
Dutch and Flemish.....	332	783	78	277
East Indian.....	12	21	9	27
English.....	5,246	12,282	558	2,226
Finnish.....	93	175	22	133
French.....	2,666	6,040	117	521
German.....	4,629	11,296	345	1,236
Greek.....	150	537	264	1,052
Hebrew.....	860	2,180	13	74
Irish.....	5,820	12,693	123	629
Italian (north).....	193	605	376	890
Italian (south).....	1,130	4,177	1,804	3,890
Japanese.....	78	201	115	237
Korean.....	7	20	5	20
Lithuanian.....	42	109	42	172
Magyar.....	110	251	150	321
Mexican.....	6,154	17,638	177	615
Pacific Islander.....		4		4
Polish.....	435	874	332	1,036
Portuguese.....	58	215	200	799
Rumanian.....	41	93	128	440
Russian.....	139	291	37	165
Ruthenian (Russniak).....	26	110	1	10
Scandinavian (Norwegians, Danes, and Swedes).....	1,879	4,196	166	778
Scotch.....	3,002	6,815	155	926
Slovak.....	28	81	31	310
Spanish.....	134	282	186	838
Spanish American.....	361	1,062	137	414
Syrian.....	89	212	25	70
Turkish.....	17	33	24	68
Welsh.....	125	321	8	17
West Indian (except Cuban).....	35	107	88	215
Other peoples.....	61	139	34	83
Total.....	35,297	86,866	6,634	21,062
Male.....	19,566	49,883	4,569	13,767
Female.....	15,731	36,983	2,065	7,295
Under 16 years.....	5,480	13,669	299	952
16 to 44 years.....	26,870	65,238	4,707	15,176
45 years and over.....	2,947	7,959	1,628	4,934

TABLE 3.—LAST PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED TO AND FUTURE PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING SEPTEMBER, 1926, AND FROM JULY 1 TO SEPTEMBER 30, 1926, BY COUNTRY

[Residence for a year or more is regarded as permanent residence]

Country	Immigrant		Emigrant	
	September, 1926	July to September, 1926	September, 1926	July to September, 1926
Albania.....	24	65	37	92
Austria.....	84	188	50	158
Belgium.....	86	203	43	149
Bulgaria.....	38	76	29	67
Czechoslovakia.....	359	880	213	657
Danzig, Free City of.....	47	85	1	2
Denmark.....	291	568	36	148
Estonia.....	34	58	2	7
Finland.....	61	111	19	113
France, including Corsica.....	536	1,065	85	465
Germany.....	3,833	9,299	305	1,065
Great Britain and Northern Ireland:				
England.....	926	2,261	420	1,712
Northern Ireland.....	25	53	9	93
Scotland.....	1,085	2,597	112	769
Wales.....	92	278	6	14
Greece.....	114	458	269	1,051
Hungary.....	77	204	121	276
Irish Free State.....	3,617	7,548	92	440
Italy, including Sicily and Sardinia.....	1,213	4,512	2,154	4,761
Latvia.....	65	119	3	6
Lithuania.....	48	133	39	168
Luxemburg.....	1	5		1
Netherlands.....	176	409	31	112
Norway.....	674	1,282	65	329
Poland.....	708	1,609	329	1,027
Portugal, including Azores, Cape Verde, and Madeira Islands.....	42	137	195	795
Rumania.....	113	223	132	443
Russia.....	129	266	18	88
Spain, including Canary and Balearic Islands.....	68	145	165	687
Sweden.....	685	1,773	52	250
Switzerland.....	198	506	49	182
Turkey in Europe.....	16	49		10
Yugoslavia.....	111	299	189	690
Other Europe.....	59	116	1	2
Total, Europe.....	15,635	37,580	5,271	16,829
Armenia.....	4	5	3	10
China.....	320	584	344	967
India.....	20	46	11	48
Japan.....	82	224	117	257
Palestine.....	61	112	21	69
Persia.....	4	7	8	12
Syria.....	58	163	19	53
Turkey in Asia.....	2	16	13	31
Other Asia.....	43	76	8	18
Total, Asia.....	594	1,233	544	1,465
Canada.....	11,150	26,029	115	473
Newfoundland.....	383	734	30	98
Mexico.....	6,252	17,913	174	615
Cuba.....	449	1,134	103	350
Other West Indies.....	131	265	173	478
British Honduras.....	13	28	1	2
Other Central America.....	205	543	48	172
Brazil.....	114	307	11	47
Other South America.....	230	739	115	317
Total, America.....	18,927	47,692	770	2,552
Egypt.....	31	64	3	9
Other Africa.....	30	95	10	25
Australia.....	40	113	23	128
New Zealand.....	36	73	13	38
Other Pacific Islands.....	4	16		16
Total, others.....	141	361	49	216
Grand total, all countries.....	35,297	86,866	6,634	21,062

