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OCT 27 1927

MONTHLY  
LABOR REVIEW

VOLUME 25

NUMBER 4



OCTOBER, 1927

UNITED STATES  
GOVERNMENT PRINTING OFFICE  
WASHINGTON  
1927

LABOR REVIEW

**CERTIFICATE**

This publication is issued pursuant to the provisions of the sundry civil act (41 Stats. 1430) approved March 4, 1921.

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15 CENTS PER COPY  
SUBSCRIPTION PRICE PER YEAR

UNITED STATES, CANADA, MEXICO, \$1.50; OTHER COUNTRIES, \$2.25

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## This Issue in Brief

*The tipping system is opposed by organized labor in practically all the trades in which the system is prevalent. Tipping is in essence merely a method by which the public supplements the inadequate wages paid by employers. It implies servility on the part of the recipient and is thus opposed to the principles of trade-unionism. The unions affected are in favor of the complete abolition of tipping and a corresponding increase in straight wages (p. 1).*

*A series of railroad arbitrations have been held during the year that the railroad labor act has been in effect. Under this act disputes which can not be settled by the parties themselves or through the mediation of the United States Board of Mediation may be referred to arbitration. Thus far all unsettled disputes have been so referred. In these arbitrations the employees, with few exceptions, have received some wage increase, although usually considerably less than requested. The outstanding case in which an upward adjustment of wages was denied was that of the conductors and trainmen on some 55 western railroads. In the case of maintenance-of-way arbitrations the increases ran as low as one-half cent per hour, or \$1.04 per month (p. 5).*

*The output per worker between 1899 and 1925 increased 45 per cent in agriculture, 171 per cent in mining, and 48 per cent in manufacturing and railway transportation, according to a study made by the United States Department of Commerce. Much of this increase in productivity is attributed to the increase in the use of power equipment. Thus, in manufacturing, the average horsepower of prime movers per worker was 2.1 in 1899 and 4.3 in 1925; while in mining and quarrying the increase was from 4.9 in 1902 to 6.2 in 1919 (p. 25).*

*Accidents in the iron and steel industry continued to decline in 1926, according to the annual study of the Bureau of Labor Statistics; the accident frequency in a large group of selected plants being 6.8 per 1,000,000 hours' exposure in 1926, compared with 8.2 in 1925 and with 60.3 in 1913 (p. 35).*

*The number of families provided for by new dwellings in 78 cities was 187,233 in the first half of 1927, compared with 201,685 in the first half of 1926, according to the semiannual report of the Bureau of Labor Statistics on building permits in principal cities. The average cost of one-family dwellings for which permits were obtained in the first half of 1927 was \$4,903 as compared with \$4,777 in the first half of 1926. Other details of the survey are given on page 87.*

*The average entrance wage rate for common labor in the United States on July 1, 1927, was 42.6 cents per hour as compared with 43.2 cents on January 1, 1927, and with 42.8 cents on July 1, 1926 (p. 126).*

*The modern wage policy of the American Federation of Labor emphasizes the importance of the factor of productivity and strives for higher "social wages—for wages which increase as measured by prices and productivity." A thorough analysis of the meaning and purposes of this new wage policy is made by the president of the federation (p. 129).*

*Industrial training for the natives of Alaska* is being carried on by the United States Bureau of Education. Three schools located at points accessible from the different sections of the Territory have been established and others are planned. The courses offered include house building, carpentry, boat building, furniture making, sled construction, operation and repair of gas engines, marine engineering, tanning, navigation, ivory carving, and basket weaving. The natives are said to possess extraordinary manual dexterity. As a result of the work of the Bureau of Education and other agencies, the primitive conditions of life in Alaska have gradually disappeared except in the more remote regions (p. 76).

*Unemployment insurance in Germany became effective October 1, 1927.*—The system is administered by the State, the cost being borne in equal proportions by the workers and the employers. The benefit is fixed according to the wage or salary of the unemployed person and embraces the benefit proper and a family allowance. The benefit becomes payable, as a rule, the eighth day after notification. The claim to benefit arises after 26 weeks' payment of premiums and the period of benefit is likewise limited to 26 weeks. The benefit, including family allowance, varies from 60 to 80 per cent of the standard wage, depending on the wage or salary class (p. 67).

*Social legislation in Uruguay is so advanced* that "one may regard this little South American State as a vast social laboratory in which experiments of interest not only to Uruguay but to the world at large have taken place," according to the authors of an article on this subject (p. 10).

*One day of rest in seven* is required for all industrial and commercial employees in Colombia, according to a recent law. Sunday is established as the rest day, but in the case of continuous industries, and in those in which Sunday closing would work hardship to the public, some other day in the week may be allowed, provided authorization is obtained from the Ministry of Industry. However, no worker may be employed on his rest day without his consent, and in case of being so employed he may choose between a compensatory rest day or not less than double pay for the time worked (p. 83).



MONTHLY  
**LABOR REVIEW**  
OF U. S. BUREAU OF LABOR STATISTICS

VOL. 25, NO. 4

WASHINGTON

OCTOBER, 1927

**Opposition of Organized Labor to the Tipping System**

**T**HE question of the desirability of abolishing the tipping system is receiving the attention of the trades subject to this method of remuneration. Conspicuous among these are the so-called "personal service" occupations—those of the Pullman porters, waiters and waitresses, chauffeurs and hack drivers, barbers, employees of beauty parlors, etc. In all of these the union has given serious consideration to the question, and in most instances the conclusion has been unfavorable to the continuance of the system. Especially is this likely to be true as the union gains in power and inclusiveness in its field. A basic wage sufficient to maintain the worker and his family in moderate comfort is the main objective of all trade-unions, and the union is aware that in any occupation in which tipping is prevalent or customary the fact that the worker is the recipient of gratuities is one of the main obstacles to the securing of the basic wage. The employer feels that the acceptance of tips by his employees relieves him of the obligation to pay full wages, and tips, thereafter, have to take the place of wages. The result is a wage wholly inadequate for the maintenance of a family, and to make up the deficit the employee must depend upon the generosity of the patron, an uncertain factor at best.

The unions oppose gratuities also on the grounds that receiving tips tends to detract from the independence of the workers and to create a servile spirit among them. As soon, therefore, as the union feels that it is strong enough to do so it is likely to press for the establishment of a fair basic wage and the abolition of the tipping system.

It is safe to say that the abolition of tipping would be welcomed by the public. Many patrons now tip because they feel that the tip insures better service, or because without it the service will be mediocre. Many do so because they are cognizant of the fact that the "tipped" occupations are usually underpaid jobs and that the tip is the necessary supplement to the wage; or do so, unwillingly, because they think that the tip is expected and they feel they must do the "usual" thing.

The tip is often an embarrassment to the giver in that he may be uncertain as to the amount he should give, and to the recipient in that there is implied, in the taking, a certain inferiority of status.

The attitude of the tipping public is well expressed in an editorial from *Collier's Weekly*, reproduced in the September, 1927, issue of the *Messenger*, as follows:

One of our best and most permanent evils is tipping. Reformers are always conducting a campaign against it. These campaigns get nowhere because they attack the practice from the wrong end. The average man tips waiters, barbers, porters, and others because he likes to pay his way and knows that in certain kinds of service custom orders a tip and employers reduce wages by the amount of the tips. \* \* \*

Tipping itself is an offense to the code of American business ethics. It belongs in countries where begging is a recognized life calling, where petty bribery of government employees is a recognized channel of revenue, where class distinctions are sharp and oppressive, and where cultivated servility is an art. But the custom is rooted in the United States and it will grow and thrive until the great army of the tipped rises in rebellion and creates and demands a right to straight pay.

Since the subject is now before the public it is of interest to see what action the unions concerned have taken or are considering on the subject.

#### Teamsters, Chauffeurs, etc.

**T**HE official policy of the International Brotherhood of Teamsters, Chauffeurs, Stablemen, and Helpers of America is that of opposition to the tipping system on the ground that acceptance of tips places the recipient in the position of a menial. The union takes the position that "the best cure for it is to raise wages." In the August, 1927, issue of the union's official magazine, Daniel J. Tobin, president of the union, makes the following statement:

One of the substantial things accomplished by our organization since its formation is that of discouraging the custom of tipping. The only branch of our craft in which tipping prevailed was amongst the carriage and hack drivers, of old, and this has been somewhat inherited by the taxicab drivers. This custom, however, is gradually being eliminated amongst union men due to the fact that our union has raised the standard of wages and brought up this class of workers to real high-grade, independent individuals.

#### Hotel and Restaurant Employees

**W**AITERS and waitresses notoriously suffer from low wages, it being expected that these will be supplemented by gratuities from the customers. The bad effect upon both workers and union is seriously recognized by the president of the Hotel and Restaurant Employees' International Alliance and Bartenders' International League of America. In his monthly letter to the membership, dated April 25, 1927, Mr. Flore discusses the various factors upon which the union must lay stress. Conditions of employment are among the most important, including the eight-hour day, and a living basic wage. He emphasizes the fact that "the time must come when the workers in the catering industry must reach the higher standards in life—the elimination of gratuities and the establishment of a basic wage."

Too long has the employer depended upon the consumer to pay for the service rendered, and the consumer, realizing that responsibility, is rapidly drifting from the service establishments to those of the nonservice type in order to avoid that responsibility. And the moral of that is that both employer and employee suffer from the loss of that trade. We are living in an age of transition and progress. The catering industry is passing through a period of evolution. Service establishments are rapidly giving way to other types of food emporiums where more or less unskilled service is required and no gratuities called for. In connec-

tion with this type of institutions commissary kitchens are established and prepared and cooked food is delivered in thermos utensils ready for consumption. This method of operation reduces the number of skilled mechanics required in the preparation and cooking of food to a minimum, lessens the overhead cost, and makes their operation serious competitors to the service establishments. In this transformation service employer and employee have a community interest. We, on our part, assume the task of bringing the public back to the thought of former methods and environments, while the employer must assume the responsibility of paying his employee a wage worthy of his hire, with hours and conditions of employment which encourage his activity, and that brings us down to the question of salesmanship and wastes.<sup>1</sup>

The July 30, 1927, issue of *Labor*, the organ of the railroad brotherhoods, reports the attitude of the New York City local of waiters and waitresses as revealed in the testimony of its secretary-treasurer who is also vice president of the national union. He is reported as saying:

The union has made several attempts to get a living wage for its members, but has failed. They are compelled to depend on the charity of the public. We are opposed to tipping, but there is nothing else to be done until a living wage is guaranteed employees of restaurants and hotels.

#### Pullman Porters

THE Brotherhood of Sleeping Car Porters is a comparatively new organization, having been formed during the summer of 1925. Although it claims as members nearly 7,000 of the 12,000 colored maids and porters employed by the Pullman Co., it has had an uphill struggle for recognition as the representative of the employees.

Late in 1926 the brotherhood, acting under the terms of the railroad labor act of 1926, requested a conference with the company for the purpose of discussing certain desired improvements in conditions. The request being denied, the brotherhood took its case before the United States Mediation Board. The main question in the dispute—that of the right of the brotherhood to represent the employees—is now before the board for determination.<sup>2</sup>

One of the main demands of the brotherhood is that the tipping practice be abolished. The union points out that the minimum wage rate of porters is \$72.50 per month. Overtime is received after 11,000 miles have been traveled, such pay raising the average monthly compensation received from the company to \$78.11. This was disclosed by returns on a questionnaire from 673 regular and 104 extra porters. The tips averaged \$58.15 per month. The union is making a stand for a minimum rate of \$150 a month and the abolition of the tipping system.<sup>3</sup>

The brotherhood has even filed a complaint with the Interstate Commerce Commission asking that the commission require the Pullman Co. to cease "informing and instructing applicants for positions as porters that they may expect increment to their wages from passengers, and from inducing or permitting porters in its service to receive gratuities from passengers, and from continuing to fix its wage rates for porters at an amount insufficient to enable them to remain in the service \* \* \*"<sup>4</sup>

In the words of one of the brotherhood's organizers: "In their struggle to organize, the porters and maids have set their faces

<sup>1</sup>The Mixer and Server (Cincinnati), May 15, 1927, p. 7.

<sup>2</sup>The Messenger (New York), August, 1927, p. 284.

<sup>3</sup>Idem, May, 1927, pp. 164-166.

<sup>4</sup>United States Daily, Washington, Sept. 19, 1927.

resolutely against the 'tipping system' as a method of rewarding them for the many excellent services they render the traveling public. This phase of the campaign \* \* \* marks the porter's struggle as the most significant effort of the Negro since his emancipation. He has come to understand that a firm and balanced manhood is incompatible with a dependence on public gratuities; that tips carry with them a haunting and horrible sense of insecurity, to say nothing of the lack of dignity. Tips for the Negro as a reward for his labor bring back to the dim corners of his memory years of sorrow and bitterness spent in slavery; and they also tend to keep alive the the fog of prejudice and ill feeling."<sup>5</sup>

### Barbers

THE desirability of tipping is being thrashed out in the Journeymen Barbers' International Union. The question was precipitated by the action of the employers' organization, the Associated Master Barbers, in its convention held in November, 1926. That convention passed the following resolution:

Whereas the acceptance of gratuities, known as the tipping habit, is prevalent among master and journeymen barbers throughout the country; and

Whereas we believe that the practice has lowered the esteem of the public for the profession, has made uniform shop service almost impossible to the great detriment of the public, has tended to disrupt the morale of the shop employee and has prevented more general barber patronage to the inestimable financial loss of the profession; Therefore, be it

*Resolved*, That we, the delegates to the Associated Master Barbers of America, in convention assembled at Des Moines, Iowa, November 8, 9, 10, hereby go on record as being emphatically opposed to the acceptance of gratuities by master and journeymen barbers; and be it further

*Resolved*, That we earnestly recommend to the affiliated locals of this national association that they respectively enact local legislation forbidding their members to accept gratuities and providing for the enforcement of this measure; and be it further

*Resolved*, That we hereby request the official and active cooperation of the Journeymen Barbers' International Union of America in the abolishment of the vicious "tipping" habit and urge upon them that they forbid their members to accept gratuities in shops where the master barber will cooperate to this end; be it further

*Resolved*, That a copy of this resolution be forwarded by the national secretary to every affiliated local of the Associated Master Barbers of America and to the office of the Journeymen Barbers' International Union of America at Indianapolis, Indiana.<sup>6</sup>

Since the publication of the resolution in the official journal of the union the matter has been discussed pro and con, the correspondents being about equally divided in the matter. The president of the union, however, has unequivocally expressed himself in opposition to the tipping practice, stating that, in his opinion, "there is no honest man who dare deny the tipping system is a bad one." He opposes the practice because it breeds servility on the part of the recipient, because it lowers his standing, and because it does not create an incentive for a fair wage.<sup>7</sup>

As already stated, much discussion is taking place in the columns of the union magazine, and the matter will doubtless come up for attention at the 1927 convention of the union.

<sup>5</sup> Locomotive Engineers' Magazine, April, 1927, p. 260.

<sup>6</sup> The Journeymen Barber (Indianapolis, Ind.), February, 1927, p. 14.

<sup>7</sup> Idem, issues of November, 1926 (p. 448), and January, 1927 (p. 555).

## Results of Arbitration Proceedings under Railroad Labor Act of 1926<sup>1</sup>

**U**NDER the terms of the railroad labor act of 1926 a board of mediation of five members was appointed. This board began operation in July, 1926.

The act provides means for both mediation and arbitration of labor disputes. Disputes between carriers and men upon which the parties are unable to reach an agreement may be submitted for mediation to the United States Board of Mediation. If mediation fails, a special board of arbitration may be set up, consisting of one or two representatives each of men and management, and one or two "neutral" arbitrators agreed upon by the other representatives. If the parties fail to agree upon the neutral arbitrator or arbitrators these may be appointed by the board of mediation. The parties bind themselves to accept the decision of the arbitrators.

Up to September 1, 1927, many arbitration proceedings had been entered into under the new act, involving blacksmiths, clerks, conductors and trainmen, firemen and enginemen, maintenance-of-way employees, telegraphers, train dispatchers, etc.

In the main, the men have been successful in obtaining increases in wages, though usually these were not so large as were asked for. The smallest rate of increase granted was given in the case of the maintenance-of-way employees on the two railroads—the Louisville & Nashville and the Chicago & North Western—for which the trackmen's cases have been decided. The increases in these two cases ranged from one-half cent to 3 cents per hour, or from \$1.04 to \$6.24 per month.

The outstanding case in which an upward adjustment of wage rates was denied was that of the conductors and trainmen on some 55 western railroads. This action on the part of the arbitration board came as a surprise, especially since these classes of employees on the railroads of the East and Southeast had just been granted an increase of 7½ per cent.

### Railway Clerks, Freight Handlers, and Station Employees

**T**HE first arbitration case handled under the new act was that involving the rates of pay of railroad clerks on the Nashville, Chattanooga & St. Louis Railway. The award, made October 29, 1926, increased the combined compensation of the whole group of employees involved by \$125 a day, or \$3,250 per month, divided among the clerks in proportion to the salary being received at the time the award was made.

A case, involving 65,000 employees of the American Express Co., which was carried over from the old Railroad Labor Board, was referred to arbitrators soon after the creation of the United States Board of Mediation. The men asked for increases of from 11½ to 12 cents per hour. By the decision of the arbitrators on January 13, 1927, an increase of 2½ cents per hour was granted.

Wages of the employees of the New York Central Railroad Co. and the Grand Central Terminal were increased 6 per cent, or about

<sup>1</sup> Data are from text of agreements of boards and from Labor (organ of the railroad brotherhoods), issues of Apr. 2 to Sept. 24, 1927.

3 cents an hour, by an arbitration decision rendered March 26, 1927. Exactly one month later station employees of the Boston & Maine Railroad were granted increases amounting to about  $5\frac{1}{2}$  per cent.

Increases of pay ranging from 2 to 7 cents per hour were granted to nearly 10,000 employees of the Southern Pacific Railroad Co. by a decision given at the end of April. The award was made retroactive to January 1, 1927. The employees covered by the award included clerical employees, freight, baggage, and mail handlers, train and engine crew callers, elevator operators, watchmen, perishables inspectors, and others.

Negotiations for a wage increase which terminated in an arbitration decision rendered July 16, 1927, were begun between the Brotherhood of Railway Clerks and the Southern Railway Co. in August, 1925. The dispute was ready for hearing when the Railroad Labor Board was abolished, necessitating beginning the negotiations anew, under the 1926 act. The men and the carrier being unable to come to an agreement, and the efforts of the United States Mediation Board being equally unsuccessful, the matter was referred to a board of arbitration. The award of this board granted an increase of  $2\frac{1}{2}$  cents an hour to some 6,000 employees, effective July 16, 1927. The brotherhood had asked for a flat increase of 6 cents per hour.

About 9,700 employees of the Illinois Central Railroad Co., by an arbitration decision rendered August 24, were granted a 5 per cent increase in the rates of pay. This amounted to a fraction less than 3 cents an hour for clerks and 2.4 cents an hour for freight handlers.

About the same time the employees of the Wabash Railway Co. were granted increases— $3\frac{1}{2}$  cents per hour for clerks, 2 cents per hour for station employees and chore boys,  $2\frac{1}{2}$  cents per hour for freight handlers, and 3 cents per hour for sealers, scalers, and fruit inspectors. Stowers, stevedores, and callers were given a rate 4 cents per hour above that of freight handlers.