TABLE 4.—ALIENS ADMITTED TO THE UNITED STATES UNDER THE IMMIGRATION ACT OF 1924 DURING SEPTEMBER, 1926, AND FROM JULY 1 TO SEPTEMBER 30, 1926, BY COUNTRY OR AREA OF BIRTH

[Quota immigrant aliens are charged to the quota; nonimmigrant and nonquota immigrant aliens are not charged to the quota]

Country or area of birth	Annual quota	Admitted				Total during September, 1926	Grand total, July to September, 1926
		Quota immigrant		Nonimmigrant and nonquota immigrant			
		July to September, 1926	September, 1926	July to September, 1926	September, 1926		
Albania.....	100	35	11	246	102	113	281
Andorra.....	100			1	1	1	1
Austria.....	785	169	72	464	229	301	633
Belgium.....	512	131	64	543	237	301	674
Bulgaria.....	100	50	23	61	27	50	111
Czechoslovakia.....	3,073	803	302	1,272	646	948	2,075
Danzig, Free City of.....	228	77	39	23	2	41	100
Denmark.....	12,789	609	315	630	326	641	1,289
Estonia.....	124	51	30	43	18	48	94
Finland.....	471	112	58	579	359	417	691
France.....	13,954	825	410	2,075	1,226	1,636	2,900
Germany.....	51,227	9,533	3,895	4,663	2,192	6,087	14,196
Great Britain and Northern Ireland:							
England.....		2,762	1,101	8,842	3,591	4,692	11,604
Northern Ireland.....		150	59	210	89	148	360
Scotland.....	134,007	2,868	1,182	3,762	1,996	3,178	6,630
Wales.....		297	108	348	162	270	645
Greece.....	100	59	14	967	259	273	1,026
Hungary.....	473	105	46	595	298	344	700
Iceland.....	100	23	11	9	4	15	32
Irish Free State.....	28,567	8,429	3,968	2,034	1,138	5,106	10,463
Italy.....	13,845	1,163	362	8,591	2,591	2,953	9,754
Latvia.....	142	56	24	97	40	64	153
Liechtenstein.....	100	9					9
Lithuania.....	344	65	22	284	112	184	299
Luxemburg.....	100	4	3	39	25	28	43
Monaco.....	100	3	3	2	1	4	5
Netherlands.....	11,648	366	158	775	319	477	1,141
Norway.....	6,453	1,310	669	1,382	810	1,479	2,692
Poland.....	5,982	958	438	1,737	771	1,209	2,695
Portugal.....	503	109	36	641	128	164	750
Rumania.....	603	154	76	517	212	288	671
Russia.....	12,248	398	172	840	290	462	1,247
San Marino.....	100	52	30	1		30	53
Spain.....	1131	69	33	1,493	582	615	1,562
Sweden.....	9,561	1,901	736	1,349	733	1,469	3,250
Switzerland.....	2,081	453	159	899	461	620	1,352
Turkey in Europe.....	100	16	8	373	114	122	389
Yugoslavia.....	671	191	92	727	337	429	918
Other Europe.....	( <sup>1</sup> )	53	23	47	24	47	100
Total Europe.....	161,422	34,418	14,752	47,170	20,452	35,204	81,588
Afghanistan.....	100	1		1			2
Arabia.....	100	1					1
Armenia.....	124	17	11	27	16	27	44
Bhutan.....	100	1	1			1	1
China.....	100	39	15	3,307	1,059	1,074	3,346
India.....	100	35	10	200	80	90	235
Iraq (Mesopotamia).....	100	34	17	10	7	24	44
Japan.....	100	11	4	2,067	653	657	2,078
Muscat.....	100			2			2
Nepal.....	100						
Palestine.....	100	67	42	89	39	81	156
Persia.....	100	25	7	33	10	17	58
Siam.....	100	1	1	16	10	11	17
Syria.....	100	66	28	228	76	104	294
Turkey in Asia.....	( <sup>1</sup> )	28	17	184	68	85	212
Other Asia.....	( <sup>1</sup> )	49	22	55	24	46	104
Total Asia.....	1,424	375	175	6,219	2,042	2,217	6,594

<sup>1</sup> Annual quota for colonies, dependencies, or protectorates in other Europe, other Asia, other Africa, other Pacific, and in America, is included with the annual quota for the European country to which they belong. Quota for Turkey in Asia is included with that for Turkey in Europe.

TABLE 4.—ALIENS ADMITTED TO THE UNITED STATES UNDER THE IMMIGRATION ACT OF 1924 DURING SEPTEMBER, 1926, AND FROM JULY 1 TO SEPTEMBER 30, 1926, BY COUNTRY OR AREA OF BIRTH—Continued

Country or area of birth	Annual quota	Admitted					Grand total, July to September, 1926
		Quota immigrant		Nonimmigrant and nonquota immigrant		Total during September, 1926	
		July to September, 1926	September, 1926	July to September, 1926	September, 1926		
Cameroon (British).....	100			1	1	1	1
Cameroon (French).....	100						
Egypt.....	100	35	18	40	11	29	78
Ethiopia.....	100			1			1
Liberia.....	100	2		1			3
Morocco.....	100	1		4	1	1	5
Ruanda and Urundi.....	100						
South Africa, Union of.....	100	53	19	128	47	66	181
South West Africa.....	100						
Tanganyika.....	100						
Togoland (British).....	100						
Togoland (French).....	100						
Other Africa.....	(1)	21	7	40	13	20	61
Total Africa.....	1,200	115	44	215	73	117	330
Australia.....	121	45	17	1,192	406	423	1,240
Nauru.....	100						
New Zealand.....	100	44	15	342	113	128	386
New Guinea.....	100						
Samoa.....	100	3		4			7
Yap.....	100			2	1	1	2
Other Pacific.....	(1)	4	4	49	20	24	53
Total Pacific.....	621	99	36	1,589	540	576	1,688
Canada.....				25,967	11,025	11,025	25,967
Newfoundland.....				1,395	709	709	1,395
Mexico.....				22,301	7,947	7,947	22,301
Cuba.....				3,570	1,186	1,186	3,570
Dominican Republic.....				320	117	117	320
Haiti.....				71	25	25	71
British West Indies.....	(1)	146	62	1,618	587	649	1,764
Dutch West Indies.....	(1)	11	4	48	15	19	59
French West Indies.....	(1)	8	3	16	3	6	24
British Honduras.....	(1)	25	10	37	15	25	62
Canal Zone.....				6	5	5	6
Other Central America.....				1,231	442	442	1,231
Brazil.....				429	133	133	429
British Guiana.....	(1)	16	6	55	15	21	71
Dutch Guiana.....	(1)			4	1	1	4
French Guiana.....	(1)						
Other South America.....				1,621	543	543	1,621
Greenland.....	(1)			1			1
Miquelon and St. Pierre.....	(1)			13	10	10	13
Total America.....		206	85	58,703	22,778	22,863	58,909
Grand total, all countries.....	164,667	35,213	15,092	113,896	45,885	60,977	149,109

<sup>1</sup> Annual quota for colonies, dependencies, or protectorates in other Europe, other Asia, other Africa, other Pacific, and in America, is included with the annual quota for the European country to which they belong. Quota for Turkey in Asia is included with that for Turkey in Europe.