The demand of some 7,500 clerks on the Chicago & North Western Railway for an increase of 15 cents an hour will be heard before an arbitration board.

#### Conductors and Trainmen

THE first wage movement of the railway conductors and trainmen under the new act began with the filing of claims for wage increases of \$1 to \$1.50 per day on the eastern railroads. The parties failing to reach a settlement, the matter was taken to arbitration and the award of the board was rendered December 1, 1926, making a general  $7\frac{1}{2}$  per cent increase in wage rates. The same increase was subsequently agreed to by the Southeastern railroads.

The Order of Railway Conductors and the Brotherhood of Railway Trainmen then attempted to obtain similar benefits for their members who were employed on 55 western railroads. Approximately 70,000 workers were affected by arbitration proceedings brought in the western district, and this number did not include employees of the Chicago & Alton Railroad Co., which was not a party to the agreement, but which agreed to abide by the decision of the arbitrators. The award of the arbitration board, however, denied any increase in rates of pay of the conductors and trainmen, but granted a  $7\frac{1}{2}$  per cent increase to yardmen.

### Firemen and Enginemen

THE 7½ per cent increase awarded to the conductors and trainmen on the eastern railroads was extended by agreement, without resorting to arbitration, to the firemen and enginemen on those roads. The Brotherhood of Locomotive Enginemen and Firemen then sought to obtain an increase for those of its members who were employed on the southeastern railroads. It was unable to persuade the officials of those carriers to make the increase, and an arbitration agreement was therefore signed early in April, 1927, by the Brotherhood and 12 southeastern railroads. It was reported at that time that the arbitrators' decision would affect directly some 7,500 workers, and probably at least 6,000 more indirectly, it being "taken for granted that eventually the decision of the board will be accepted by those lines which are not involved in the arbitration proceedings." The men asked for increases in wages amounting to \$1 per day for men working on engines of less than 250,000 pounds on the drivers and \$1.25 for those on engines of over that weight. The board rendered its decision June 20, giving increases of 35 cents a day for men in passenger and yard service and 40 cents a day for men in freight service; this, it was estimated, amounted to an increase of about 7 per cent in the existing rates.

The employees of 12 carriers were affected by the increase. The Southern Railway Co., the Seaboard Air Line Railway Co., and several other railroads of the territory were not parties to the arbitration. Practically the same increases were obtained for 3,500 employees of the Southern Railway Co., however, by an agreement reached between the men and the company early in July. Simultaneously demand was made upon the western railroads. Negotiations failed, as did also the efforts of a Federal mediator, and an agreement to arbitrate was reached early in August. No award has as yet been made in the case.

### Locomotive Engineers

WAGE negotiations on the eastern railroads began May 23, 1927, the union asking for an increase of 15 per cent for its 30,000 members employed by these roads. Action was postponed, however, until after the close of the convention of the Brotherhood of Locomotive Engineers, when negotiations were reopened, July 25. The services of the United States Board of Mediation were requested a few days later, and an agreement was reached by which the men were to receive an increase of 7½ per cent, effective August 1. Thus a 7½ per cent increase has been made on the eastern railroads for conductors and trainmen, firemen and enginemen, and locomotive engineers.

Conferences with the southeastern railroads began August 16, mediation failed, and the parties have agreed to arbitrate. It is understood that after an agreement has been reached wage demands will be made upon the western carriers.

### Maintenance-of-way Employees

THE Chicago & North Western Railway Co. and the Brotherhood of Maintenance of Way Employees on March 24, 1927, signed an agreement to arbitrate the wage demands of the men, this being the

first action of the brotherhood under the terms of the act of 1926 involving the employees of an entire railway system. Similar action was taken with the representatives of the Louisville & Nashville Railroad Co., the men asking in both cases for a flat increase of 5 cents an hour. These two actions, it was reported, involved some 24,000 men.

The arbitrators in the case of the Louisville & Nashville Railroad Co. awarded increases ranging from 1 cent to 2 cents per hour. That means an advance of \$2.08 to \$4.16 a month if the men work 8 hours a day for 26 days a month.

In the Chicago & North Western case the award divided the men into 22 classes and granted increases ranging from less than one-half cent to 3 cents per hour in 9 classes; in 10 classes no change of rate was allowed; and for 1 class the minimum hourly rate was reduced from 38 to 35 cents per hour. In one class the monthly rate was abolished and an hourly rate substituted and in another no change of rate was made, but the minimum salary was raised from \$40 to \$55 per month.

The wage controversy of the brotherhood with the Chicago, St. Paul, Minneapolis & Omaha Railway Co. has been referred to an arbitration board.

#### Signalmen

A DEMAND upon the Baltimore & Ohio Railroad Co. that its signalmen be paid the current rate of 78 cents per hour was resisted by the carrier, mediation was unsuccessful, and it was then decided that the matter should be submitted to arbitration. Renewal of direct negotiations, however, led to an agreement by which the road will pay the current rate. The same rate was also obtained by agreement on the Central Railroad Co. of New Jersey.

The request of the signalmen for an increase of 11 cents an hour on the Louisville & Nashville Railroad Co. will be heard by a board of arbitration in the near future.

#### Telegraphers

THE first action of the Order of Railroad Telegraphers under the act of 1926 was taken to secure an adjustment of wages, amounting to about 8 cents per hour, for some 1,400 of its members employed on the Northern Pacific Railway Co. Arbitration proceedings began March 25, 1927. This was another case which had originally been inaugurated in 1925, but in which no agreement could be reached. The arbitrators' decision, handed down during the latter part of April, granted an increase of 3 cents per hour.

A dispute involving both rules and wages of telegraphers of the Grand Central Terminal has been submitted to arbitration.

#### Train Dispatchers

WAGE demands of the Train Dispatchers' Association upon the Mobile & Ohio Railroad Co. were submitted to an arbitration board early in April, 1927, and its demands upon the Louisville & Nashville Railroad Co. went to arbitration about the middle of May. A decision rendered late in September gave the dispatchers on the latter road an increase of 58 cents a day.



## Cases Settled by Agreement and by Mediation

THE above discussion has in general covered only cases in which, it having been found impossible for the parties to agree either by themselves or with the good offices of a third person, the settlement of the matter was left to arbitrators selected by the parties involved. In addition, however, many cases have occurred in which an amicable settlement has been reached between men and management. Thus, the Soo Line and its telegraphers were able to settle a wage dispute, the telegraphers obtaining an increase in the rate per hour of about 3 cents. In like manner, the Baltimore & Ohio Railroad Co. agreed to an increase of 5 per cent for its clerks, and the New York, New Haven & Hartford Railroad to a general increase for its clerks. As already noted, the southeastern railroads granted to their conductors and trainmen the 7½ per cent increase awarded by an arbitration board to employees of this class on railroads of the East, while the Southern Railway Co. agreed to extend to its firemen and engine-men practically the same increase obtained by arbitration on the other southeastern carriers. After a sharp dispute, telegraphers on the Chicago, Burlington & Quincy Railroad Co. obtained an agreement from the company by which these employees were granted an increase of 2½ cents per hour.

Mediation by the United States Mediation Board has resulted in settlements in many other cases, such, for instance, as the 3 per cent increase obtained by the telegraph and tower service employees of the Southern Pacific Railroad Co., the increase ranging from 2 to 7½ cents per hour obtained by railway clerks on the Maine Central Railroad and of 2½ cents per hour on the Central Vermont Railway Co., the 7 per cent increase secured by the engineers on eastern railroads, a slight increase for certain classes of maintenance-of-way employees of the Southern Pacific Railroad Co., and many others concerning which details are not available.

It was reported that of 289 cases submitted to the United States Mediation Board up to September 17, a settlement had been brought about in 145.

## Labor Legislation in Uruguay

By PERCY A. MARTIN, professor of history in Stanford University, California, and EARL M. SMITH, director of the Instituto Pan Americano of Montevideo, Uruguay

TO THE student of social progress as reflected in labor legislation no Latin-American country offers a more promising field for investigation than Uruguay. Though this little Republic, created in 1828 as a buffer State between Argentina and Brazil, has not escaped the cycle of revolutions, dictatorships, and political convulsions to which all of our neighbors south of the Rio Grande have at one time or another fallen heir, the advent of the twentieth century witnessed the dawn of a new era. To a greater extent, possibly, than any of the other South American States Uruguay has succeeded in squaring the theory with the practice of democracy. To be sure, conditions have been singularly propitious. Nature has been lavish in her gifts to Uruguay. Though in area only as large as New England with the addition of Maryland,<sup>1</sup> over 85 per cent of Uruguay's surface is admirably adapted for agriculture or stock raising. The country lies entirely in the South Temperate Zone. The climate is healthful and invigorating. The population,<sup>2</sup> almost entirely of white extraction, is industrious and intelligent. A progressive government has by means of an excellent school system done much to banish illiteracy. Finally, the political party which for years has been in power (the so-called Colorado) has inscribed on its platform a long series of social and economic reforms, many of which have in recent years been written on the statute books. In fact, one may regard this little South American State as a vast social laboratory in which experiments of interest not only to Uruguay but to the world at large have taken place.

### Labor Legislation

THE first important piece of legislation to demand notice is the law of July 21, 1914, for the prevention of accidents. Industrial establishments, construction companies, railroads, mines, quarries, and a long list of other industries are obliged to take effective measures to safeguard their employees from accident. The law has been amplified and rendered enforceable by means of executive decrees which specify in great detail the type of safeguards to be established in each industry or group of industries. Provision is also made for government inspection of machinery, installation of safety appliances, and isolation of dangerous machinery. Each infraction of the law is punished by a fine of 50 pesos.<sup>3</sup>

Despite the fact that many of the minute regulations of this law are only imperfectly carried out there has been an encouraging decrease in industrial accidents. At the beginning of 1925 there were 55,500 persons employed in industries, according to the statistics supplied by Dr. César Charlone, director of the National Labor

<sup>1</sup> Uruguay contains 71,153 square miles.

<sup>2</sup> In 1924 the population amounted to 1,640,214.

<sup>3</sup> República Oriental del Uruguay. Legislación obrera del Uruguay. Año I, No. 1 (Montevideo, 1921), pp. 27 et seq. The Uruguayan peso, which is divided into 100 centésimos, is worth slightly more than the American dollar.

Bureau.<sup>4</sup> During the first six months of 1925 there were in Uruguay 3,095 reported industrial accidents. These included 6 cases of death, 1 of permanent total disability, 13 of partial disability, 2,957 of temporary disability; in the remaining 118 cases no data are available. An examination of the machinery in the larger industrial establishments in Montevideo, especially the great packing houses, reveals fully as many and as efficient safety devices as are to be found in corresponding plants in the United States. On the other hand, the introduction of labor-saving devices has proceeded rather slowly. A great deal of carrying is done. Gangs of stevedores still load and unload ships. Bricks, instead of being elevated by power, are thrown or carried. Dirt and débris are removed by baskets. Comparatively few hand trucks and freight elevators are used.

*Workmen's compensation law.*—Another landmark in labor legislation closely allied to the accident prevention law is the law of November 26, 1920, providing for compensation for industrial accidents.<sup>5</sup> The law is most comprehensive; not only does it refer to factories in general but 218 industries are specifically mentioned. The law provides for compensation to the workmen as follows:

(a) For temporary disability lasting more than 7 days, half pay, beginning the eighth day after the accident. If the incapacity lasts longer than 30 days the compensation begins with the day following the accident.

(b) For permanent total disability, two-thirds of the wages for life.

(c) For permanent partial disability, a life annuity equal to one-half the reduction in wages due to the disability. If the reduction is less than 10 per cent no annuity is granted.

(d) For death by accident, the following annuities for the dependents: For wife (until married again), or disabled husband, 20 per cent of the annual wages of the deceased; in case of mother or father living, minor children and dependent minors living in deceased's home, 15 per cent for one, 25 per cent for two, 35 per cent for three, and 40 per cent for four or more, and in case neither mother nor father is living, 20 per cent for each child.

At first sight this law would seem to contain extraordinarily liberal provisions for the workmen. In reality, however, its scope is severely limited by a clause that in cases in which the wage of the victim is more than 750 pesos per year this sum, and not his actual wages, will be taken as the basis for calculating the indemnity. It is obvious that this provision adversely affects the compensation of all well-paid laborers. For instance, 500 pesos becomes the maximum disability compensation.

It is generally agreed that the workmen's compensation law should have as its logical corollary compulsory insurance. In Uruguay except in the case of public employees there is no legislation forcing industries existing when the law was passed to carry insurance for their workmen. In practice, however, almost all of the more important industries carry such insurance with the State Insurance Bank (*Banco de Seguros del Estado*). The premiums are not excessive and the industry is relieved of all risk as well as of the task of caring for the victims of accidents. The expenses incurred by the employees

<sup>4</sup> El Libro del Centenario Uruguayo (Montevideo, 1926), p. 339: "Legislación Obrera Uruguaya."

<sup>5</sup> Legislación Obrera del Uruguay, pp. 63 et seq.

are regarded as a legitimate charge on the industry and in most cases are passed on to the public. The insurance bank maintains a regular staff of physicians who render assistance to the employees when accidents arise.

The workmen, like the employers, are, on the whole, satisfied with the operations of the law. Employees pay no direct premiums. They are well attended in case of accidents, and in case of disability, they and their families are not deprived of all resources. The law seems to be well enforced. No license is granted to any new industry coming within the scope of the law until guaranties are given that all workmen will be insured. A lawyer is appointed whose especial duty it is to see that all obligations on the part of the insurance bank are met. The law is sufficiently clear and enforceable to make unnecessary any great amount of litigation. Of the 3,095 industrial accidents noted above as occurring in the first six months of 1925, 2,046 of the victims were granted half-salary compensation, 85 were not insured (but 1 of these was granted compensation by his employer) 9 cases were pending when the report for the period was published, and for 943 no data were available.

*Eight-hour law.*<sup>6</sup>—This important piece of legislation was promulgated on November 17, 1915. The Uruguayans regard this law as one of their most important conquests in the domain of social reform. At first of very wide application, its scope was somewhat restricted by executive decrees, notably those of January 31, 1916, and May 21, 1921. At the present time the following industries and occupations are not subject to its provisions: Agriculture and stock raising, domestic service, chauffeurs of public automobiles, directors and managers of industrial and commercial houses. On the other hand no establishment is too small to escape the provisions of the law; the same is true even of shops in which members of the same family are employed. Eight continuous hours, however, are permitted in certain industries. More than 8 hours are allowed in the case of maritime and port labor, provided that the total does not exceed 48 hours per week. A 15-minute rest after two hours of ironing is obligatory in laundries. The eight-hour law was extended in 1923 to include all employees of hospitals and sanatoriums.

In general the eight-hour law is accepted as the permanent law of the land. No political party seeks its repeal, and there is a movement—thus far of small proportions—to extend it to include domestic help and farm labor. The objection to the law naturally comes from the side of the industrialists, especially the managers of great packing houses. They declare they can not pay a man for 10 hours when he works only 8. Thus they justify a wage of less than a peso and a half per day for seasonal labor. One also hears the complaint that Uruguayan industries are handicapped in the competition with Argentina and Brazil, where the eight-hour law is not operative.

The sponsors of the eight-hour law believed that it would afford opportunity for improving the lot of the laboring classes. In some measure these hopes have been realized. It has been a boon to young men of ambition. The night schools provided by the Government in Montevideo have enabled many employees to fit themselves for more remunerative positions.

<sup>6</sup> Legislación Obrera del Uruguay, pp. 79 et seq.

The law has been reasonably well enforced. While minor infractions are not infrequent, flagrant disobedience is rare, as inspectors are everywhere present. During the year 1926, 64 establishments or individuals were convicted and fined for breaking the law. That the law is effective in preventing exploitation, especially of the newly arrived and ignorant immigrants, is beyond dispute.

*One day's rest in seven.*<sup>7</sup>—Laws making one rest day each week obligatory were passed November 19 and December 10, 1920. These laws were much more inclusive than the eight-hour law, but rural labor was not included even in these. When one recalls that Uruguay is predominately a pastoral and agricultural country, the comparatively limited application of this legislation is apparent. Through a mass of regulations, adjustments to the special exigencies of practically every type of industry are provided. In general the period of rest falls on Sunday and consists of 24 consecutive hours. When this is not practicable another day of the week may be substituted for Sunday. When the industry in question must function continually one day of rest is required after 5 days of work. It is obvious, however, that employers are loath to adopt this latter provision, and in 1924 less than 9 per cent of the laborers fell in this category. In certain cases it is permitted to give two half days off instead of one whole day, or a half day may be given every Sunday and some other day every two weeks. Another privilege is the arrangement between employer and employee whereby the rest days may accumulate for a monthly, quarterly, or semiannual vacation.

The following table indicates the manner in which the law was carried out in 1924:<sup>8</sup>

PROVISIONS FOR WEEKLY REST FOR WORKERS IN COMMERCIAL AND INDUSTRIAL ESTABLISHMENTS IN URUGUAY IN 1924

Department	Number of workers in commercial establishments having—			Number of workers in industrial establishments having—		
	Sunday off	Week day off	One day in six off	Sunday off	Week day off	One day in six off
Montevideo.....	11, 498	5, 012	2, 345	31, 452	10, 089	2, 305
Other departments.....	4, 032	1, 501	1, 012	9, 808	1, 404	442
Total.....	15, 530	6, 513	3, 357	41, 260	11, 493	2, 747

As a result of this law, the six-day week is all but universal in the field of industry, commerce, and domestic service, in the larger communities at least. In small and isolated establishments in the interior of Uruguay difficulties of enforcement occur; but the law is known, the rest day is demanded and is generally accorded. This law is a boon for domestic workers who in most countries in Latin America are subject not only to long hours but also to week-in week-out continuous service. In general, employers have cooperated in carrying out this legislation and no perceptible difference has been made in regard to wages.

<sup>7</sup> Legislación Obrera del Uruguay, pp. 185 et seq.

<sup>8</sup> El Libro del Centenario del Uruguay (Montevideo, 1925), p. 339: "Legislación Obrera Uruguaya."

*Minimum wage for rural laborers.*—The social and labor legislation thus far reviewed has been designed chiefly to improve the lot of the urban laborers and employees; this despite the fact that Uruguay is predominantly a pastoral and rural country. The causes of this anomaly are not far to seek. Thanks to their effective organizations, workmen in the cities can exert an influence in political spheres not enjoyed by the rural laborers, while difficulties of enforcing labor laws in the sparsely settled interior are formidable. Finally, the dominant political party has recruited most of its strength from the inhabitants of Montevideo and the other large towns and as a consequence has been somewhat less concerned with the plight of the laborers on the great estancias.

The first serious attempt to remedy this discrimination was the passage, on February 15, 1923, of the law establishing a minimum wage for rural laborers (*salario mínimo rural*).<sup>9</sup> The minimum wage set is 18 pesos per month, or 72 centésimos per day. The employer is also obliged, at the option of the laborer, either to provide hygienic sleeping quarters and good food or pay an additional 50 centésimos per day or 12 pesos per month. Furthermore, one day's rest in seven is obligatory.<sup>10</sup> The law applies to rural properties with an assessed valuation of more than 20,000 pesos. In the case of properties of more than 60,000 pesos assessed value the minimum wage was increased by an executive decree of April 8, 1924,<sup>11</sup> to 80 centésimos per day, or 20 pesos per month.