TABLE 5.—ALIENS ADMITTED TO THE UNITED STATES UNDER THE IMMIGRATION ACT OF 1924, DURING SEPTEMBER, 1926, AND FROM JULY 1 TO SEPTEMBER 30, 1926, BY SPECIFIED CLASSES

[The number of immigrants appearing in this table and in Table 4 is not comparable with the number of statistical immigrant aliens shown in the other tables, by races, countries, States, and occupations]

Class	September, 1926	July to September, 1926
<i>Nonimmigrants</i>		
Government officials, their families, attendants, servants, and employees.....	732	1,737
Temporary visitors for—		
Business.....	2,127	5,396
Pleasure.....	3,243	12,040
In continuous transit through the United States.....	2,371	7,589
To carry on trade under existing treaty.....	110	347
Total.....	8,583	27,109
<i>Nonquota immigrants</i>		
Wives of United States citizens.....	1,683	12,024
Children of United States citizens.....	1,546	11,444
Residents of the United States returning from a visit abroad.....	15,137	30,414
Natives of Canada, Newfoundland, Mexico, Cuba, Haiti, Dominican Republic, Canal Zone, or an independent country of Central or South America.....	<sup>2</sup> 19,391	<sup>2</sup> 48,940
Their wives.....	1,118	1,225
Their children.....	116	140
Ministers of religious denominations.....	65	179
Wives of ministers.....	31	90
Children of ministers.....	57	168
Professors of colleges, academies, seminaries, or universities.....	50	73
Wives of professors.....	15	20
Children of professors.....	4	6
Students.....	613	917
Veterans of the World War.....	428	1,753
Wives of veterans.....	59	192
Children of veterans.....	89	272
Total.....	37,302	86,787
Quota immigrants (charged to quota).....	15,092	35,213
Grand total admitted.....	60,977	149,109

<sup>1</sup> Wives, and unmarried children under 18 years of age, born in quota countries.

<sup>2</sup> Does not include aliens born in nonquota countries who were admitted as Government officials, visitors, returning residents, etc.

## Mexican Restriction on Immigration

A RECENT communication from the United States consul at Piedras Negras, Mexico, dated October 22, 1926, states that, beginning November 1, 1926, the Mexican immigration authorities will impose a head tax of 20 pesos<sup>1</sup> on all foreigners entering Mexico.

An identification card issued by a Mexican consul upon the presentation of a vaccination certificate signed by a reputable physician and certified at a Mexican consulate is also required. American citizens having identification cards do not need passports, and those entering Mexico for a period of less than six months will not be required to pay the head tax. In all cases, however, an identification card is required in order to pass the entry restrictions.

Immigrants not having a visible means of support, unless specifically authorized, will not be admitted, nor will anarchists, peddlers, smugglers, or escaped convicts.

<sup>1</sup> Peso at par=49.85 cents; average exchange rate for September, 1926=48.73 cents.

## The Mexican Immigration Problem

**R**ESTRICTION upon the immigration of Mexican laborers into the United States, is discussed by Prof. T. N. Carver, of Harvard University, in the April, 1926, issue of the American Bankers' Association Journal (New York).

Referring to the desire of some employers to encourage the immigration of Mexican peon labor to the United States, Professor Carver points out that cheap labor and poverty are inseparable. Moreover, he holds that the coming of these peons will mean another race problem.

The economic situation between the United States and Mexico is analyzed by Professor Carver as follows:

In the absence of interference, Mexico would import business training and capital and export unskilled labor. Business training and capital are scarcer in Mexico than here; unskilled labor is scarcer here than in Mexico. These are the primary facts in the situation. The reasons for their existence are simple, but their consequences are important.

The situation is such as always arises between any two neighboring countries, one of which has democratic institutions and a system of popular or universal education directed toward practical ends, the other of which has aristocratic traditions and no system of popular or universal education. The one will always have a relative abundance of business training and capital and a relative scarcity of the lower grades of unskilled labor. The other will always have a relative scarcity of business training and capital and a relative abundance of unskilled labor of the lower grades. The one will always, in the absence of restrictions, export business training and capital and import unskilled labor. The other will always, in the absence of restrictions, import business training and capital and export unskilled labor.

As a specific illustration of the working out of the above-described conditions the author cites the tendency before the World War for German managers and technicians to leave their native land, while the cheapest kind of common laborers were emigrating to Germany from some of the neighboring countries on the east and south. A similar trend, he states, is also observable within the United States itself, New England sending trained and talented recruits to the South and importing negro labor from the same section of the country.

According to Professor Carver, the placing of European immigration on a *quoto* basis "has made possible the present wage scale and general diffusion of prosperity in this country." The fact that immigrants born in Mexico are not on a *quoto* basis makes it possible for them to come to this country in large numbers. Professor Carver is of the opinion that if Mexico can not be induced to establish an educational system similar to that of the United States the immigration of Mexican labor into this country should be restricted.

## ACTIVITIES OF STATE LABOR BUREAUS

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**A**MONG the labor activities of State bureaus the following, reported either directly by the bureaus themselves or through the medium of their printed reports, are noted in the present issue of the Labor Review.

*California.*—Changes in volume of employment and pay roll in 673 establishments, page 175.

*Illinois.*—Changes in employment and earnings in factories, page 177.

*Iowa.*—Changes in volume of employment in various industries in the State, page 179.

*Maryland.*—Report on volume of employment in certain industries, page 180.

*Massachusetts.*—Changes in volume of employment in various industries in the State, page 181.

Minimum wage report for year ending November 30, 1925, page 47.

*New York.*—Changes in employment and pay rolls in 1,700 factories, page 182.

Report on cost of workmen's compensation during year ending June 30, 1925, page 77.

*Oklahoma.*—Changes in employment and pay rolls in 710 establishments, page 183.

*Wisconsin.*—Volume of employment in various industries, page 183.

# PUBLICATIONS RELATING TO LABOR

## Official—United States

CONNECTICUT.—Board of Compensation Commissioners. *Compendium of awards of the compensation commissioners under the workmen's compensation law, together with decisions on appeal of the Superior Court and Supreme Court of Errors of the State of Connecticut, June 1, 1924, to May 31, 1926.* [New Haven?] 1926. 451, 146 pp.

This is the sixth volume of selected cases of decisions by the commissioners, all of the decisions of the supreme court of errors to date of publication of the volume being reproduced in full. An analytical index is appended.

MASSACHUSETTS.—Department of Labor and Industries. *Annual report on the statistics of labor for the year ending November 30, 1926: Part II—Twenty-fifth annual directory of labor organizations in Massachusetts, 1926* (labor bulletin No. 148). [Boston, 1926.] 53 pp.

MICHIGAN.—State Library. Law Department. *Laws of Michigan relating to women.* Third edition, revised and enlarged. Lansing, 1926. 120 pp.

A compilation of laws affecting women, including a section on employment of women and children.

NATIONAL CONFERENCE ON OUTDOOR RECREATION.—*Proceedings of the second national conference on outdoor recreation held in Washington January 20 and 21, 1926.* Washington, 1926. viii, 175 pp. (69th Cong., 1st sess., Senate doc. No. 117).

Delegates to the second conference on outdoor recreation represented 80 organizations interested in outdoor life and 23 States. The subjects covered included recreation for industrial and rural workers; Federal interests in a national recreation policy; Federal and State wild-life administration; and State interests in a national recreation policy.

NEW YORK.—Department of Labor. *Special bulletin No. 146: Accidents compensated in year ended June 30, 1925.* A.—*Cost of compensation.* Albany, 1926. 67 pp.

A summary of this report is given on page 77 of this issue.

UNITED STATES.—Department of Agriculture. *Agriculture yearbook, 1925.* Washington, 1926. v, 1537 pp., maps, charts, illustrations.

In addition to much other material relating to agriculture, this yearbook contains tables showing for different periods the supply and demand of farm labor, actual and index numbers of farm wages by day and month and by State and geographic division, and index numbers and actual prices of various items bought and sold by farm families.

— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 416: Hours and earnings in anthracite and bituminous coal mining, 1922 and 1924.* Washington, 1926. iv, 92 pp.

Advance figures from this report were published in the Review for July, 1925, and for February, 1926.

— — — *Bulletin No. 419: Trade agreements, 1925.* Washington, 1926. iv, 151 pp.

The second bulletin of the United States Bureau of Labor Statistics devoted entirely to collective agreements between employers and employees, the first

(No. 393) covering agreements made during the years 1923 and 1924. An advance summary of this report was published in the Review for September, 1926.

UNITED STATES.—Department of Labor. Bureau of Labor Statistics. *Bulletin No. 428: Proceedings of the Industrial Accident Prevention Conference held at Washington, D. C., July 14-16, 1926.* Washington, 1926. vii, 169 pp.