An additional executive decree provides for the issuance by the bureau of labor of "booklets of control" (*libretas de contralor*) for the individual laborer. These booklets contain the following data: Name, nationality, age, residence, and civil status of both the laborer and employer; the location and assessed value of the establishment; the date on which the work began, the conditions of contract, amount of wages, provisions for board and room, the day of rest, etc. These reports are kept by the employers and are periodically examined by Government inspectors.

One of the writers had occasion to spend some time on a number of large Uruguayan estancias, and, to the best of his knowledge, the law of minimum wage has proven a distinct success. Rural laborers are cognizant of its terms, the reports are universally kept, inspectors regularly make their rounds, and recalcitrant establishments are forced to live up to the provisions of the law. During 1926, 137 fines were collected for breaking this law. Instances have arisen where employees signed for the legal wage and without protest received less. It is impossible to determine how common is this deceit, but it can not be very general, for the average wage of country laborers has gradually risen to 18 pesos, the legal minimum for the middle-size establishments. Indirectly, therefore, all rural labor has benefitted from the law.

#### National Bureau of Labor

THE enforcement and regulation of labor laws is in the hands of the National Bureau of Labor (*Oficina Nacional del Trabajo*) under the general direction of the Minister of Industries. Only the

<sup>9</sup> Jiménez de Aréchaga: *Leyes, Decretos y Resoluciones Usuales*. Montevideo, 1926, pp. 575 et seq.

<sup>10</sup> This provision applies to all rural properties, irrespective of size.

<sup>11</sup> Jiménez de Aréchaga: *Leyes, Decretos y Resoluciones Usuales*. Montevideo, 1926, p. 578.

most important of the activities of the bureau can be noted here. Inspectors see that the provisions of the eight-hour and minimum-wage laws are carried out, and a lawyer of the bureau sees to it that employees receive their accident compensation. All licenses to new industries must be countersigned by the bureau. Inspectors see that every establishment has its one day of weekly rest for every employee. To assure more adequate enforcement of the existing labor laws in 1923, two subdivisions of the bureau were established in the interior of the country. For the fiscal year 1924-25 the expenses of the bureau amounted to approximately 15,000 pesos.<sup>12</sup>

Other activities of the bureau of labor include the maintenance of a free employment agency;<sup>13</sup> the publication of a monthly bulletin, the *Crónica de la Oficina Nacional del Trabajo*;<sup>14</sup> the investigation of labor conditions both at home and abroad; and the drafting of legislative proposals. The bureau has also attempted to act as mediator in industrial disputes, but with very meager success. This failure is due in large part to the fact that the labor movement, in so far as it is organized, is largely of the radical syndicalist type and reposes no confidence in the bureau of labor, which it considers as an organ of capitalism.

#### Woman and Child Labor

AT THE present time only one measure dealing with the subject of woman and child labor is on the statute books. This is the so-called "chair law" (*ley de la silla*),<sup>15</sup> passed on July 10, 1918. The law makes obligatory in all stores, factories, and other establishments the installation of chairs in sufficient number to permit all woman employees to sit when not engaged in work requiring a standing position. According to the director of the bureau of labor, the law is in force and obeyed. Investigation revealed that in stores, at least, chairs are available. In the industrial establishments, however, adequate provision does not seem to be made for women whose work generally calls for a standing position.

Pending the enactment of further legislation the bureau of labor attempts to throw certain safeguards about women and children in industry. Two woman inspectors devote their whole time to this task. They see that the "chair law" is enforced, intercede in any difficulty between woman workers and their employers, and endeavor to protect women and children from immoral and unsanitary conditions of work.

There is a widespread conviction in Uruguay that the virtual absence of laws looking to the protection of women and children in industry forms a serious gap in the country's social legislation. According to the present Minister of Industries, Doctor Acevedo Alvarez,<sup>16</sup> there are 9,571 women employed in industry. Statistics regarding the number of children gainfully employed are not available, but the total must be impressive if the figures given by Doctor Acevedo for a single establishment are at all typical. In the largest glass factory

<sup>12</sup> República Oriental del Uruguay. Presupuesto General de Gastos para el Ejercicio Económico de 1924-25, Pt. I, p. 282.

<sup>13</sup> In 1925, 1,128 positions were secured through its efforts.

<sup>14</sup> This publication, begun in 1925, was later forced to suspend owing to lack of funds.

<sup>15</sup> Jiménez de Aréchaga: *Leyes, Decretos y Resoluciones Usuales*. Montevideo, 1926, p. 539.

<sup>16</sup> *El Día*, Apr. 1, 1927.

of Montevideo, for instance, some 50 per cent of the 476 employees are less than 18 years of age, while 29 are between 10 and 14 and 36 between 14 and 15. The same authority points out that children employed in industrial establishments are accustomed to labor the regulation eight hours, irrespective of their age.

To meet this admittedly deplorable situation there has been introduced into the Uruguayan Congress, partly through the efforts of the bureau of labor, a comprehensive bill dealing with the labor of women and children. Its outstanding provisions are as follows—

Prohibition of any kind of gainful employment in the case of children under 15 years of age.

A maximum of four hours of work per day for boys and girls under 18 years and of six hours for those under 21.

Absolute prohibition of night work in factories, shops, or stores for women and for boys under 18 years of age.

Children under 18 can not be employed in factories or shops until they have completed the sixth grade in school and have passed a physical examination—given free by the public health department—showing them to be fit for the work. They can not be employed in occupations detrimental to health or morals.

Women are to be granted 12 weeks' vacation on two-thirds pay at time of childbirth.

Factories and shops employing women must have a day nursery attached.<sup>17</sup>

#### Old-age Pensions

ONE topic closely allied to but lying slightly outside the field of labor legislation is that of pensions. For many years public employees of almost every category have been eligible to pensions and retirement allowances. The Government has been extraordinarily liberal in this respect. In the fiscal year 1924–25 nearly 2,000,000 pesos were expended for these purposes, of which amount considerably over half went to civilians and the remainder to members of the military and their families.<sup>18</sup> Our interest, however, lies in a pension of an entirely different type. On February 11, 1919, was passed the law providing for old-age pensions.<sup>19</sup> Every person who, on arriving at the age of 60, is incapable of work and is indigent is entitled to a minimum yearly pension from the State of 96 pesos or its equivalent in direct or indirect aid. This amount is not absolute but is determined in part by the National Insurance Bank, which administers the pensions. On October 11, 1926, the directors of the bank raised the sum to 9 pesos per month for the calendar year 1927.<sup>20</sup> On August 31, 1924, the recipients of this pension numbered to 24,336, entailing an expenditure for the first half of the calendar year 1924 of slightly over 1,000,000 pesos.<sup>21</sup> The revenues for the pension fund are derived from several sources, of which the most important are the contributions of 20 centésimos monthly payable by employers for each of their employees and a graduated surtax on all real estate whose value is not less than 200,000 pesos. Opinion among social

<sup>17</sup> El Día, Mar. 21, 1927, where the chief provisions of the law are analyzed.

<sup>18</sup> República Oriental del Uruguay. Presupuesto General de Gastos para el Ejercicio Económico de 1924–25, Pt. I, pp. 335 et seq.

<sup>19</sup> Jiménez de Aréchaga: Leyes, Decretos y Resoluciones Usuales. Montevideo, 1926, pp. 541 et seq.

<sup>20</sup> El Día, Oct. 12, 1926.

<sup>21</sup> El Libro del Centenario. Montevideo, 1926, p. 337.



workers in Uruguay is practically unanimous regarding the benefits of the old-age pension law, and there is every likelihood that the amounts paid will, as time goes on, show a substantial increase.

### Conclusion

OUR brief survey of the existing labor legislation of Uruguay should warrant the statement that this progressive South American State need not fear comparison in the domain of social welfare with the United States and the more advanced nations of Europe. Not merely has a fairly complete and coherent system of laws been written on the statute books, but the laws are enforced with honesty and intelligence. That serious gaps still exist is admitted by all progressive Uruguayans. The most serious omission, as has already been indicated, is adequate protection for children and women in industry. There has also been a tendency to further the interests of the urban laborer and to neglect his fellow worker in the country. Finally, there is a real need for a comprehensive labor code. Such an instrument would correct the defects of the present legislation, fill the existing gaps, and coordinate the various stipulations scattered through the Civil Code relative to labor contracts. It is encouraging to note that the director of the labor bureau, Doctor Charlone, in collaboration with Sr. César Mayo Gutiérrez, former Minister of Industries, has prepared such a labor code and that it will shortly be submitted to Congress for approval.<sup>22</sup>

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<sup>22</sup> The chief provisions of this draft are given in *El Día* for Apr. 16, 1927.

# INDUSTRIAL RELATIONS AND LABOR CONDITIONS

## English Trades Disputes and Trades-Union Act.

ON JULY 29, 1927, the English act relating to trade-unions and trade disputes, having passed both houses of Parliament, received the royal assent and became law. The original terms of the bill were given in the *Labor Review* for May, 1927 (pp. 122-124), but a number of amendments were made before the act was passed. The *Ministry of Labor Gazette* (London) for August, 1927, gives a summary of the amended provisions of the new law.

A strike is declared illegal if it (1) has any object other than or in addition to the furtherance of a trade dispute within the trade or industry in which the strikers are engaged; and (2) is a strike designed or calculated to coerce the Government either directly or by inflicting hardship upon the community. Illegal lockouts are defined in similar terms, and it is declared illegal to commence or continue, or to apply any sums in furtherance or in support of, any such illegal strike or lockout.

A trade dispute is not to be deemed to be within a trade or industry unless it is a dispute between employers and workmen, or between workmen and workmen, in that trade or industry which is connected with the employment or nonemployment, or the terms of the employment, or with the conditions of labor of persons in that trade or industry. Without prejudice to the generality of the expression "trade or industry," workmen are to be deemed to be within the same trade or industry if their wages or conditions of employment are determined in accordance with the conclusions of the same joint industrial council, conciliation board, or other similar body, or in accordance with agreements made with the same employer or group of employers.

Penalties are provided for any violation of this provision, and the protection formerly extended to trade-unions by the trade disputes act of 1906, and continued under the emergency powers act of 1920, are withdrawn; "but no person is to be deemed to have committed an offense under any regulations made under the emergency powers act, 1920, by reason only of his having ceased work or having refused to continue to work or to accept employment."

The second section provides that no trade-union shall have the right to expel or otherwise to discipline any member who shall refuse to take part or to continue to take part in any illegal strike, nor shall such a member "be placed in any respect either directly or indirectly under any disability or at any disadvantage as compared with other members of the union or society." This is made retrospective so as to include the strike of May, 1926.

The third section forbids picketing, if it includes intimidation, and intimidation is defined in such terms as to make picketing of any kind an impossibility under the law.

The fourth section changes the custom in regard to political contributions from trade-union members. Hitherto, it has been the practice for trade-unions to levy these contributions on all members

unless they give notice in writing that they do not wish to contribute for this purpose. Hereafter such contributions may be levied only on those who give notice in writing that they wish to contribute for this purpose.

The fifth section forbids civil-service employees to affiliate with any trade-union organization including other than public employees. Under this section the unions of civil-service employees are obliged to withdraw from bodies such as the Trade Union Congress.

The sixth section forbids any local authority to make membership or nonmembership in a trade-union a condition of employment. It is also unlawful to make membership or nonmembership in a trade-union a condition of any contract with a local or other public authority.

The seventh section empowers the Attorney General to apply for an injunction to restrain any application of the funds of a trade-union in contravention of the act.

Section 8 defines a "strike," for the purposes of this act, as meaning the cessation of work by a body of persons employed in any trade or industry acting in combination, or a concerted refusal, or a refusal under a common understanding, of any number of persons who are, or have been, so employed, to continue to work or to accept employment. "Lockout" is defined as meaning the closing of a place of employment or the suspension of work, or the refusal by an employer to continue to employ any number of persons employed by him in consequence of a dispute, done with a view to compelling those persons, or to aid another employer in compelling persons employed by him, to accept terms or conditions of or affecting employment. A strike or lockout is not to be deemed to be calculated to coerce the Government unless such coercion ought reasonably to be expected as a consequence thereof.

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### The "Exit" Interview

THE practice of conducting interviews with employees who are leaving the service of a company is discussed in a leaflet entitled "The exit interview," published recently by the Policyholders Service Bureau of the Metropolitan Life Insurance Co., the study being based on the experience of 60 companies.

Practically all of the companies conducting these exit interviews are said to indorse the idea, and the data obtained indicate that such interviews are practical from the standpoint of time, cost, and results. When an employee leaves with a grievance he is a company liability just as much as a dissatisfied customer, and his grievance may be one that affects the morale of the organization. Not only does the exit interview afford a chance to learn the reasons for the employee's seeking work elsewhere, but useful information may also be obtained regarding undesirable working conditions, foremen's attitudes, and so on, and the employee may be given pertinent information about the policies of the company, as well as the opportunities it offers and ways of taking advantage of them. The interview may also show the reaction of certain types of employees to certain jobs, which helps the company in determining the types of individuals suitable for different kinds of work.

Most companies having 5,000 or more employees assign the duty of conducting exit interviews to the regular employment interviewers or to the employment manager or his assistant. In plants employing

between 200 and 5,000 the practice was found to be somewhat different. In five-sixths of these plants the matter was handled by the official corresponding to the employment manager or his chief assistant; in the remaining one-sixth, by the foreman, paymaster, employment clerk, interviewer, or nurse. In the majority of instances the interviewer has authority to take action, but in unusual cases he reports the matter to his superior.

Although it is pointed out that the questions asked in the exit interview may naturally be expected to vary with the individual case, the following were found to be typical of those asked:

1. What's the trouble?
2. What's the matter, John, taking a rest?
3. Is it a matter of money?
4. Didn't you like your job?
5. How did you get along with your foreman?
6. How did you like the other employees in your department?
7. Are you leaving with a clear understanding of the advantages of your present job?
8. Have you any remarks or complaints to make regarding working conditions or treatment while on the job?
9. What incentive does your new place of employment offer?
10. Have you considered the expense of moving, etc.?
11. Are you improving yourself by leaving?
12. Why do you think you will advance more quickly in another organization?
13. Would you like to work for the same foreman again if you came back to us?
14. What can you tell us that will better the service or be a good thing for our employees?
15. How long have you considered leaving?
16. Do you care to transfer to another department?
17. Don't you like this town?
18. Has your address changed since you entered our employ?
19. Have you another job?
20. Can we help you get other work?

The time and cost of these interviews will, of course, also vary in the different cases. It was estimated by one large company that the time taken in interviewing 4,600 discharged, laid off, and quitting employees during the first 11 months of 1926 averaged one hour a day of two men's time, or an average of about six and three-fourths minutes to a case, with an interviewer's salary cost of 10 cents a case. Of these 4,600 employees, 195, or 4.2 per cent, remained in the company's employment as a result of the interview.

### Employment Procedure and Industrial Housing Work of European Street-Railway Companies

**E**MPLOYMENT methods in use by European street-railway companies are more elaborate than those of American companies, according to an article in the *Electric Railway Journal*.<sup>1</sup>

Applicants for employment must present the usual testimonials as to character and pass the standard physical and intelligence tests. But in addition an increasingly large number of companies are also subjecting prospective employees to psychological tests to determine their fitness for the job. Men already in the service may also be

<sup>1</sup> *Electric Railway Journal*, New York, Aug. 27, 1927, pp. 351-355: "Labor conditions on European local transportation systems," by Henry W. Blake.

required to submit to periodical examinations both as to physical and mental fitness. Thus the electric railway company in Paris requires a more or less rigid physical and psychotechnical examination of its motormen every five years up to the age of 45, every three years from 45 to 54 years of age, and every year thereafter. A similar examination may also be required of any employee who has just had an accident or a severe case of illness.

The records of this company disclose a tendency toward an increase of accidents after the motorman or bus driver reaches the age of 55 to 60 years. It is thought that the tests, by revealing perhaps unsuspected physical and other defects that may be corrected, will act as a check upon accidents. The records of the Paris company show that accidents participated in by 100 motormen employed after the system was put into effect were  $16\frac{1}{2}$  per cent fewer than those of 100 men engaged prior to the test system. During 1926 the street-railway and bus accidents declined, although accidents from all other types of vehicles in the city of Paris increased. While this can not altogether be ascribed to the test system the street-railway officials believe that to a large extent the system can be credited with the reduction.

Among the tests given to the motorman or bus driver is that of judging distances. Various objects representing cars and other vehicles moving at different rates of speed are shown on a skeletonized table, and the person taking the test is asked to indicate which of these objects he thinks will collide with any of the others. Some of the men are able to judge so instinctively that they can indicate correctly, almost instantly, while others must wait until the objects have almost come into contact.

Another examination tests the subject's ability to handle a given traffic situation. The man stands on a platform equipped like that of a street car (or if he is to be a bus driver, like that of a bus) while a moving picture is run off showing a crowded street with pedestrians and various types of vehicles crossing before him. The man is expected to make the movements with controller and brake handle that he would if he were really operating the street car or bus.

Similar tests are given by the company operating the street-railway system of Berlin, except that that company also adds a test to determine the man's acuteness of hearing as well as his ability to identify the direction from which the sound comes.

Schools are maintained by many European traction companies in which the mechanism and working of street car or bus are taught. The largest school is that of the London omnibus company which has laid out a series of test roads incorporating all the conditions which the bus driver is likely to meet.

#### Housing Work of European Street-Railway Companies

**N**EARLY all companies have provided housing accommodation for at least some of their employees in or near the car house. "This not only cuts down the time required by them to travel between their homes and place of employment, but is of value to the company as it makes them more easily available in cases of emergency." Generally apartments are provided for several families on the second or third floor of the car house itself.

Some companies have undertaken housing projects on ground adjoining the car barns. The most extensive of these housing projects is that of the Berlin surface-line companies which has erected apartment buildings adjoining eight of its car barns, the buildings containing from 58 to 247 apartments each. The largest of these occupies an entire city block, with the car barn in the middle of one side.

These apartments are rented to employees at rates considerably lower than the current rate and are primarily for employees of the company. If a worker leaves the employ of the firm, although he is not obliged to vacate, he must pay a higher rent. The rents are "based on providing a sinking fund of 1 per cent a year on the cost of the buildings after paying maintenance and interest on the investment."

The apartments are of 1, 2, and 3 rooms, exclusive of kitchen, bathroom, and hall, and nearly every apartment has a balcony.

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### Native Labor Conditions and Population Problems in Nyasaland, Africa

THE International Labor Review for July, 1927, contains an article entitled "Native labor conditions and population problems in Nyasaland," based on data taken from the report on the Nyasaland census of 1926.<sup>1</sup>

The Nyasaland Protectorate has a land area of about 37,890 square miles and a population of 1,290,885 natives, 1,656 Europeans, and 850 Asiatics. Its general location is southeast Africa.