An account of this conference was published in the August, 1926, issue.

— Women's Bureau. *Bulletin No. 53: The status of women in the Government service in 1925, by Bertha M. Nienburg.* Washington, 1926. vii, 103 pp.

A digest of this report is given on page 102 of this issue.

### Official—Foreign Countries

AUSTRALIA (VICTORIA).—Department of Labor. *Report of the chief inspector of factories and shops, 1925.* Melbourne, 1926. 48 pp.

On the whole, the industrial situation in Victoria was rather depressed during the year covered, with a considerable amount of unemployment. Nevertheless, the trend of wages was upward, and such reductions as took place were in most cases due to sliding scale arrangements based on the cost-of-living figures. In addition to fixing weekly wages, the wage boards have the power to set the maximum hours for which the wages are to be paid. The following figures show the range of hours adopted by the boards in their determinations for the year: Five boards fixed fewer than 44 hours; 33 boards fixed 44 hours; 11 boards fixed 45 to 47 hours; 117 boards fixed 48 hours; and 4 boards fixed more than 48 hours.

CANADA.—Bureau of Statistics. General Statistics Branch. *The Canada year-book, 1925: The official statistical annual of the resources, history, institutions, and social and economic conditions of the Dominion.* Ottawa, 1926. xxxi, 1080 pp., maps, charts.

Includes data on labor, wages, prices, production, and the cooperative movement in Canada, in 1925 and previous years.

CZECHOSLOVAKIA.—Office de Statistique. *Rapports, 1926, No. 14: Sociétés coopératives en Tchécoslovaquie en 1925.* Prague, 1926. 3 pp.

Data from this report are given on page 88 of this issue.

DENMARK.—Ministry for Foreign Affairs and the Statistical Department. *Denmark, 1926.* Copenhagen, 1926. 323 pp., illus.

This official Danish yearbook, published in English, contains much information about the country as a whole, its industries and institutions. The section on social conditions includes data on social insurance, legislation for protection of workmen, and relations between employers and workmen. Information on agricultural cooperative enterprises is given in the section devoted to agriculture.

GERMANY.—[Reichsarbeitsministerium.] *Reichsversicherungsordnung nach dem Stande vom 26. April 1926 mit allen Ausführungsvorschriften.* 2. Auflage. Berlin, 1926. 516 pp.

This volume contains the laws and statutes regarding German Government insurance, including sickness, accident, invalidity, and old-age insurance.

— [Reichswirtschaftsministerium.] *Statistisches Reichsamt. Statistisches Jahrbuch für das Deutsche Reich, 1926.* Berlin, 1926. [Various paging.] Charts.

The forty-fifth issue of the annual statistical handbook for Germany, covering 1925 and previous years with some data for 1926. Of interest to labor are the tables relating to labor disputes, social insurance, industrial establishments, and trade-unions.

GREAT BRITAIN.—[Home Office. Factory Department.] *Annual report for the year 1925.* London, 1926. 139 pp., chart. (Cmd. 2714.)

The section of this report dealing with working hours, the five-day week, and rest spells is summarized on pages 130 and 131 of the November Review. A digest of the report of the senior medical inspector is printed on page 67 of this issue.

— Imperial Economic Committee. *Report on marketing and preparing for market of foodstuffs produced within the Empire: Fourth report—dairy produce.* London, 1926. 147 pp., charts. (Cmd. 2725.)

Contains an extended survey of the methods of producing and marketing dairy products at home and abroad, from which the conclusion is reached that both in England and in the overseas Dominions "it will not be practicable to maintain the present standards of living among those dependent on the dairy industry unless the farming interests, without loss of time, prepare to meet such cutting of prices as may come from increased competition by the adoption of more efficient and cheaper methods of production." Various recommendations are given with a view to attaining this end.

— Medical Research Council. *Special report series, No. 100: Methods of investigating ventilation and its effects, by H. M. Vernon and others.* London, 1926. 71 pp., illus.

The methods of investigating ventilation and its effects discussed in the report include the measurements of variations in the velocity and temperature of the air currents, the use of the kata thermometer, the influence of cooling power and of variability of air currents on sensations of air movement, and the effects of temperature, air velocity, and clothing on the rate of cooling of the human body.