The report states that the exodus of thousands of native laborers from Nyasaland each year in search of work and adventure in Southern Rhodesia, where they often remain as long as 10 years and from which they seldom return before 3 years have elapsed, is regarded by many as a serious social problem in Nyasaland and as the foremost cause tending to reduce the native birth rate below its normal figure, although various native practices and superstitions are mentioned as possible causes. Data obtained in the 1926 census of Nyasaland show that the average birth rate per family is 6.32. This rate, although not a high general birth rate, is thought to be "high enough to cause a rapid increase in the population if the death rates could be reduced, and more especially if the expectation of life in adults could be increased concurrently." Of 13,644 children born to 2,159 women questioned, 12,180 were born alive and 1,464 were stillborn, 2,288 died before walking, and 3,032 died as children, leaving only 6,860, or slightly more than 50 per cent, who lived through childhood. The average number of stillbirths per family was 0.68 and the deaths before walking 1.06. These rates are believed to be unduly high and are "undoubtedly affected by the factors limiting the birth rate, especially those arising from native conservatism and customs." The mortality of children between 2 and 14 years of age, according to the figures cited, averaged 1.40 per family, or one child in every four born. Among the causes given for this high rate are deaths from accidental causes associated more or less with parental neglect,

<sup>1</sup> Africa (Nyasaland Protectorate). Superintendent of Census. Report on the census of 1926. Zomba, 1926.

complete absence of organized medical attention within the reach of the ordinary natives, and insufficient and unsuitable food during the periods of food shortage which occur nearly every year in some part of the Protectorate.

The problem of the emigration from the country of large numbers of laborers, many of whom are married, has been recognized by the Government in passing legislation by which natives "are forbidden by law to leave the Protectorate without a pass, and it is illegal to recruit natives in Nyasaland for service outside. Before a pass is issued the native is bound to satisfy the resident magistrate that he has made provision for the support of his family and for the payment of his hut tax for the current and ensuing year, but Nyasaland has hundreds of miles of open and unguarded border, and thousands of natives leave for Southern Rhodesia each year without passes, paying without demur the fine of 10s. or £1 (\$2.43 or \$4.87, par) for having evaded the laws."

The report places the number of temporary emigrants from Nyasaland who are employed in Southern Rhodesia at about 30,000, with average earnings for each of £1 per month. It is reported that these emigrants bring or send back home at least £100,000 a year, and it is doubtful whether they could at present be employed at home either in producing crops for export or in paid employment in such a way as to provide an addition to the country's net earnings after meeting all expenses and their own maintenance and purchases on the Rhodesian scale of an amount equivalent to the £100,000 actually distributed.

Native labor, in the aggregate, is considered expensive because of its inefficiency. It is said that "the natural life of a native is not conducive to sustained labor and unless some trouble is taken with him he is not capable of regular work for a long period. Under normal conditions, if he works at full pitch, three or four hours is the limit of his effective day's work. Subconsciously he adapts his output of labor so that it will spread over the time he is called upon to work. Overtime, however encouraged or rewarded, means a lower standard of efficiency throughout the whole task, and the overtime period is entirely wasted in many cases. The labor problem is not one of numbers but of the efficiency of the unit, and that efficiency is a medico-social matter which can only be solved by the combined action of the natives themselves, the Government, and the employers of labor."

The natives of Nyasaland are afflicted with various physical ailments, the most serious mentioned being leprosy, consumption, hookworm, and malaria, and very few of them live to be over 70 years of age. Malnutrition, due to unsuitable diet, is said to be an important factor in undermining their health. Hookworm is prevalent to such an extent that it would probably be simplest to say that all natives are infected. The increased prevalence in recent years has been ascribed to the breakdown of tribal discipline. Headmen are responsible for the sanitation of their villages, but they have little power, and the administrative staff is not large enough to insure that the sanitary measures laid down in theory are accomplished in fact. The laziness and inefficiency so often complained of in native laborers are believed to be due partly to hookworm and other complaints and partly to undernourishment.

Under the "employment of natives ordinance" an employer of native laborers must see that they are fed. Natives working in their own district may receive cash in lieu of rations if they desire, as also may other natives between May 1 and October 31, the dry season. The natives "almost invariably exercise the option, as they try and save on their ration money, not realizing the cost to their health and efficiency, though there are indications of a change in the natives' attitude on this point."

The minimum weekly ration scale under the ordinance is slightly less liberal than the legal minimum for short-term prisoners. The scale for long-term prisoners (six months and over) would appear extraordinarily liberal to a laborer, and it may be said with confidence that very few free natives get such a diet throughout the year, although the medical authorities regard it as the irreducible minimum for a manual laborer.

In 1910, although at that time the study of food values had not advanced far, a committee appointed to consider the question of native diets in Southern Rhodesia stated that the minimum allowance of meat (1 pound a week), as then laid down for natives working on the mines, was undoubtedly insufficient.

The superintendent of census points out that if the daily scale recommended by this committee is to be considered a reasonable scale for a working native there remains no vestige of doubt that the Nyasaland native is undernourished and that that is the crux of the local labor problem.

The superintendent recommends that the option of receiving money in lieu of rations be taken away from native employees and a revised ration scale prepared; that an adequate inquiry be instituted into the suitability of the normal native foodstuffs as a whole and in particular localities, and into the possibility of introducing a more suitable form of staple or subsidiary diet; and that in view of the medical opinion that biological proteids are essential to a proper diet, especially of a manual laborer, and in view of the fact that the available meat supplies are inadequate, an inquiry be made into the methods best calculated to increase the existing flocks and herds and to insure a regular and sufficient supply of meat at a reasonable price in those areas where it is most needed. But whatever steps are taken by the Government to foster the health of the native population the superintendent considers that a great responsibility rests upon the employers of labor.

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### Suggested Means of Utilizing Workers' Spare Time in Chile<sup>1</sup>

THE committee appointed recently by the Chilean Ministry of Social Welfare to consider the utilization of workers' spare time has held several meetings and recommends that libraries and museums should be open between 5 and 8 p. m., that gardens and parks should be open between 5 and 10 p. m. without charge for pedestrians, that popular concerts should be given after 5 p. m., and that a national stadium should be built and a national interest in sports developed.

<sup>1</sup> Chile. Boletín del Ministerio de Higiene, Asistencia y Previsión Social, May, 1927, and International Labor Office, Industrial and Labor Information, Geneva, July 18, 1927, p. 61.



# PRODUCTIVITY OF LABOR

## Increased Productivity in Various Industries, 1899 to 1925

PREVIOUS articles in the Labor Review have presented data regarding the increased productivity of labor in various industries, particularly in manufacturing and in railroad transportation. In the Commerce Yearbook for 1926 considerable space is devoted to this subject and estimates given of the increase in output per worker over the period 1899 to 1925 for agriculture and mining, as well as for manufacturing. According to these estimates the output per worker during the period referred to increased 45 per cent in agriculture and 99 per cent in mining, as compared with 48 per cent in manufacturing and in railroad transportation, the average increase for all four groups being 79 per cent. This means that for the major industries of the country the total output of 1925 could be produced with not very far from one-half the number of workers which would have been required under conditions existing in 1899.

The detailed explanations and compilations showing how these results were obtained are presented below, together with an analysis of certain of the factors responsible for the changing efficiency of production. The text and tables are taken from the Commerce Yearbook for 1926,<sup>1</sup> with corrections in the figures for mining in Table 1 as subsequently made by the Department of Commerce.

### Quantitative Increase in Production, 1899 to 1925

CALCULATIONS as to the quantitative increase in the products of agriculture, mining, and manufactures and in the volume of railway traffic from 1899 to 1925 are summarized in Table 1. There are no long-time data as to construction, a field in which the increase during recent years has been exceptionally rapid. Still less possible is it to measure the increase in the services (other than rail transport) which do not incorporate themselves in tangible goods.

The data in the table are in part estimates and there may be a margin of error of several per cent in some of the items. The broad movement is, however, substantially as shown. The percentage of increase given for the output of factories is almost certainly an understatement. The quantitative figures from which the general average is computed are necessarily confined largely to commodities of simple type. Highly elaborate commodities in many instances can not be reported at all in terms of quantity and in many other cases the quantities are not comparable from census to census on account of differences of quality, style, shape, and size. In a progressing country increase in output is naturally most marked in the

<sup>1</sup> United States. Department of Commerce. Bureau of Foreign and Domestic Commerce. Commerce yearbook, 1926. Vol. I.—United States. Washington, 1927, pp. 16-24.

unstandardized articles. Moreover the quantitative increase in articles not themselves comparable quantitatively can not be satisfactorily estimated by adjusting the statistics of their value by price indexes. Price statistics of articles themselves are either not available or not comparable. It is not to be expected that the movement of their prices should be parallel with that of standardized commodities, since a large proportion of them are newly developed articles in the production of which improvements take place with exceptional rapidity, while the exceptional increase in output likewise tends to reduce cost of production.

TABLE 1.—GENERAL INDEXES OF PRODUCTION AND WORKERS, 1925 IN RELATION TO 1899

Industry	Workers (thousands)		Index 1925 (1899=100)			Value of output (millions of dollars)	
	1899	1925	Work-ers	Quanti-tative output	Output per worker	1899	1925
Agriculture.....	10,500	10,500	100	145	145	3,500	12,400
Mining.....	600	1,065	177	348	199	600	4,300
Manufactures.....	5,200	9,772	188	278	148	4,830	26,775
Transportation (railway).....	929	1,846	198	293	148	1,300	5,602
Total or average.....	17,229	23,183	135	<sup>1</sup> 244	<sup>2</sup> 179	10,230	49,077

<sup>1</sup> Computed by giving the above percentages weights according to the relative importance of the several branches in 1899, as determined by value of product.

<sup>2</sup> Obtained by dividing the average index of increase in output (247) by the actual ratio of total workers in 1925 to the total in 1899 (135). The figure exceeds the weighted average of the indexes of output per worker in the several branches, because the increase in number of workers between 1899 and 1925 was confined to branches in which the average value of output per worker is greater than it is in agriculture.

The combined output of agricultural, mineral, and manufactured commodities, and of railroad transportation increased nearly two and one-half times between 1899 and 1925. Population meantime had increased 54 per cent, so that, per capita of the total population, the output of these branches of industry increased nearly 60 per cent.

The increase in production of goods and services not covered by Table 1 has been greater than in these fields themselves. This is indicated by the fact that the number of workers in these four branches increased between 1899 and 1925 by only about 35 per cent as compared with 54 per cent for the total population, reflecting the shift from agriculture, and more recently from manufactures, into commerce, professional and personal service, and construction. It is reasonable to assume that the increase in total output of goods and services of all kinds, per person in the total population, has been as great as the increase in output per worker in the four great branches of agriculture, mining, manufactures, and railroad transportation. This increase has been about 80 per cent (calculated by dividing 244, the relative number for output for 1925 as compared with 1899, by 135, the relative number for workers).<sup>2</sup>

<sup>2</sup>The calculations above summarized deal only with actual quantities, the combined percentages of increase being made up by weighting the percentages of change in the individual commodities according to their relative importance in terms of value. Roughly similar conclusions may be reached by adjusting the reported value of products according to the general wholesale price index.

The increase in production per hour of gainful labor has been even greater than the increase per worker. The hours of labor in every industry have been cut down during the past quarter century. Census statistics regarding hours of labor go back only to 1909. They show a reduction of 11 per cent between that year and 1923 (data for 1925 not yet being available). As compared with 1899 the reduction in hours for factory workers has probably been at least 15 per cent. In the other major branches of industry working hours have been cut down similarly.

#### Changes in Production From Census to Census

**M**ORE detailed analysis of the available data indicates that there was a decided increase in production per person employed in the major branches of industry from the beginning of the century down to the outbreak of the World War, and a still more rapid increase after the close of the war. The movement is to some extent obscured by the fact that the year 1914, in which the quinquennial census of manufactures was taken, was one of considerable depression. Consequently little if any increase appeared in the output per worker in manufacturing industries between 1909 and 1914. Had the census covered the more normal year 1913 the upward trend disclosed by the two preceding censuses would have been found continuing. From 1899 to 1909 the number of wage earners in factories increased about 40 per cent, while the physical volume of production increased at least 60 per cent.

The exceptional demand for certain types of commodities during the war resulted in very great activity of business. Many women were called from the homes, and many men from the farms, to the factories, while the farmers in turn by greater effort were able to increase their production. The process of expanding output, however, carried with it great dislocation of industry—the employment of many workers on unfamiliar tasks, the turning of much machinery to purposes for which it was but little adapted, and the hasty erection of plants. Consequently efficiency of industry fell below normal. Production per worker in factories was no greater in 1919 than in the depressed year 1914. A very similar experience befell the railways.

#### The Increase in Production Since 1919

**T**HE increase in production of the major industries since 1919 has been rapid and at the same time there has been a diminution in the number of workers in these industries, so that the increase in output per worker has been decidedly greater. The changes are shown in Table 2. In this table also some of the figures are approximate only, but it is probable that they understate rather than overstate the increase in production.

TABLE 2.—GENERAL INDEXES OF PRODUCTION AND WORKERS, 1925 IN RELATION TO 1919

Industry	Workers (thousands) <sup>1</sup>		Index 1925 (1919=100)			Value of output (millions of dollars)	
	1919	1925	Work-ers	Quantitative output	Output per worker	1919	1925
Agriculture.....	11,300	10,500	93	108	118	15,700	12,400
Mining.....	1,065	1,065	100	133	133	3,175	4,300
Manufactures.....	10,689	9,772	91½	128½	140	24,750	26,775
Transportation (railway) <sup>2</sup> .....	1,915	1,744	91	104½	115	4,721	5,602
Total or average.....	24,969	23,081	93	120	129	48,346	49,077

<sup>1</sup> Estimates.<sup>2</sup> Data based on Class I roads.

Between 1919 and 1925 the output of the agricultural industry increased approximately 8 per cent, of mining 33 per cent, of manufactures 28½ per cent, and of transportation 4½ per cent. In each of these branches, except perhaps mining, as to which there are no complete statistics, there were fewer persons employed in 1925 than in 1919, and the increase in output per worker ranges from about 18 per cent for agriculture to 40 per cent for manufactures.

For the four branches combined the increase in output (ascertained by weighting the percentages of increase in the individual branches by the relative value of their products in 1919) was approximately one-fifth, while there was a decrease of about 7 per cent in the number of workers. The output per worker, therefore, was nearly 30 per cent greater in 1925 than in 1919.

As already stated, the production of 1919 was relatively inefficient so that the increase in output per worker in recent years is greater than would have been the case had normal conditions prevailed throughout the world. That this is far from being the only explanation of the increase, however, is shown apart from other evidences, by comparison of the normal and prosperous year 1923 with the normal and prosperous year 1925. The number of wage earners in American factories declined by 4.4 per cent but the quantity of output increased by 6 or 7 per cent, the output per worker being at least 11 per cent greater in 1925 than in 1923. Similarly the railways (Class I carriers) carried practically the same volume of traffic in 1925 as in 1923 (slightly greater freight and somewhat less passenger traffic) but were able to do so with 7 per cent fewer employees.

### Major Factors in Advancing Industrial Efficiency

THE fact that national output per capita has long been greater in the United States than in most other countries is in some measure owing to the abundance of agricultural land in proportion to the population, and the abundance and variety of mineral resources. During the earlier history of the country its progress was in considerable part owing to the opening up of new resources. The increase in output during recent decades, however, can not be attributed to this cause. There have been some new discoveries of minerals, notably of petroleum, but these contributions have been offset by the partial using up of other resources and by the necessity, with the

growth of population, of extending cultivation to somewhat inferior lands. The principal factors in the recent increase in productivity are, therefore, human as distinguished from natural factors.

### Education and Research

AMONG these factors is the advance in education and scientific research. (Table 3.) Taking account both of the proportion of the children in school and of the average duration of attendance, the amount of elementary and secondary instruction given in 1924 was 154 per cent greater than in 1870, and 85 per cent greater than in 1890. In 1890 about 5½ per cent of the children between the ages of 14 and 17 years were in high schools and academies; in 1924 over 33 per cent. Of persons 18 to 21 years of age about 1½ per cent were in colleges and universities in 1890, and more than 7½ per cent in 1924. Meantime instruction has become much better in quality and especially more practical and more conducive to thinking power and to productive capacity. The rapidly expanding scientific research in colleges and universities, in endowed research institutions and in laboratories of great industrial concerns, has also proved of great practical importance in the progress of industry.

TABLE 3.—PROGRESS OF EDUCATION IN THE UNITED STATES

Item	1870	1890	1910	1920	1924
Pupils in elementary and secondary schools, per cent of total population 5 to 17 years of age	57.0	68.6	73.5	77.8	82.8
Average days' attendance in the year	78	86	113	121	132
Expenditure for elementary and secondary schools per person 5 to 17 years of age	\$5	\$7	\$24	\$37	\$62
Average annual salary of teachers in elementary and secondary schools	\$189	\$252	\$485	\$871	\$1,227
Pupils in high schools and academies, thousands		298	1,032	2,041	2,754
Per cent of total population 14 to 17 years of age		5.6	14.3	26.4	33.2
Pupils in collegiate, postgraduate, and professional courses, thousands		78	204	414	607
Per cent of total population 18 to 21 years of age		1.5	2.8	5.6	7.7
Receipts of institutions of higher learning, exclusive of additions to endowment, millions of dollars			78	189	341
Percentage of illiterates in population 10 years of age and over:					
All classes	20.0	13.3	7.7	6.0	-----
All whites	11.5	7.7	5.0	4.0	-----
Native whites		6.2	3.0	2.0	-----
Negro	81.4	57.1	30.4	22.9	-----

### Capital

ANOTHER factor in the progress of industry is the large and increasing use of capital. The reports of corporations for taxation purposes furnish significant data as to capital used in production; the great bulk of industry is conducted by corporations. The combined assets of corporations in the fields of mining, manufacturing, transportation, and public utilities in 1924 were more than \$90,000,000,000, of which about \$28,000,000,000 were in the form of current assets—inventory, accounts receivable, and cash—and the remainder in fixed assets—plant and equipment. In the mining industry the assets of corporations were equal to about \$10,500 per wage earner employed (including the wage earners of noncorporate concerns). The corresponding proportion for manufacturing industries was about \$5,250, and for the steam railroads more than \$8,000.

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The amount of capital used is rapidly increasing. The increase in the savings deposits in banks, the increase in assets of building and loan associations, the premiums paid to life insurance companies less the operating expenses, and the additions to surpluses of corporations, together total about \$6,000,000,000 annually. There are, of course, many other forms of savings, apart from these. It has been roughly estimated that the total annual savings amount to about \$10,000,000,000. These savings largely go directly to aid production. They include also, however, sums invested, as in homes and public improvements, for the purpose of producing not salable commodities or services but a continuous use or enjoyment.

### Machinery and Power

THE use of capital in industry is reflected conspicuously in the machine equipment of farms, factories, mines, and other productive enterprises. The relative abundance of capital makes it possible with advantage to discard promptly the less efficient machine in favor of the more efficient.

A rough measure of the use of machinery is furnished by the statistics of the capacity of prime movers. In manufacturing industries each wage earner on the average is aided by prime movers of a capacity of 4.3 horsepower; in 1899 the average was 2.1. The power employed on American railways has similarly increased. The average capacity of the individual locomotive has doubled since 1900 and it requires no more men to operate a locomotive than before.

A still broader view of the use of power is gained from the data of the production of mineral fuels and of water power. The output of these fuels and water power, reduced to the terms of equivalent of coal, has averaged during recent years about  $7\frac{1}{2}$  tons per capita of the entire population, a figure four or five times greater than half a century ago, and about twice as great as in 1900. Moreover the heat and energy derived have increased much more still by reason of the growing efficiency with which fuels are utilized.

### Mass Production

EXCEPT in agriculture, where the so-called one-man farm has thus far proved more efficient, American industry is characterized by large-scale production.

In 1923 there were more than 10,000 manufacturing establishments in this country with an output each exceeding \$1,000,000, and these together contributed two-thirds of the value of all factory products. There were nearly 1,000 factories each employing more than 1,000 wage earners and these together reported 2,100,000 employees out of an aggregate of 8,800,000 in all plants. Considerably more than half of the total number of factory workers were in plants employing 250 or more wage earners each. The relative importance of large plants has increased materially; in 1909 (the first year for which comparable statistics are available) 43 per cent of all factory wage earners were in plants with more than 250 employees.

TABLE 4.—RELATION OF POWER EQUIPMENT TO NUMBER OF WORKERS

[Source: Bureau of the Census, Department of Commerce, and Interstate Commerce Commission]

Industry group and year	Wage earners	Horsepower of prime movers	Horsepower per wage earner	
			Trac-tive power	Car capac-ity
<b>Manufacturing industries:</b>				
1899	4,713,000	10,000,000	2.1	
1909	6,615,000	18,675,000	2.8	
1914	7,036,000	22,437,000	3.2	
1919	9,096,000	29,504,000	3.2	
1923	8,778,000	33,094,000	3.8	
1925	8,384,000	35,735,000	4.3	
<b>Mining and quarrying:</b>				
1902	581,728	2,867,562	4.9	
1909	1,065,283	4,608,253	4.3	
1919	1,088,189	6,723,786	6.2	

Industry group and year	Number of em-ployees	Aggregate trac-tive power of loco-motives	Total ca-pacity of freight cars	Per employee	
				Trac-tive power	Car capac-ity
<b>Railways:</b>					
<i>Fiscal year—</i>					
1899	929,000	1,660,000	34,980,000	710	37.7
1909	1,503,000	1,549,000	73,665,000	1,030	49.0
1914	1,710,000	1,932,000	90,977,000	1,130	53.2
<i>Calendar year—</i>					
<i>Class I—</i>					
1919	2,193,500	2,313,000	99,001,000	1,200	51.2
1923	2,187,900	2,544,000	101,318,000	1,350	53.9
1925	2,176,900	2,587,000	105,570,000	1,460	59.7

<sup>1</sup> Number of locomotives, 36,703; estimated average capacity, 18,000 pounds. Number of cars, 1,295,510; estimated average capacity, 27 tons.

<sup>2</sup> Including Class I switching and terminal companies; 1919 estimated as to such companies.

Large scale production is particularly conducive to low costs where processes are repetitive—that is, where large quantities of the same product are turned out. The big plant can in such cases introduce highly specialized machinery adapted to the various particular tasks, whereas the smaller plant must often use machines intended for more general purposes, turning them first to one and then to another operation. Repetition also permits close specialization of labor.

The great magnitude of the domestic market has much to do with large-scale operation of plants. The United States has a population much greater than that of any other country of high standard of living and the per capita income of its people averages much higher than in most other countries. For many manufactured articles the American market is greater than that of all other countries combined. In Europe the many national boundaries place barriers on the distribution of products, and tend to limit the size of the plants producing any given article.

#### Elimination of Waste

MUCH of the progress of industry, especially during recent years, has been owing to the fact that problems of production and distribution have been systematically studied. The result has been to render discovery, invention, and improvement largely an organized and continuous process rather than a haphazard one. This movement has come to be commonly designated as "elimination of waste"

or "simplified practice." These systematic movements are conducted by individual corporations and other concerns, by associations of producers, dealers and consumers, by special research organizations, by universities, and by the Federal and State Governments. There is a growing practice of cooperation among all interests toward this end.

One of the several important directions taken in recent years has been concerted agreement for the simplification of products. In scores of branches of industry producers, dealers, and consumers have agreed to the cutting out of unnecessary sizes, shapes, and varieties of products, concentrating production on a limited number of standard forms, with the consequent marked reduction in average unit cost.



## MINIMUM WAGE

### Minimum Wage Decisions, Massachusetts

THE minimum wage division of the Massachusetts State Department of Labor and Industries has recently issued a report of its activities for the year ended November 30, 1926. During this period decrees establishing minimum rates of wages in two occupations were entered, one affecting employees in candy factories and the other employees in jewelry and related lines.

The rate of \$13 per week fixed for experienced workers in the candy occupation supersedes the \$12.50 rate entered July 19, 1919, and became effective March 1, 1926. The rate for beginners and learners was fixed at \$9 per week. A rate of \$14.40 per week was decreed for female employees of ordinary ability in the manufacture of jewelry and related lines, with a special minimum rate for beginners of \$12 a week. The decree became effective January 1, 1927.

In the course of the regular inspection work for the year wage records were secured for 36,454 women in 1,361 establishments under 15 decrees. Of this number 34,479, or 94.6 per cent, represented full compliance. In 1,030 establishments with 22,753 employees full compliance was shown at the time of the first inspection. There were 1,968 cases of noncompliance found in 328 establishments, the majority of which were in firms that had been previously advertised because of their noncompliance.

Wage records were secured for 4,542 women in 115 candy factories, and for 4,450 women in 80 establishments manufacturing stationery goods and envelopes. There were 90 cases in 29 candy factories requiring adjustment and 221 cases in 39 stationery-goods establishments; the greater number of these were settled before the close of the year.

Noncompliances under the candy decree represent 0.2 per cent of the employees for whom records were secured and 1.7 per cent in the case of the establishments. Under the stationery-goods and envelopes decree the noncompliance cases represent 0.4 per cent with respect to the employees and 1.3 per cent with respect to establishments.

The result of a study of the wages of women employed in the manufacture of electrical machinery and supplies in 16 cities made in 1925 discloses that out of 2,443 cases in 34 firms nearly one-half (47.1 per cent) were earning under \$15 a week, and nearly one-third (31.8 per cent) under \$13 a week. Of the 761 women paid on a time basis two-thirds (65.2 per cent) had rates for full-time employment below \$15 a week, and more than one-third (36.8 per cent) had rates below \$13 a week.

## Minimum Wage and Native Labor in South Africa

ACCORDING to Industrial and Labor Information, of the International Labor Office, for July 11, 1927, the Government of South Africa was recently called upon to defend itself for having established a minimum wage of a shilling an hour for some forms of unskilled labor. Unskilled labor in South Africa is usually performed by natives or colored workers, and the charge was made that the rate thus fixed was too high, leading to demands from other natives and rousing unrest among those not receiving it.

In the South African House of Assembly on May 19, 1927, a member of the opposition drew attention to the inclusion in Government contracts by the Minister of Posts and Telegraphs of a clause stipulating for the payment of a minimum rate of wage for unskilled labor of 8s. a day for a day of eight hours.

He argued that such a minimum wage policy could not be limited to Government contracts, and that it had in fact caused excessive wage demands among native agricultural workers. He also criticized the minister for attempting to justify his action by informing the natives that they could not live decently on less than 8s. a day, and by pointing out that the natives were organizing.

In reply the minister expressed the opinion that members were not serious in declaring that a minimum wage of 8s. a day had had a pernicious effect on natives in the countryside. Moreover, in regard to the Government contracts, every case was treated on its merits, and in certain parts of the country the shilling-an-hour clause had been modified to fit the circumstances. He had, however, definitely laid down the policy that payment should be for work and not for color. If the contractors preferred to pay 8s. a day to efficient black workers rather than take on whites, he considered the position satisfactory, as they would be paying for the work performed.

# INDUSTRIAL ACCIDENTS

## Accident Experience in the Iron and Steel Industry to the End of 1926

FOR some years past accident experience for the iron and steel industry has been presented by the Bureau of Labor Statistics for two groups of plants. One group is selected as embodying the best practices and the most pronounced success in the effort at accident prevention. The other group embraces all plants for which it was possible to secure information, including those plants mentioned above.

Table 1 presents the results in the selected group to the end of 1926:

TABLE 1.—ACCIDENT FREQUENCY RATES (PER 1,000,000 HOURS' EXPOSURE) FOR A SELECTED GROUP OF IRON AND STEEL PLANTS, 1913 TO 1926, BY PRODUCTS AND BY YEARS

Year	Fabricated products	Sheets	Wire and products	Tubes	Miscellaneous steel		Total
					Group A	Group B	
1913	100.3	61.6	59.3	27.2	70.9	41.3	60.3
1914	59.0	47.2	46.2	12.5	50.7	27.6	43.5
1915	53.5	37.3	52.4	10.8	51.9	23.0	41.5
1916	52.1	34.0	48.2	12.4	67.6	28.2	44.4
1917	51.3	33.9	32.5	10.2	51.3	20.5	34.5
1918	38.2	25.9	18.8	9.1	42.0	31.4	28.8
1919	32.8	25.8	12.5	9.1	39.7	23.0	26.1
1920	35.3	22.7	12.0	8.9	35.3	18.6	22.9
1921	28.4	17.5	7.5	6.1	15.8	12.1	13.2
1922	33.8	16.9	7.9	7.1	14.5	10.8	13.0
1923	32.6	17.2	7.9	7.0	13.9	9.8	12.7
1924	33.4	10.3	6.2	5.1	11.8	7.9	10.2
1925	27.4	11.4	4.2	4.0	9.8	3.7	8.2
1926	24.3	9.4	3.9	3.6	6.6	3.8	6.8

The same data contained in Table 1 are presented in Table 2 from another point of view. It would be quite possible that in a generally favorable situation there should be concealed a very unsatisfactory situation in respect of certain departments or causes. Table 2 shows that the influences tending to accident reduction have been remarkably pervasive.

There is somewhat prevalent an idea that machinery has come to be almost without significance in the accident problem. Neither these figures nor any others of similar character justify this conclusion. In common with other causes machines are now operated much more safely than in the past but relatively to other causes injuries due to them are still of serious moment.

TABLE 2.—ACCIDENT FREQUENCY RATES (PER 1,000,000 HOURS' EXPOSURE) FOR A SELECTED GROUP OF IRON AND STEEL PLANTS, 1913 TO 1926, BY YEARS AND CAUSES

Accident cause	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	Total
<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>2.0</b>	<b>1.6</b>	<b>1.5</b>	<b>3.4</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	.7	1.6
Caught in.....	2.5	1.8	1.7	1.7	1.2	1.1	.9	1.0	.6	.8	.7	.6	.5	.5	1.1
Breakage.....	.1	.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	.2	.5
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	.9	1.8
Overhead.....	2.8	1.9	2.0	2.5	2.2	1.9	1.6	1.5	.8	1.0	1.1	.9	.7	.7	1.5
Locomotive.....	.3	.2	.2	.2	.2	.2	.2	.2	.2	.1	.1	.1	.1	.1	.2
Other hoisting apparatus.....	.4	.2	.1	.1	.1	.1	.1	.2	.1	.1	.1	.1	.1	.1	.1
<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</b>	<b>.5</b>	<b>.4</b>	<b>.6</b>	<b>.5</b>	<b>.3</b>	<b>.3</b>	<b>1.0</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>.5</b>	<b>2.4</b>
Electricity.....	.5	.4	.2	.4	.3	.3	.2	.3	.1	.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	.4	1.6
Hot water, etc.....	1.3	1.1	1.2	1.1	.8	.6	.6	.4	.2	.3	.2	.2	.1	.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>1.0</b>	<b>2.4</b>
From ladders.....	.3	.1	.1	.1	.1	.2	.1	.1	.1	.1	.1	.1	(1)	.1	.1
From scaffolds.....	.2	.2	.2	.2	.3	.2	.2	.2	.1	.1	.1	.1	.1	.1	.2
Into openings.....	.2	.1	.1	.3	.2	.1	.1	.1	.1	(1)	(1)	(1)	(1)	(1)	.1
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	.8	2.0
<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>---</b>	<b>.1</b>	<b>.1</b>	<b>.1</b>	<b>.1</b>	<b>.1</b>	<b>.1</b>	<b>.3</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>6.1</b>	<b>5.8</b>	<b>5.5</b>	<b>3.9</b>	<b>3.4</b>	<b>2.9</b>	<b>11.4</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	1.2	4.7
Caught between.....	3.4	2.6	2.6	3.1	2.1	1.7	1.7	1.3	.7	.7	.7	.5	.4	.3	1.4
Trucks.....	1.9	1.0	1.4	1.4	1.2	.9	.7	.6	.5	.4	.4	.2	.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	.3	1.3
Flying from tools.....	.2	.2	.1	.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	.4	1.6
Tools.....	3.7	2.6	2.6	2.9	2.0	1.7	1.4	1.4	.8	.7	.8	.6	.5	.5	1.5
<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</b>	<b>3.9</b>
Asphyxiating gas.....	.3	.2	.1	.1	.1	.1	.2	.1	.5	(1)	.1	(1)	(1)	(1)	.1
Flying, not striking eye.....	.8	.6	.6	.5	.4	.5	.3	.3	.2	.1	.3	.2	.1	.1	.3
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	1.1
Heat.....	.9	.8	.4	.4	.1	.2	.1	.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	2.2
<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>6.8</b>	<b>24.8</b>

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

Attention will now be directed to the general statistics gathered from the industry at large. Table 3 is computed by overlapping five-year intervals and gives a very good idea of the progress of the departments which it has been possible to treat in that way. Although the exposure of individual years is of considerable volume, it is not large enough to indicate the trend as clearly as does the method employed in Table 3.

TABLE 3.—ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, BY DEPARTMENTS AND 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
1907-1911	69.2	76.1	101.5	84.2	60.1	61.0	69.4	44.1
1908-1912	65.1	67.7	79.5	79.5	61.5	57.0	60.8	47.9
1909-1913	62.1	62.4	92.3	78.6	65.1	51.7	55.9	49.1
1910-1914	59.2	62.3	89.8	75.0	63.6	46.1	49.9	51.1
1911-1915	53.3	50.3	65.0	67.6	59.3	39.4	44.7	48.1
1912-1916	51.3	47.8	76.1	64.8	57.8	37.3	41.5	47.4
1913-1917	48.2	41.4	68.3	58.4	60.4	32.1	36.6	41.3
1914-1918	43.6	40.5	60.7	53.5	57.0	31.1	39.8	35.8
1915-1919	41.5	39.0	57.7	50.5	61.0	32.4	39.2	32.7
1916-1920	41.1	38.0	53.1	50.2	61.0	31.4	38.4	33.7
1917-1921	39.5	36.3	47.0	44.8	63.1	29.9	37.6	33.4
1918-1922	36.5	34.0	39.9	41.3	60.4	27.6	36.7	35.2
1919-1923	34.9	32.9	30.5	33.0	61.7	23.8	31.4	37.2
1920-1924	33.6	30.7	24.9	32.9	62.7	21.2	29.4	35.1
1921-1925	31.3	29.0	17.0	29.9	63.1	18.1	26.8	33.2
1922-1926	29.9	28.7	16.7	28.3	62.8	16.6	25.6	30.6

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

1907-1911	5.0	10.6	7.6	7.5	2.7	4.4	5.1	3.1
1908-1912	4.3	8.8	7.4	6.6	3.1	4.2	4.1	2.8
1909-1913	4.4	8.3	6.7	6.8	3.5	4.0	3.8	3.0
1910-1914	4.1	7.0	6.4	6.6	3.6	3.6	3.9	2.6
1911-1915	3.6	6.2	5.3	5.8	3.3	3.4	3.1	2.2
1912-1916	3.7	5.8	6.1	5.5	3.1	3.5	2.8	2.3
1913-1917	3.7	5.6	7.1	5.1	3.3	3.6	2.6	2.1
1914-1918	3.5	5.4	7.3	5.8	3.2	3.4	2.6	1.8
1915-1919	3.6	5.8	6.9	6.5	3.4	3.9	2.5	1.5
1916-1920	3.5	5.7	6.3	6.3	3.2	3.5	2.6	1.8
1917-1921	3.4	5.7	5.4	5.8	3.2	3.3	2.5	1.7
1918-1922	3.1	5.5	4.2	5.3	2.7	2.9	2.5	1.8
1919-1923	3.0	5.0	3.2	4.2	2.7	2.4	2.4	1.9
1920-1924	2.8	4.5	2.6	4.2	2.8	2.3	2.4	2.1
1921-1925	2.7	4.6	3.2	4.0	3.1	2.6	2.6	1.9
1922-1926	2.8	4.7	4.0	4.6	3.2	2.6	2.6	1.8

With a single exception, Table 3 indicates a very regular decline in both frequency and severity. The decline in severity is naturally more irregular than that in frequency because of the intrusion from time to time of death and permanent disabilities with their heavier weighting. For example, in the combined departments frequency declines with perfect regularity from period to period, while in severity there are a number of instances of the later period having the same or a higher rate.

The single exception to this regular decline is found in the foundries. There is some slight variation, but it is quite as likely to be in one direction as the other, and the trend, if there is one, is upward rather than downward. Attention has been called to this situation from time to time in these annual reviews, and it is distinctly disappointing that, taken as a whole, foundries are so much out of step with the other departments of the industry.

#### Accident Experience of the Industry and Its Departments

TABLE 4 (see p. 43) presents the year-to-year experience and that of three consecutive five-year periods beginning with 1910. The experience of these five-year periods, on account of larger volume, is

more authoritative than that of the individual years. For this reason these periods will be used as the basis of comment, being designated as period 1, period 2, and period 3.

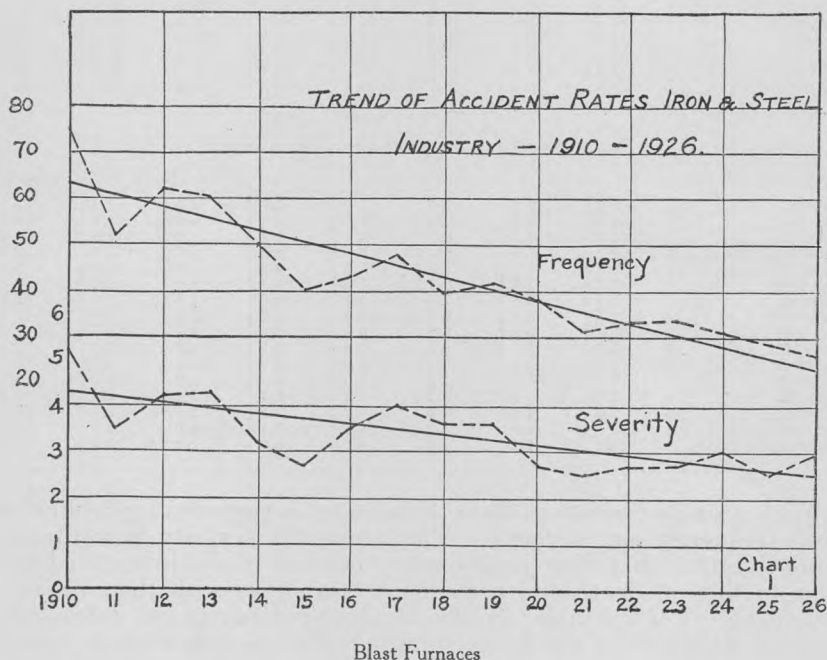
#### The Industry

Frequency rates: Period 1, 59.2; period 2, 41.6; period 3, 33.6.

Severity rates: Period 1, 4.1; period 2, 3.6; period 3, 2.8.

In 1925 both frequency and severity declined, while in 1926 frequency further declined and severity slightly increased.

Chart 1 presents the straight-line trends derived by applying the method of least squares to the details of the iron and steel industry accident rates as shown in Table 4 (p. 43).



Frequency rates: Period 1, 62.3; period 2, 39.0; period 3, 30.7.

Severity rates: Period 1, 7.0; period 2, 6.1; period 3, 4.5.

In 1925 both rates declined, and in 1926 both rates rose slightly.