— *Special report series, No. 104: Reports of the committee upon the physiology of vision: I.—Illumination and visual capacities, by R. J. Lythgoe.* London, 1926. 80 pp.

This report is a review of recent literature relating to the eye, covering the effects of different intensities of illumination, visual fatigue resulting from different lighting conditions, and methods and apparatus for testing visual acuity.

— Ministry of Labor. *Report on an inquiry into the rates of wages, hours, and degree of industrial organization in the wholesale and retail grocery and provisions trade in England and Wales.* London, 1926. 58 pp.

— *Report upon the results of an investigation into the rates of wages, the hours of employment, and the degree of industrial organization in the light-refreshment and dining-room (nonlicensed) branch of the catering trade.* London, 1926. 69 pp.

The investigations were undertaken to throw light upon the desirability of the application of the trades board act to these lines of industry. The data collected are given in much detail.

INDIA.—Department of Commercial Intelligence and Statistics. *Statistical abstract for British India, with statistics, where available, relating to certain Indian States, from 1915-16 to 1924-25.* Calcutta, 1926. xi, 683 pp.

Contains statistics on various subjects, including population, education, emigration, cooperative societies, accidents to employees and passengers on railways, wholesale and retail prices, number of persons employed in different industries, and factory inspection.

INTERNATIONAL LABOR OFFICE.—*International Labor Conference, tenth session, Geneva, 1927. Sickness insurance (item 1 on the agenda).* Geneva, 1926. 84 pp.

Data from this report are given on page 79 of this issue.

JAPAN.—Bureau of Social Affairs. Section for Factory and Mine Inspection. *Brief summary of the report on factory inspection in Japan, 1924.* [Tokyo, 1925?] 9 pp.

JAPAN (TOKYO).—Municipal Office. Statistical Bureau. *Twenty-second annual statistics of the city of Tokyo, 1926*. Tokyo [1926]. 1543 pp., charts.

The section on industry contains a table showing average daily wages and number of ordinary hands and other employees, by occupation and sex, number of working days, and value of products, in factories worked and not worked by motive power, as well as the number of such factories, in the city of Tokyo in 1924. Another table shows the highest and lowest daily and monthly wages in various occupations, by years, 1915 to 1924, and by months, January to December, 1924.

NEW ZEALAND.—Department of Labor. *Report [for the year ending March 31, 1926]*. Wellington, 1926. 32 pp.

Information on factory accidents, taken from this report, is given on page 70 of this issue.

SWITZERLAND.—Finanz- und Zolldepartement. Statistisches Bureau. *Statistisches Jahrbuch der Schweiz, 1925*. Berne, 1926. xx, 330 pp.

Contains tables on cost of living, prices, wages, social insurance, etc., in Switzerland in 1925.

### Unofficial

AMALGAMATED CLOTHING WORKERS OF AMERICA. Research Department. *Bibliography on the Amalgamated Clothing Workers of America*. New York City, 11-15 Union Square, 1926. 20 pp.

COLUMBIA UNIVERSITY. *Studies in history, economics, and public law, No. 275: The Missouri & North Arkansas Railroad strike*, by Orville Thrasher Gooden. New York, Columbia University Press, 1926. 274 pp., map.

A documentary study of the strike on the Missouri & North Arkansas Railroad, 1921-1923, with particular reference to the attitude of the communities affected by the interruption of transportation toward the railroad company and the strikers.

— *Studies in history, economics, and public law, No. 283: The wages of unskilled labor in manufacturing industries in the United States, 1890-1924*, by Whitney Coombs. New York, Columbia University Press, 1926. 162 pp., charts.

DEUTSCHER HOLZARBEITER-VERBAND. *Jahrbuch, 1925*. Berlin, 1926. 260 pp.

This volume contains extensive statistics of wage movements, employment, etc., during 1925 for the German Woodworkers' Union.

GLASGOW, GEORGE. *General strikes and road transport*. London, Geoffrey Bles, 1926. 151 pp., maps.

An account of the road transport organization prepared by the British Government to meet national emergencies, with a detailed description of its use in the emergency of May, 1926.

INTERNATIONAL FEDERATION OF TRADE UNIONS. *World migration and labor*, by John W. Brown. Amsterdam, 1926. x, 398 pp.

This publication contains a study by the secretary of the International Federation of Trade Unions of the migration problem throughout the whole world, together with a report of the proceedings of the World Migration Congress held in London in June, 1926.

INTERNATIONAL WOMAN SUFFRAGE ALLIANCE. Committee on Family Endowment or Allowances. *Report and resolutions for the International Woman Suffrage Alliance Congress, 1926*. London, 1926. 7 pp.

In this document the committee strongly recommends that the International Woman Suffrage Alliance Congress demand "for mothers and children security of economic status and a share of their own in the wealth of the world," and also that the Congress express its belief that this security can best be brought about by family endowment.

LABOR RESEARCH DEPARTMENT. *Studies in labor and capital, No. IX: The coal crisis—facts from the Samuel Commission, 1925–26.* London, 1926. 79 pp.

A brief summary of the testimony presented to the royal commission appointed to consider the coal question, and of the conclusions and recommendations embodied in the commission's report.

LEAGUE FOR INDUSTRIAL DEMOCRACY. *Publication No. 13: The people's fight for coal and power, by H. S. Raushenbush.* New York, 70 Fifth Avenue, 1926. 36 pp.

LE VAN KIM. *Féminisme et travail féminin dans les doctrines et dans les faits.* Paris, Marcel Giard, 1926. 241 pp.

A study of the underlying principles of feminism and feminine work in France, including a discussion in the first part of the book of the influence of the industrial revolution, of doctrines of the reform and liberal schools of thought, the Christian social theories, and the socialist doctrines of Saint-Simon, Proudhon, Stuart Mill, and Bebel. The second part deals with the actual facts connected with women's work, including legal regulations, women's syndicalist organizations, and the developments since the war. There is a classified bibliography.

LOSCHI, MARIA A. *La donna nei sindacati.* Rome, Edizione de "La Donna Italiana," rivista femminile, 1926. vi, 20 pp.

A study of women in Italian trade-unions.

NATIONAL SAFETY COUNCIL. *The toll of public accidents.* Chicago, 108 East Ohio Street, 1926. 32 pp., charts.

Data from this report are published on page 65 of this issue.

PÉRIGORD, PAUL, and ROBINSON, HENRY M. *The International Labor Organization; A study of labor and capital in cooperation.* New York, D. Appleton & Co., 1926. xxix, 339 pp., chart.

An account of the history, structure, and operation of the International Labor Office.

ROBBINS, LIONEL. *Wages; An introductory analysis of the wage system under modern capitalism.* London, Jarrolds [1926?]. 94 pp.

TRUC, H. *Hygiène oculaire et inspection du travail.* Paris, Masson et Cie, 1926. 183 pp.

The author gives an account of the anatomy and physiology of the eye, of its various diseases, and of the results of various types of eye accidents. Other topics discussed are working conditions and natural and artificial lighting; the degree of visual acuity necessary for different trades, occupations, and professions; occupational eye accidents and diseases; and the relation of labor inspection to the protection of the eyesight of the workers.

VILLARI, LUIGI. *The Fascist experiment.* London, Faber & Gwyer, 1926. xiii, 253 pp.

A history and defense of the Italian Fascist movement.

WEISS, RAYMOND. *Un précurseur de la législation internationale du travail; Daniel le Grand (1783–1859), son oeuvre sociale et internationale.* Paris, Marcel Rivière, 1926. xi, 280 pp.

A study of the life of Daniel le Grand and of his work in the field of international labor legislation.

WOLFSON, THERESA. *The woman worker and the trade-unions.* New York, International Publishers, 1926. 224 pp.

A study of the characteristics of woman wage earners, the policy of the trade-unions towards their admission as union members, and a discussion of the question of union organization as against special protective legislation.

ZENTRALVERBAND DEUTSCHER KONSUMVEREINE. *Jahrbuch, 1926. Zweiter Band.* Hamburg, 1926. vi, 893 pp.

The second volume of the 1926 yearbook of the Central Union of German Consumers' Cooperative Societies. Contains a general detailed account of the progress of the union.