Blast furnaces are generally recognized as one of the particularly hazardous departments of the industry. If an intrinsically dangerous department can bring about such improvement as that shown by these rates it should be possible for any department to improve its record.

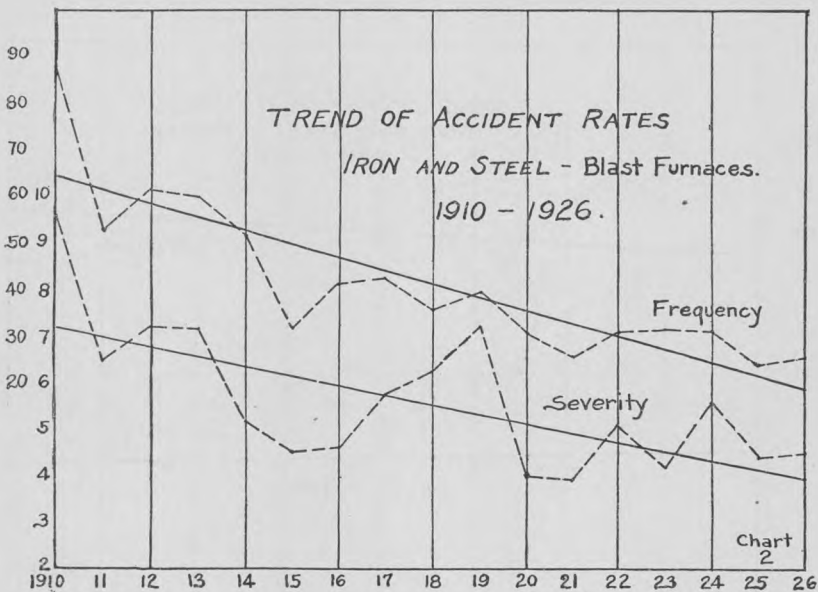
Chart 2 presents the straight-line trends derived by applying the method of least squares to the details of blast furnace accident rates as shown in Table 4.

Bessemer Converters

Frequency rates: Period 1, 89.8; period 2, 57.7; period 3, 24.9.  
 Severity rates: Period 1, 6.4; period 2, 6.9; period 3, 2.6.

In 1925 frequency declined very markedly and severity rose, and in 1926 both rates rose.

There has been a considerable and fairly steady decline in frequency, but severity has shown great irregularity. This is due in part to a too-small exposure and in part to the nature of the operation, involving hazard against which it is difficult to guard.



Open-Hearth Furnaces

Frequency rates: Period 1, 75.0; period 2, 50.5; period 3, 32.9.  
 Severity rates: Period 1, 6.6; period 2, 6.5; period 3, 4.2.

In 1925 both rates declined, and in 1926 a further decline in frequency was registered, while severity rather sharply increased.

Foundries

Frequency rates: Period 1, 63.6; period 2, 61.0; period 3, 62.7.  
 Severity rates: Period 1, 3.6; period 2, 3.4; period 3, 2.8.

In 1925 both rates rose, and in 1926 both somewhat declined.

The figures quoted above show a practically unchanged frequency; some improvement in severity. If Table 4 be consulted, it will appear that no substantial improvement has occurred in the years covered by the study. This is particularly disappointing in view of the fact that some of the foundry organizations have made a fine record.

Chart 3 presents the straight-line trends derived by applying the method of least squares to the details of foundry accident rates, as shown in Table 4.

#### Heavy-Rolling Mills

Frequency rates: Period 1, 46.1; period 2, 32.4; period 3, 21.2.

Severity rates: Period 1, 3.6; period 2, 3.9; period 3, 2.3.

In 1925 both rates declined, and there was a further decline of both rates in 1926. This decline in rates is undoubtedly due in considerable measure to modifications in the mills, which have tended to render operation safer.

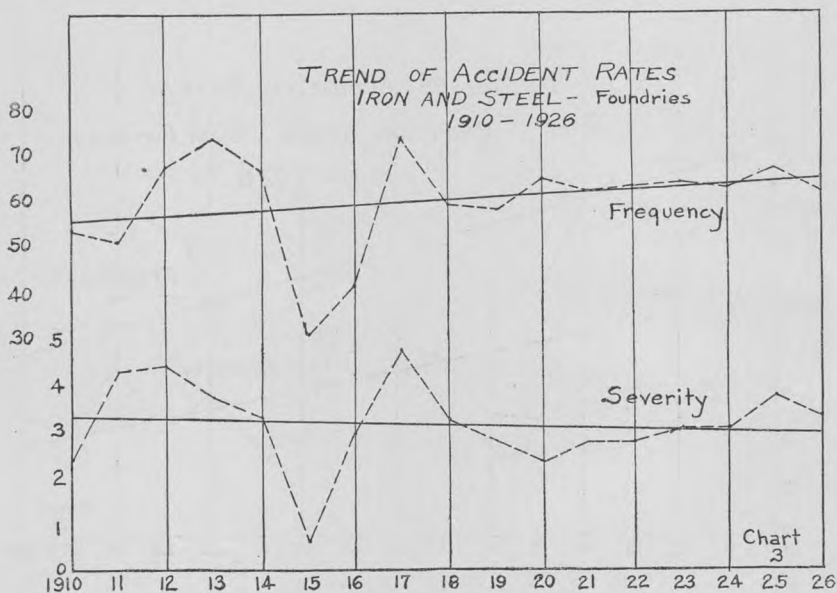


Chart 4 presents the straight-line trends derived by applying the method of least squares to the details of heavy-rolling mill accident rates, as shown in Table 4.

#### Plate Mills

Frequency rates: Period 1, 49.9; period 2, 39.2; period 3, 29.4.

Severity rates: Period 1, 3.9; period 2, 2.5; period 3, 2.4.

In 1925 frequency declined and severity rose, and in 1926 both rates declined.

#### Sheet Mills

Frequency rates: Period 1, 51.1; period 2, 32.7; period 3, 35.1.

Severity rates: Period 1, 2.6; period 2, 1.5; period 3, 2.1.

In 1925 frequency rose and severity remained unchanged. A decline of both rates was again registered in 1926.



Tube Mills

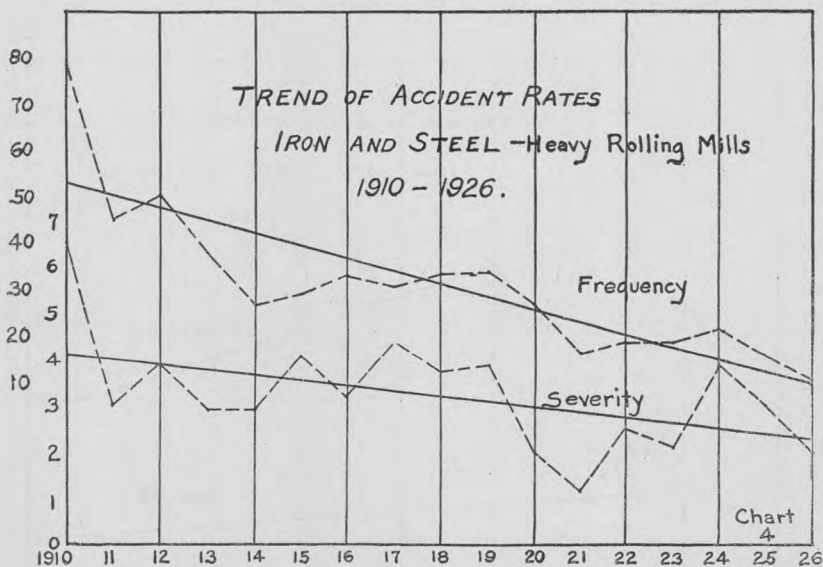
Frequency rates: Period 1, 40.5; period 2, 22.4; period 3, 22.7.  
 Severity rates: Period 1, 2.2; period 2, 1.8; period 3, 1.9.

In both rates there was a decline in 1925, and in 1926 frequency rose and severity declined.

Fabricating Shops

Frequency rates: Period 1, 79.9; period 2, 55.2; period 3, 52.7.  
 Severity rates: Period 1, 3.4; period 2, 2.6; period 3, 2.4.

In 1925 both rates declined; in 1926 frequency declined but severity increased.



Wire Drawing

Frequency rates: Period 1, 65.7; period 2, 45.8; period 3, 24.0.  
 Severity rates: Period 1, 3.2; period 2, 2.6; period 3, 2.3.

In 1925 frequency rose and severity declined; in 1926 both rates declined.

Wire drawing is peculiar in that the severity of accidents causing permanent disability is in excess of that due to death. This is related to the danger of being tangled in the wire as it passes toward the block. Such an entanglement may result in the loss of a hand or other serious injury.

Electrical Department

Frequency rates: Period 1, 47.1; period 2, 40.3; period 3, 20.5.  
 Severity rates: Period 1, 6.3; period 2, 7.2; period 3, 3.0.

The year 1925 registers both rates as declining, and in 1926 the decline continued.

The rather high severity of this department is related to the dangers incident to handling circuits of high voltage.

## Mechanical Department

Frequency rates: Period 1, 62.7; period 2, 41.3; period 3, 23.7.

Severity rates: Period 1, 4.0; period 2, 3.5; period 3, 2.8.

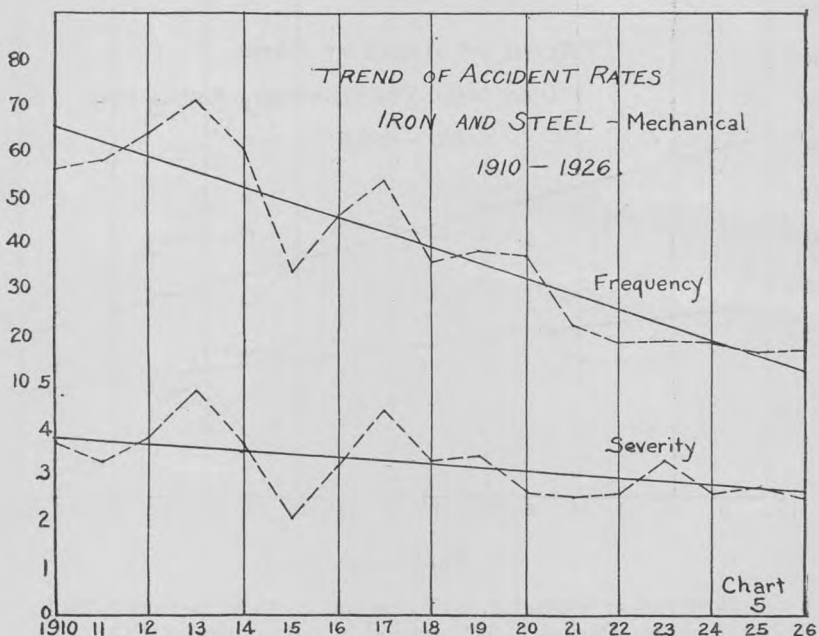
In 1925 frequency declined and severity rose slightly. In 1926 frequency rose and severity declined. These movements are shown in Chart 5.

## Yards

Frequency rates: Period 1, 50.8; period 2, 37.5; period 3, 26.4.

Severity rates: Period 1, 6.0; period 2, 6.1; period 3, 4.1.

In 1925 both frequency and severity increased, while in 1926 both declined. High severity rates in this department have been noticeable throughout the progress of this study.



## Erection of Structural Steel.

Frequency rates: Period 1, 121.7; period 2, 107.2; period 3, 97.5.

Severity rates: Period 1, 31.4; period 2, 22.3; period 3, 19.9.

In 1925 both rates declined, but in 1926 both rates rose, severity reaching a point higher than in any previous year. In only one other year (1917) has the number of deaths been as great as in 1926. In that year the exposure was greater, with the result that the rate was markedly lower. The rates are so constantly high as to indicate, in spite of the small exposure, a very serious degree of hazard.

The above are the more important departments in the industry. As a rule they show a condition of progress, not so rapid as in the earlier years but substantial and encouraging.

TABLE 4.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, 1907 TO 1926, BY DEPARTMENTS AND BY YEARS AND 5-YEAR PERIODS

*The industry*

Year or period	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 disa-bility	Tempo-rary disa-bility	Total	Death	Perma-nent disa-bility	Tempo-rary disa-bility	Total	Death	Perma-nent disa-bility	Tempo-rary disa-bility	Total
1907	27,632	61	106	6,530	6,697	0.7	1.3	78.8	80.8	4.4	1.7	1.1	7.2
1910	202,157	327	848	44,108	45,283	.5	1.4	72.7	74.7	3.2	1.2	.8	5.2
1911	231,544	204	931	34,676	35,811	.3	1.3	49.9	51.5	1.8	1.1	.6	3.5
1912	300,992	348	1,241	54,575	56,164	.4	1.4	60.4	62.2	2.3	1.1	.8	4.2
1913	319,919	426	1,200	55,556	57,182	.4	1.3	57.9	59.6	2.7	.9	.7	4.3
1914	256,299	219	860	37,390	38,469	.3	1.1	48.6	50.0	1.7	.9	.6	3.2
1915	116,224	87	372	13,481	13,940	.2	1.1	38.7	40.0	1.5	.7	.5	2.7
1916	166,646	159	728	20,655	21,542	.3	1.4	41.3	43.0	1.9	1.0	.6	3.5
1917	410,852	523	1,268	57,094	58,885	.4	1.0	46.3	47.7	2.5	.9	.6	4.0
1918	474,435	543	1,253	54,293	56,089	.4	.9	38.1	39.4	2.3	.8	.5	3.6
1919	377,549	419	848	41,009	42,276	.4	1.0	40.2	41.6	2.2	.8	.6	3.6
1920	442,685	327	1,084	49,482	50,893	.2	.8	37.3	38.3	1.5	.8	.4	2.7
1921	237,094	156	527	21,279	21,962	.2	.7	29.9	30.8	1.3	.7	.5	2.5
1922	335,909	236	878	32,120	33,234	.2	.9	31.9	33.0	1.4	.8	.5	2.7
1923	434,693	314	1,188	41,766	43,268	.2	.9	32.1	33.2	1.4	.8	.5	2.7
1924	389,438	312	1,133	34,481	35,920	.3	1.0	29.5	30.8	1.6	.9	.5	3.0
1925	445,223	307	1,091	36,404	37,772	.2	.8	27.3	28.3	1.2	.8	.4	2.5
1926	436,692	222	1,202	31,667	33,230	.2	.9	24.2	25.3	1.7	.8	.4	2.9
1910-1914	1,810,911	1,524	5,080	226,305	232,954	.4	1.3	57.5	59.2	2.3	1.1	.7	4.1
1915-1919	1,545,706	1,731	4,469	186,532	192,732	.4	1.0	40.2	41.6	2.2	.8	.6	3.6
1920-1924	1,839,818	1,345	4,810	179,128	185,277	.2	.9	32.5	33.6	1.5	.8	.5	2.8

*Blast furnaces*

1907	1,566	9	11	456	476	1.9	2.3	97.1	101.3	11.5	2.7	1.8	16.0
1910	19,389	68	68	4,971	5,107	1.2	1.2	85.5	87.9	6.9	1.7	1.0	9.6
1911	21,479	52	54	3,303	3,409	.8	.8	51.3	52.9	4.8	.9	.8	6.5
1912	27,154	73	87	4,790	4,950	.9	1.1	58.8	60.8	5.4	1.0	.8	7.2
1913	31,988	86	80	4,749	4,945	.9	.8	58.1	59.8	5.3	1.0	.9	7.2
1914	26,572	45	77	3,935	4,057	.6	1.0	49.4	51.0	3.5	1.0	.7	5.2
1915	10,721	19	23	981	1,023	.6	.7	30.5	31.8	3.5	.6	.4	4.5
1916	14,905	23	57	1,763	1,843	.5	1.3	39.4	41.2	3.1	.9	.6	4.6
1917	36,202	79	93	4,440	4,612	.7	.9	40.9	42.5	4.4	.9	.5	5.8
1918	41,449	102	72	4,558	4,532	.8	.6	35.0	36.4	4.9	.8	.5	6.2
1919	32,889	94	67	3,745	3,906	1.0	.7	38.0	39.7	5.7	1.0	.5	7.2
1920	35,470	47	58	3,214	3,319	.4	.5	30.2	31.1	2.7	.9	.4	4.0
1921	15,486	23	24	1,160	1,207	.5	.5	25.0	26.0	3.0	.5	.4	3.9
1922	17,933	38	35	1,586	1,659	.7	.7	29.4	30.8	4.2	.4	.5	5.1
1923	29,698	53	68	2,702	2,823	.6	.8	30.3	31.7	3.6	.1	.5	4.2
1924	25,268	50	66	2,248	2,364	.7	.9	29.7	31.3	4.0	1.1	.5	5.6
1925	25,819	40	51	1,789	1,880	.5	.7	23.1	24.3	3.1	.9	.4	4.4
1926	25,893	42	63	1,881	1,986	.5	.8	24.2	25.5	3.2	.8	.5	4.5
1910-1914	126,582	324	366	22,578	23,268	.9	1.0	60.4	62.3	5.2	1.0	.8	7.0
1915-1919	136,166	317	312	15,287	15,916	.8	.8	37.4	39.0	4.7	.9	.5	6.1
1920-1924	123,854	211	251	10,910	11,372	.6	.7	29.4	30.7	3.4	.7	.5	4.5

*Bessemer converters*

1907	967	1	5	383	389	0.3	1.7	132.0	134.0	2.1	0.9	2.4	5.4
1910	5,070	20	18	1,943	1,981	1.3	1.2	127.7	130.2	7.9	.9	1.6	10.4
1911	5,155	6	24	1,237	1,267	.4	1.6	79.9	81.9	2.3	1.1	1.1	4.5
1912	6,521	9	37	1,892	1,938	.5	1.9	96.7	99.1	2.8	1.0	1.5	5.3
1913	6,885	16	42	1,610	1,668	.8	2.0	77.9	80.7	4.6	1.2	1.2	7.0
1914	4,470	6	25	685	716	.4	1.8	51.1	53.3	2.2	1.2	.9	4.3
1915	3,160	6	21	494	517	.2	2.2	52.1	54.5	1.3	1.4	.8	3.5
1916	4,070	13	34	848	894	1.1	2.8	69.5	73.4	6.4	2.1	1.2	9.7
1917	5,979	20	21	1,194	1,235	1.1	1.2	66.6	68.9	6.7	1.3	1.2	9.2
1918	5,881	13	18	877	908	.7	1.0	49.7	51.4	4.4	1.0	.8	6.2
1919	6,555	14	18	849	881	.7	.9	43.2	44.8	4.3	.5	.9	5.7
1920	6,907	5	9	750	764	.2	.4	36.2	36.8	1.4	.3	.6	2.3
1921	3,440	4	6	252	262	.4	.6	24.4	25.4	2.3	.4	.4	3.1

TABLE 4.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, 1907 TO 1926, BY DEPARTMENTS AND BY YEARS AND 5-YEAR PERIODS—Contd.

## Bessemer converters—Continued

Year or period	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 disa-bility	Tem-porary disa-bility	Total	Death	Perma-nent disa-bility	Tem-porary disa-bility	Total	Death	Perma-nent disa-bility	Tem-porary disa-bility	Total
1922	4,778	2	8	233	243	0.1	0.6	16.3	17.8	0.8	0.5	0.3	1.6
1923	6,080	6	20	367	393	.3	1.1	20.1	21.5	2.0	.5	.5	3.0
1924	4,943	7	10	274	291	.5	.7	18.5	19.7	2.8	.6	.3	3.7
1925	4,834	9	10	115	134	.6	.7	7.9	9.2	.7	3.7	.2	4.6
1926	4,526	6	19	178	203	.4	1.3	13.1	14.8	2.7	4.7	.3	7.7
1910-1914	28,101	57	146	7,367	7,570	.7	1.7	87.4	89.8	4.0	1.1	1.3	6.4
1915-1919	25,645	62	112	4,262	4,436	.8	1.5	55.4	57.7	4.8	1.1	1.0	6.9
1920-1924	26,147	24	53	1,876	1,953	.3	.7	23.9	24.9	1.8	.4	.4	2.6

## Open-hearth furnaces

1907	2,987	14	14	908	936	1.6	1.6	101.3	104.5	9.3	4.0	1.1	14.4
1910	9,739	29	53	3,028	3,110	1.0	1.8	103.6	106.4	6.0	2.4	1.4	9.8
1911	10,718	18	45	1,890	1,953	.6	1.4	58.8	60.8	3.4	1.1	.9	5.4
1912	17,355	47	99	4,039	4,185	.9	1.9	77.6	80.4	5.3	1.9	1.0	8.2
1913	20,604	35	95	4,368	4,498	.6	1.5	70.7	72.8	3.4	1.4	1.0	5.8
1914	12,877	14	41	2,484	2,539	.4	1.1	64.3	65.8	2.2	1.5	.8	4.5
1915	5,969	8	20	832	860	.4	1.1	46.5	48.0	2.7	.9	.6	4.2
1916	9,654	12	37	1,458	1,507	.4	1.3	50.3	52.0	2.5	.8	.9	4.4
1917	21,457	47	86	3,187	3,320	.7	1.3	49.5	51.5	4.4	1.2	.8	6.4
1918	26,410	71	103	3,983	4,157	.9	1.3	50.3	52.5	5.4	1.4	1.1	7.9
1919	22,685	53	71	3,103	3,227	.8	1.0	45.6	47.4	4.7	1.3	.8	6.8
1920	28,823	43	70	3,164	3,277	.5	.8	37.0	38.3	3.0	.8	.5	4.3
1921	12,783	9	21	1,082	1,112	.2	.6	28.2	29.0	1.4	.4	.5	2.3
1922	19,805	22	46	1,936	2,004	.4	.8	32.6	33.8	2.2	.9	.5	3.6
1923	24,917	42	74	2,145	2,261	.6	1.0	28.6	30.2	3.4	1.1	.7	5.2
1924	21,493	32	67	1,864	1,963	.5	1.0	28.9	30.4	3.0	.9	.5	4.4
1925	22,837	25	73	1,769	1,867	.4	1.1	25.8	27.3	2.2	1.0	.5	3.7
1926	22,727	51	67	1,322	1,440	.8	1.0	20.0	21.8	4.6	1.2	.5	6.3
1910-1914	71,293	143	333	15,809	16,285	.7	1.5	72.8	75.0	4.0	1.6	1.0	6.6
1915-1919	86,175	191	317	12,563	13,071	.7	1.2	48.6	50.5	4.4	1.2	.9	6.5
1920-1924	107,820	148	278	10,191	10,617	.5	.9	31.5	32.9	2.7	.9	.6	4.2

## Foundries

1907	939	1	3	179	183	0.4	1.1	63.5	65.0	2.1	0.3	1.0	3.4
1910	16,885	7	78	2,615	2,700	.1	1.5	51.6	53.2	.8	1.0	.6	2.4
1911	13,499	18	57	1,970	2,045	.4	1.4	48.6	50.4	2.7	1.0	.6	4.3
1912	23,294	23	135	4,512	4,670	.3	1.9	64.6	66.8	2.1	1.5	.8	4.4
1913	24,605	22	118	5,236	5,376	.3	1.6	70.9	72.8	1.7	1.2	.8	3.7
1914	17,634	14	61	3,432	3,507	.3	1.2	64.9	66.4	1.6	1.0	.7	3.3
1915	1,309	—	2	118	120	—	.5	30.0	30.5	—	—	.2	.6
1916	1,231	1	6	145	152	.3	1.6	39.3	41.2	—	1.6	.6	2.9
1917	31,805	45	101	6,810	6,956	.5	1.1	71.4	73.0	2.8	1.0	.9	4.7
1918	32,181	23	106	5,482	5,611	.2	1.1	56.8	58.1	1.5	1.0	.7	3.2
1919	24,220	15	62	4,048	4,125	.2	.9	55.7	56.8	1.2	.8	.7	2.7
1920	35,300	13	97	6,688	6,798	.1	.9	63.2	64.2	—	.8	.8	2.7
1921	15,388	9	34	2,756	2,799	.2	.7	59.7	60.6	1.2	.7	.8	2.7
1922	22,770	12	59	4,134	4,205	.2	.9	60.5	61.6	1.1	.9	.8	2.7
1923	38,660	26	126	7,171	7,323	.2	1.2	61.8	63.2	1.4	.8	.8	3.0
1924	37,325	21	143	6,820	6,984	.2	1.3	60.9	62.4	1.1	1.1	.8	3.0
1925	35,570	27	128	6,877	7,032	.3	1.2	64.5	65.9	1.5	1.3	.9	3.7
1926	41,501	26	178	7,376	7,571	.2	1.4	59.0	60.6	1.3	1.1	.9	3.3
1910-1914	95,917	84	449	17,665	18,298	.3	1.6	61.7	63.6	1.8	1.1	.7	3.6
1915-1919	92,746	84	277	16,604	16,965	.3	1.0	59.7	61.0	1.8	.9	.7	3.4
1920-1924	149,441	81	459	27,569	28,109	.2	1.0	61.5	62.7	1.1	.9	.8	2.8

TABLE 4.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, 1907 TO 1926, BY DEPARTMENTS AND BY YEARS AND 5-YEAR PERIODS—Contd.

Bar mills

Year or period	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 disa-bility	Tem-porary disa-bility	Total	Death	Perma-nent disa-bility	Tem-porary disa-bility	Total	Death	Perma-nent disa-bility	Tem-porary disa-bility	Total
1915	3,232	1	7	577	585	0.1	0.7	59.5	60.3	0.6	0.6	0.7	1.9
1916	3,042	4	11	783	798	.4	1.2	85.8	87.4	2.6	.5	1.1	4.2
1917	7,472	8	34	1,940	1,982	.4	1.5	86.5	88.4	2.1	1.0	1.0	4.0
1918	5,734	6	18	756	780	.3	1.0	43.9	45.2	2.1	.7	.7	3.5
1919	4,601	1	7	689	697	.1	.5	49.9	50.5	.4	.5	.7	1.6
1920	3,880	1	5	525	531	.1	.4	44.8	45.3	.5	.2	.5	1.2
1921	1,912	5	5	228	233	.9	.9	39.8	40.7	3.7	1.0	.8	5.0
1922	3,780	7	10	392	409	.6	.9	34.6	36.1	.7	.7	.6	1.3
1923	4,003	17	44	443	460	1.4	3.6	35.4	37.8	1.0	.2	.5	1.7
1924	4,093	2	7	285	294	.2	.6	23.2	24.0	.9	.9	.4	2.2
1925	4,471	2	13	324	339	.2	1.0	24.2	25.3	.7	.4	.3	1.4
1926	3,042	1	10	146	157	.1	1.1	16.0	17.2	1.7	.7	.7	3.1
1915-1919	24,081	20	77	4,745	4,842	.3	1.1	65.6	67.0	1.7	.7	.7	3.1
1920-1924	17,666	10	44	1,869	1,923	.2	.8	35.3	36.3	1.1	.6	.5	2.2

Heavy-rolling mills

1907	4,556	8	10	874	892	0.6	0.7	64.0	65.3	3.5	0.3	1.0	4.8
1910	9,442	19	57	2,167	2,243	.7	2.0	76.5	79.2	4.0	1.5	1.0	6.5
1911	12,409	9	48	1,636	1,693	.2	1.3	43.9	45.4	1.4	.9	.7	3.0
1912	16,258	20	41	2,395	2,456	.4	.8	49.1	50.3	2.3	.9	.7	3.9
1913	17,569	16	60	1,910	1,986	.3	1.1	36.2	37.6	1.7	.6	.6	2.9
1914	11,985	10	55	899	964	.3	1.5	25.0	26.8	1.5	1.0	.4	4.4
1915	7,148	10	24	596	630	.5	1.1	27.8	29.4	2.8	1.0	.3	3.2
1916	10,076	7	44	959	1,010	.2	1.5	31.7	33.4	1.4	1.3	.5	4.4
1917	20,530	30	87	1,784	1,901	.5	1.4	29.0	30.9	2.9	1.0	.5	3.8
1918	19,807	24	67	1,900	1,991	.4	1.1	32.0	33.5	2.4	.9	.5	3.9
1919	17,605	20	53	1,711	1,784	.4	1.0	32.4	33.8	2.3	1.1	.5	3.9
1920	20,787	12	34	1,638	1,684	.2	.5	26.3	27.0	1.2	.4	.4	2.0
1921	9,000	3	15	485	503	.1	.5	16.5	17.1	.6	.3	.3	1.2
1922	14,574	9	56	752	817	.2	1.3	17.2	18.7	1.2	.9	.4	2.5
1923	16,602	8	36	882	926	.2	.7	17.7	18.6	1.0	.8	.4	2.1
1924	13,162	18	39	789	846	.5	1.0	20.0	21.5	2.7	.8	.3	3.9
1925	16,553	13	50	747	810	.3	1.0	15.0	16.3	1.6	1.1	.3	2.0
1926	14,553	7	38	417	462	.2	.9	9.5	10.6	1.0	.8	.3	3.0
1910-1914	67,663	74	261	9,007	9,342	.4	1.3	44.4	46.1	2.1	.9	.6	3.6
1915-1919	75,166	91	275	6,950	7,316	.4	1.2	30.8	32.4	2.4	1.0	.5	3.9
1920-1924	74,944	50	180	4,546	4,776	.2	.8	20.2	21.2	1.3	.6	.4	2.3

Plate mills

1907	1,915	4	12	637	653	0.7	2.1	110.9	113.7	4.2	3.7	1.2	9.1
1910	3,287	7	27	602	636	.7	2.7	61.1	64.5	4.3	1.6	.7	6.6
1911	4,390	5	15	590	610	.4	1.1	44.8	46.3	2.3	1.0	.6	3.9
1912	5,128	2	25	893	920	.1	1.6	58.0	59.7	.8	2.0	.8	3.6
1913	5,430	3	25	725	753	.2	1.5	44.5	46.2	1.1	1.2	.6	2.9
1914	3,476	2	13	319	334	.2	1.2	30.6	32.0	1.1	1.0	.5	2.6
1915	2,086	1	9	121	131	.2	1.4	19.3	20.9	1.0	.6	.3	1.9
1916	4,681	3	15	436	454	.2	1.1	31.0	32.3	1.3	.7	.5	2.5
1917	6,764	4	22	766	792	.2	1.1	37.7	39.0	1.2	.9	.5	2.6
1918	9,650	8	19	1,446	1,473	.3	.7	49.9	50.9	1.7	.6	.7	3.0
1919	11,892	9	24	1,247	1,280	.3	.7	35.0	36.0	1.5	.5	.5	2.5
1920	11,928	9	23	1,147	1,179	.3	.6	32.1	33.0	1.5	.6	.4	2.5
1921	4,580	3	7	318	328	.2	.5	23.1	23.8	1.3	.3	.4	2.0
1922	6,198	2	26	581	609	.1	1.4	31.2	32.7	.6	.9	.5	2.0
1923	8,731	5	24	662	691	.2	.9	25.3	26.4	1.1	1.2	.4	2.7
1924	6,454	3	18	506	527	.2	.9	26.1	27.2	.9	.6	.5	2.6
1925	5,734	6	15	370	391	.4	.9	21.5	22.7	2.1	1.2	.4	3.7
1926	7,306	4	25	396	421	.2	1.1	18.1	19.4	1.1	1.0	.4	2.5
1910-1914	27,711	19	105	3,129	3,253	.3	1.6	48.0	49.9	1.8	1.4	.7	3.9
1915-1919	35,073	25	89	4,016	4,130	.2	.8	38.2	39.2	1.4	.6	.5	2.5
1920-1924	37,891	22	98	3,214	3,334	.2	.9	28.3	29.4	1.2	.8	.4	2.4

TABLE 4.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, 1907 TO 1926, BY DEPARTMENTS AND BY YEARS AND 5-YEAR PERIODS—Contd.

## Puddling mills

Year or period	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 disa-bility	Tem-porary disa-bility	Total	Death	Perma-nent disa-bility	Tem-porary disa-bility	Total	Death	Perma-nent disa-bility	Tem-porary disa-bility	Total
1917	4,129	1	10	572	583	0.1	0.8	46.2	47.1	0.5	0.6	0.6	1.7
1918	2,712	3	4	370	377	.4	.5	45.5	46.4	2.2	.4	.6	3.2
1919	1,619	1	1	140	141	-----	-----	28.8	29.0	-----	.1	.4	.5
1920	2,007	1	10	243	254	.2	1.7	40.3	42.2	1.0	.8	.6	2.4
1923	1,620	-----	3	280	283	-----	-----	6.7	57.6	-----	1.1	1.0	2.1
1924	814	-----	4	156	160	-----	-----	1.6	63.9	-----	1.2	1.2	2.4
1925	1,108	-----	6	166	172	-----	-----	1.8	49.9	-----	2.8	.9	3.7
1926	1,591	1	5	204	210	.2	1.0	42.5	43.7	1.2	1.5	.8	3.6
1917-1919	8,460	4	15	1,082	1,101	.2	.6	42.6	43.4	.9	.4	.6	1.9
1920-1924	4,406	-----	9	797	806	-----	-----	60.3	61.0	-----	.8	1.1	1.9

## Sheet mills

1907	2,211	2	8	274	284	0.3	1.2	43.3	44.8	1.8	1.9	0.4	4.1
1910	18,501	28	52	3,310	3,390	.5	.9	59.6	61.0	2.9	.8	.6	4.3
1911	29,710	9	71	3,625	3,705	.1	.8	40.7	41.6	.7	.7	.4	1.8
1912	32,087	19	67	5,497	5,583	.2	.7	57.1	58.0	1.2	.7	.7	2.6
1913	25,938	21	67	3,717	3,805	.3	.9	47.8	49.0	1.6	.5	.6	2.7
1914	22,187	11	51	3,113	3,175	.2	.8	46.8	47.8	.9	.5	.6	2.0
1915	16,266	7	23	1,901	1,931	.1	.5	39.0	39.6	.9	.3	.5	1.7
1916	24,722	13	62	2,655	2,730	.2	.8	35.8	36.8	.6	.5	.5	1.6
1917	26,855	11	38	2,687	2,736	.1	.5	33.4	34.0	.8	.6	.5	1.9
1918	17,278	3	17	937	957	.1	.3	18.1	18.5	.3	.5	.2	1.0
1919	19,214	3	32	1,854	1,889	.1	.6	32.0	32.7	.3	.4	.4	1.1
1920	24,279	14	59	2,979	3,052	.2	.8	40.1	41.0	1.2	.7	.8	2.3
1921	15,845	5	38	1,702	1,745	.1	.8	35.8	36.7	.6	.5	.5	1.6
1922	24,391	10	66	2,951	3,027	.1	.9	40.3	41.3	.8	.8	.9	2.5
1923	29,814	14	61	2,390	2,465	.2	.7	27.6	28.5	1.0	.7	.5	2.2
1924	28,247	7	54	2,457	2,518	.1	.6	29.0	29.7	.5	.7	.5	1.7
1925	32,043	10	56	3,096	3,162	.1	.6	32.2	32.9	.6	.4	.6	1.7
1926	31,712	6	55	2,100	2,161	.1	.6	22.1	22.8	.4	.5	.3	1.2
1910-1914	128,423	88	308	19,262	19,658	.2	.9	50.0	51.1	1.4	.6	.6	2.6
1915-1919	104,335	37	172	10,034	10,243	.1	.5	32.1	32.7	.7	.4	.4	1.5
1920-1924	121,552	50	278	12,479	12,807	.1	.8	34.2	35.1	.8	.7	.6	2.1

## Rod mills

1915	2,062	-----	10	229	239	-----	-----	1.6	37.0	-----	0.7	0.5	1.2
1916	2,493	-----	16	259	275	-----	-----	2.1	34.6	-----	1.9	.5	2.4
1917	4,951	7	23	699	729	0.5	1.5	47.1	49.1	2.8	1.4	.5	4.7
1918	3,249	5	11	350	366	.5	1.1	35.9	37.5	3.1	1.0	.6	4.7
1919	2,463	2	10	184	196	.3	1.4	24.9	26.6	1.6	1.4	.5	3.5
1920	3,729	1	9	344	354	.1	.8	30.7	31.6	.5	.5	.4	1.4
1921	2,099	-----	6	126	132	-----	-----	1.0	20.0	-----	.7	.3	1.0
1922	2,645	1	5	196	202	.1	.6	24.7	25.4	.8	.5	.5	1.8
1923	3,224	1	10	189	200	.1	1.1	20.2	21.4	.6	1.3	.3	2.2
1924	2,828	1	7	127	135	.1	.8	15.0	15.9	.7	.7	.4	1.8
1925	2,907	2	7	146	155	.2	.8	16.7	17.8	1.4	1.0	.3	2.6
1926	2,509	2	8	119	129	.3	1.0	15.5	16.8	1.6	.7	.4	2.7
1915-1919	15,218	14	70	1,721	1,805	.3	1.5	37.7	39.5	1.8	1.3	.5	3.6
1920-1924	14,425	4	37	982	1,023	.1	.9	22.7	23.7	.6	.8	.4	1.7

## Tube mills

1907	2,007	1	4	575	580	0.2	0.7	95.5	96.4	1.0	0.6	1.5	3.1
1910	9,767	3	25	1,608	1,636	.1	.9	54.9	55.9	.6	.4	.7	1.7
1911	13,676	1	53	2,080	2,134	( <sup>1</sup> )	1.3	50.7	52.0	.2	.8	.5	1.5
1912	17,080	10	60	2,154	2,224	.5	1.2	42.0	43.7	1.3	.8	.5	2.6
1913	18,909	15	72	1,586	1,673	.3	1.3	28.0	29.6	1.6	.7	.4	2.7

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

TABLE 4.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, 1907 TO 1926, BY DEPARTMENTS AND BY YEARS AND 5-YEAR PERIODS—Contd.

Tube mills—Continued

Year or period	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 disa-bility	Tempo-rary disa-bility	Total	Death	Perma-nent disa-bility	Tempo-rary disa-bility	Total	Death	Perma-nent disa-bility	Tempo-rary disa-bility	Total
1914.....	13,906	7	39	1,195	1,241	0.2	0.9	28.6	29.7	1.0	0.6	0.4	2.0
1915.....	7,109	2	21	182	205	.1	1.0	8.5	9.6	.6	.6	.2	1.4
1916.....	11,355	2	26	425	453	.1	.8	12.5	13.4	.4	.3	.3	1.0
1917.....	19,819	17	51	1,967	2,035	.3	.9	33.1	34.3	1.7	.5	.4	2.6
1918.....	18,499	8	41	1,127	1,176	.1	.7	20.3	21.1	.9	.4	.3	1.6
1919.....	18,326	9	39	1,127	1,172	.2	.7	20.4	21.3	1.0	.6	.3	1.9
1920.....	22,666	13	71	2,166	2,250	.2	1.0	31.9	33.1	1.1	.5	.5	2.1
1921.....	14,622	4	35	840	879	.1	.8	19.1	20.0	.5	.5	.4	1.4
1922.....	19,535	6	40	1,332	1,378	.1	.7	22.7	23.5	.6	.6	.4	1.6
1923.....	24,766	8	54	1,292	1,354	.1	.7	17.4	18.2	.6	.6	.3	1.5
1924.....	22,655	14	68	1,185	1,267	.2	1.0	17.2	18.4	1.2	.6	.3	2.1
1925.....	25,511	10	64	1,142	1,216	.1	.8	14.9	15.9	.8	.6	.3	1.7
1926.....	32,089	9	95	1,524	1,628	.1	1.0	15.9	17.0	.6	.7	.2	1.5
1910-1914.....	73,338	36	249	8,623	8,908	.2	1.1	39.2	40.5	1.0	.7	.5	2.2
1915-1919.....	75,108	38	178	4,825	5,041	.2	.8	21.4	22.4	1.0	.5	.3	1.8
1920-1924.....	104,577	45	268	6,815	7,128	.1	.9	21.7	22.7	.9	.6	.4	1.9

Unclassified rolling mills

1910.....	14,434	15	49	4,861	4,925	0.3	1.1	112.3	113.7	2.1	1.6	1.3	5.0
1911.....	21,231	16	76	3,388	3,480	.3	1.2	53.2	54.7	1.5	1.1	.7	3.3
1912.....	22,909	16	76	4,660	4,752	.2	1.1	67.8	69.1	1.5	1.0	.9	3.4
1913.....	23,382	24	84	5,051	5,159	.3	1.2	72.0	73.5	2.0	1.1	1.0	4.1
1914.....	22,873	11	75	3,541	3,627	.2	1.1	51.6	52.9	1.0	.8	.7	2.5
1915.....	4,367	2	14	475	491	.2	1.1	36.2	37.5	.9	.5	.4	1.8
1916.....	8,082	5	25	922	952	.2	1.0	38.0	39.2	1.2	.6	.7	2.5
1917.....	27,978	10	60	4,265	4,335	.1	.7	50.8	51.6	.7	.7	.7	2.1
1918.....	37,163	22	74	4,015	4,111	.2	.7	36.8	36.9	1.2	.5	.5	2.2
1919.....	25,106	14	45	2,967	3,026	.2	.6	39.4	40.2	1.1	.4	.6	2.1
1920.....	21,055	16	68	2,785	2,869	.3	1.1	44.1	45.4	1.5	.9	.5	2.9
1921.....	12,068	4	36	1,479	1,519	.1	1.0	40.9	42.0	.7	.9	.7	2.3
1922.....	19,382	10	59	2,416	2,485	.2	1.0	41.5	42.7	1.0	.9	.7	2.6
1923.....	26,357	11	92	2,830	2,933	.1	1.2	35.8	37.1	.8	1.3	.6	2.7
1924.....	21,664	11	77	2,193	2,277	.2	1.2	33.5	34.9	1.0	1.3	.6	2.9
1925.....	26,353	9	59	1,836	1,904	.1	.8	23.2	24.1	.7	.5	.4	1.6
1926.....	25,268	5	66	1,783	1,754	.1	.9	23.5	24.5	.4	.7	.4	1.5
1910-1914.....	104,829	82	360	21,501	21,943	.3	1.2	71.8	73.3	1.7	1.1	.9	3.7
1915-1919.....	102,696	53	218	12,644	12,915	.2	.7	41.0	41.9	1.0	.5	.6	2.1
1920-1924.....	109,555	55	345	12,631	13,027	.2	1.0	38.4	39.6	1.0	1.1	.6	2.7

Fabricating shops

1907.....	2,081	6	12	571	589	1.0	1.9	91.5	94.4	5.8	2.9	0.8	9.5
1910.....	8,713	11	33	3,901	3,945	.4	1.3	149.2	150.9	2.5	1.0	1.9	5.4
1911.....	19,530	8	92	3,244	3,344	.1	1.6	55.4	57.1	.7	1.0	.6	2.3
1912.....	28,988	32	119	6,890	7,041	.4	1.4	79.2	81.0	2.1	.9	.8	3.8
1913.....	30,470	34	104	7,368	7,506	.4	1.1	80.6	82.1	2.2	.8	.8	3.8
1914.....	20,837	13	77	4,103	4,193	.2	1.2	65.6	67.0	1.2	1.0	.7	2.9
1915.....	3,818	3	15	471	489	.3	1.3	41.1	42.7	1.6	.6	.7	2.9
1916.....	4,980	7	25	703	735	.5	1.7	47.1	49.3	2.8	.7	.9	4.4
1917.....	23,614	21	67	4,192	4,280	.3	.9	59.2	60.4	1.8	.6	.7	3.1
1918.....	29,166	22	29	5,077	5,128	.3	.3	58.0	58.6	1.5	.5	.6	2.6
1919.....	19,407	6	27	2,752	2,785	.1	.5	47.3	47.9	.7	.3	.5	1.5
1920.....	17,216	14	68	2,721	2,803	.2	1.3	52.7	54.2	1.6	1.1	.6	3.1
1921.....	12,908	5	45	1,971	2,021	.1	1.2	50.9	52.2	.8	.7	.6	2.1
1922.....	16,184	14	41	3,381	3,436	.3	.8	69.6	70.7	1.7	.8	.8	3.3
1923.....	22,547	9	52	4,019	4,080	.1	.8	59.4	60.3	.8	.7	.7	2.2
1924.....	10,626	5	63	1,787	1,855	.1	1.0	28.3	29.4	.5	.8	.5	1.8
1925.....	15,718	3	35	857	895	.1	.7	18.2	19.0	.4	.9	.4	1.7
1926.....	15,467	7	64	756	827	.2	1.4	16.4	18.0	.9	1.0	.4	2.3
1910-1914.....	108,538	98	425	25,506	26,029	.3	1.3	78.3	79.9	1.7	.9	.8	3.4
1915-1919.....	80,985	59	163	13,195	13,417	.2	.7	54.3	55.2	1.5	.5	.6	2.6
1920-1924.....	89,880	47	269	13,879	14,195	.2	1.0	51.5	52.7	1.0	.8	.6	2.4

TABLE 4.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, 1907 TO 1926, BY DEPARTMENTS AND BY YEARS AND 5-YEAR PERIODS—Contd.

## Forge shops

Year of period	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 disa-bility	Tempo-rary disa-bility	Total	Death	Perma-nent disa-bility	Tempo-rary disa-bility	Total	Death	Perma-nent disa-bility	Tempo-rary disa-bility	Total
1917-----	3,881	3	15	917	935	0.3	1.3	78.8	80.4	1.5	1.6	1.3	4.4
1918-----	6,408	4	26	1,009	1,039	.2	1.4	53.2	54.8	1.2	1.1	.7	3.0
1919-----	2,169	2	4	257	263	.3	.6	39.5	40.4	1.8	.3	.6	2.7
1920-----	2,197	-----	5	380	385	-----	-----	58.6	59.4	-----	.8	.7	1.5
1921-----	902	1	3	107	111	.4	1.1	39.5	41.0	2.2	1.0	.7	3.9
1922-----	1,514	2	8	233	243	.4	1.8	51.3	53.5	2.6	1.7	.9	5.2
1923-----	2,049	1	9	309	319	.2	1.5	50.2	51.9	1.0	.9	.7	2.6
1924-----	2,272	-----	9	567	576	-----	-----	83.2	84.5	-----	1.5	1.2	2.7
1925-----	3,794	3	11	893	907	.3	1.0	78.5	79.7	1.6	.9	.8	3.3
1926-----	1,190	-----	7	263	270	-----	-----	48.7	50.0	-----	.4	.7	1.1
1910-1914-----	6,249	8	19	1,080	1,107	.4	1.0	57.6	59.0	2.6	.6	.7	3.9
1915-1919-----	12,667	9	45	2,189	2,243	.2	1.2	57.6	59.0	1.4	1.1	.9	3.4
1920-1924-----	8,901	4	34	1,596	1,634	.1	1.3	59.8	61.2	.9	1.2	.9	3.0

## Wire drawing

1910-----	10,370	5	84	2,323	2,412	0.2	2.7	74.7	77.6	1.0	2.6	0.7	4.3
1911-----	11,819	4	89	2,270	2,363	.1	2.3	59.0	61.4	.6	2.0	.6	3.2
1912-----	13,059	4	104	2,627	2,735	.1	2.7	67.1	69.9	.6	2.5	.7	3.8
1913-----	12,769	6	59	2,542	2,607	.2	1.5	66.4	68.1	.9	1.1	.7	2.7
1914-----	11,468	2	47	1,742	1,791	.1	1.4	50.6	52.1	.4	1.3	.5	2.2
1915-----	7,859	1	62	1,831	1,894	.3	2.6	77.7	80.3	.3	2.4	.8	3.5
1916-----	9,551	4	104	1,764	1,872	.1	3.6	61.6	65.3	.8	2.9	.6	4.3
1917-----	13,727	3	63	1,700	1,766	.1	1.5	43.2	42.9	.4	1.0	.6	2.0
1918-----	12,790	4	60	991	1,055	.1	1.6	25.8	27.5	.6	1.2	.4	2.2
1919-----	8,739	-----	32	626	658	-----	-----	23.9	25.1	-----	1.0	.4	1.4
1920-----	13,243	2	63	1,252	1,317	.1	1.6	31.5	33.2	.3	1.7	.5	2.5
1921-----	9,186	4	36	527	567	.1	1.3	19.1	20.6	.9	1.4	.4	2.7
1922-----	13,836	3	53	837	893	.1	1.3	20.2	21.6	.4	1.3	.4	2.1
1923-----	14,783	2	54	919	975	.4	1.2	20.7	21.9	.3	1.2	.4	1.9
1924-----	11,567	-----	44	711	755	-----	-----	20.5	21.8	-----	1.8	.3	2.1
1925-----	13,758	2	47	938	987	.1	1.1	22.7	23.9	.3	1.2	.4	1.9
1926-----	13,329	3	34	601	638	.1	.9	15.0	16.0	.5	.8	.3	1.6
1910-1914-----	59,481	21	383	11,504	11,908	.1	2.1	63.5	65.7	.7	1.9	.6	3.2
1915-1919-----	52,666	12	321	6,912	7,245	.1	2.0	43.7	45.8	.5	1.6	.5	2.6
1920-1924-----	62,614	11	250	4,246	4,507	.1	1.3	22.6	24.0	.4	1.5	.4	2.3

## Electrical department

1910-----	1,526	2	3	282	287	0.4	0.7	61.6	62.7	2.6	0.9	0.7	4.2
1911-----	2,700	3	9	356	368	.4	1.1	43.0	44.5	2.2	.9	.5	3.6
1912-----	3,796	6	15	523	544	.5	1.3	45.9	47.7	3.1	1.7	.5	5.3
1913-----	4,012	14	15	495	524	1.2	1.2	41.1	43.5	7.0	1.2	.5	8.7
1914-----	2,327	8	6	301	315	1.1	.9	43.1	45.1	6.9	1.0	.5	8.4
1915-----	612	1	1	23	25	.5	.5	12.5	13.5	3.3	.2	1	3.6
1916-----	1,635	6	6	289	301	1.2	1.2	58.9	61.3	7.3	.4	.8	8.5
1917-----	4,385	16	16	571	603	1.2	1.2	43.4	45.8	7.3	1.3	.7	9.3
1918-----	4,747	10	10	455	505	.7	.7	34.1	35.5	4.2	1.1	.4	5.7
1919-----	4,644	13	7	483	503	.9	.5	34.7	36.1	5.6	.9	.5	7.0
1920-----	4,473	5	3	403	411	.4	.2	30.0	30.6	2.2	.1	.4	2.7
1921-----	3,025	2	3	188	193	.2	.3	20.7	21.2	1.3	.6	.3	2.2
1922-----	3,528	4	1	164	169	.4	.1	15.5	16.0	2.3	.1	.4	2.8
1923-----	4,325	5	8	215	228	.4	.6	16.6	17.6	2.3	.4	.3	3.0
1924-----	3,989	7	6	171	184	.6	.5	14.3	15.4	3.5	.4	.3	3.2
1925-----	4,011	6	5	148	159	.5	.4	12.3	13.2	3.0	.6	.3	3.9
1926-----	4,611	6	6	131	143	.4	.4	9.6	10.4	2.6	.3	.3	3.2
1910-1914-----	14,921	33	48	1,957	2,038	.8	1.1	45.2	47.1	4.6	1.2	.5	6.3
1915-1919-----	16,023	46	40	1,851	1,937	1.0	.8	38.5	40.3	5.7	1.0	.5	7.2
1920-1924-----	19,339	23	21	1,141	1,185	.4	.4	19.7	20.5	2.4	.3	.3	3.0



TABLE 4.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, 1907 TO 1926, BY DEPARTMENTS AND BY YEARS AND 5-YEAR PERIODS—Contd.

*Mechanical department*

Year or period	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 disa-bility	Tem-porary disa-bility	Total	Death	Perma-nent disa-bility	Tem-porary disa-bility	Total	Death	Perma-nent disa-bility	Tem-porary disa-bility	Total
1908-----	1,619	4	7	430	441	0.8	1.4	89.1	91.3	4.9	0.6	1.1	6.6
1910-----	15,927	18	56	2,618	2,692	.4	1.2	54.8	56.4	2.3	.9	.5	3.7
1911-----	17,863	13	80	3,015	3,108	.2	1.5	56.3	58.0	1.5	1.1	.7	3.3
1912-----	21,591	19	95	4,040	4,154	.3	1.5	62.4	64.2	1.8	1.2	.8	3.8
1913-----	24,009	36	103	4,972	5,111	.5	1.4	69.0	70.9	2.9	1.0	.9	4.8
1914-----	17,772	18	60	3,149	3,227	.3	1.1	59.1	60.5	2.0	1.0	.7	3.7
1915-----	5,987	3	27	573	603	.2	1.5	31.9	33.6	1.0	.7	.4	2.1
1916-----	16,920	9	86	2,245	2,340	.2	1.7	44.2	46.1	1.1	1.5	.6	3.2
1917-----	33,328	43	134	5,201	5,378	.4	1.3	52.0	53.7	2.6	1.0	.8	4.4
1918-----	58,002	54	162	6,054	6,270	.3	.9	34.8	36.0	1.9	1.0	.4	3.3
1919-----	40,609	45	83	4,483	4,611	.4	.7	36.8	37.9	2.2	.7	.5	3.4
1920-----	34,648	26	68	3,767	3,861	.3	.7	36.2	37.2	1.5	.6	.5	2.6
1921-----	25,036	21	41	1,703	1,775	.3	.5	22.7	23.6	1.7	.5	.4	2.5
1922-----	30,324	25	75	1,626	1,726	.3	.8	17.9	19.0	1.6	.7	.3	2.6
1923-----	37,449	37	102	2,045	2,184	.3	.9	18.2	19.4	2.0	1.0	.3	3.3
1924-----	31,331	29	80	1,855	1,964	.3	.8	17.8	18.9	1.7	.6	.3	2.6
1925-----	36,666	31	71	1,717	1,819	.3	.7	15.6	16.6	1.7	.7	.3	2.7
1926-----	38,953	32	74	1,887	1,993	.3	.6	16.1	17.0	1.6	.6	.3	2.5
1910-1914-----	97,161	104	392	17,794	18,292	4	1.3	61.0	62.7	2.1	1.1	.8	4.0
1915-1919-----	154,846	154	492	18,556	19,202	.3	1.1	39.9	41.3	2.0	1.0	.5	3.5
1920-1924-----	162,121	138	366	10,996	11,510	.3	.8	22.6	23.7	1.7	.7	.4	2.8

*Power houses*

1917-----	4,552	7	7	210	224	0.5	0.5	15.4	16.4	3.1	1.0	0.3	4.4
1918-----	3,699	9	10	254	273	.8	.9	22.9	24.6	4.9	.5	.4	5.8
1919-----	4,093	11	2	213	226	.9	.2	17.3	18.4	5.4	.1	.2	5.7
1920-----	4,591	4	1	172	177	.3	.1	12.5	12.9	1.7	(1)	.2	1.9
1921-----	2,344	2	-----	77	79	.3	-----	10.9	11.2	1.7	-----	.2	1.9
1922-----	3,361	-----	5	115	120	-----	.5	11.4	11.9	-----	.7	.2	.9
1923-----	4,070	6	4	117	127	.5	.3	9.6	10.4	2.9	.4	.1	3.4
1924-----	4,511	5	8	157	170	.4	.6	11.6	12.6	2.2	.6	.2	3.0
1925-----	4,218	3	4	183	190	.2	.3	14.5	15.0	1.4	.3	.3	2.0
1926-----	3,446	3	3	56	62	.3	.3	5.4	6.0	1.7	.4	.1	2.2
1912-1914-----	8,083	6	21	544	571	.2	.9	22.4	23.5	1.5	.8	.3	2.6
1915-1919-----	13,219	27	21	739	787	.7	.5	18.6	19.8	4.1	.6	.3	5.0
1920-1924-----	18,878	17	18	638	673	.3	.3	11.3	11.9	1.8	.3	.2	2.3

*Yards*

1907-----	2,618	5	10	509	524	0.6	1.2	64.8	66.6	3.8	2.6	1.1	7.5
1910-----	15,932	40	49	2,054	2,143	.8	1.0	43.0	44.8	5.0	1.0	.5	6.5
1911-----	9,085	11	43	1,336	1,390	.4	1.6	49.0	51.0	2.4	1.9	.7	5.0
1912-----	11,180	23	64	1,940	2,027	.7	1.9	57.8	60.4	4.1	1.4	.8	6.3
1913-----	11,859	28	50	1,807	1,885	.8	1.4	52.0	54.2	4.7	1.0	.7	6.4
1914-----	7,879	10	37	975	1,022	.4	1.6	41.2	43.2	2.5	1.4	.6	4.5
1915-----	3,843	-----	15	417	432	-----	1.3	36.2	37.5	-----	1.0	.4	1.4
1916-----	7,853	12	56	929	997	.5	2.4	39.4	42.3	3.1	2.2	.6	5.9
1917-----	15,732	36	77	1,792	1,905	.8	1.6	38.0	40.4	4.6	1.7	.6	6.9
1918-----	16,354	33	62	1,526	1,621	.7	1.2	31.1	33.0	4.0	1.2	.6	5.8
1919-----	10,108	25	48	1,021	1,094	.8	1.6	33.7	36.1	4.9	1.9	.6	7.4
1920-----	12,087	10	33	922	965	.3	.9	25.4	26.6	1.7	1.3	.4	3.4
1921-----	5,840	6	22	422	450	.3	1.3	24.1	25.7	2.1	1.9	.5	4.4
1922-----	7,969	15	16	536	567	.6	.7	22.4	23.7	3.8	.5	.5	4.8
1923-----	8,381	12	35	693	740	.5	1.4	27.5	29.4	2.9	1.9	.4	5.2
1924-----	8,269	10	19	617	644	.4	.8	24.9	26.1	2.4	.9	.5	3.8
1925-----	7,683	12	24	755	791	.5	1.0	32.8	34.3	3.1	1.6	.6	5.3
1926-----	9,857	19	19	474	512	.7	.7	16.0	17.4	3.9	.6	.4	4.9
1910-1914-----	55,932	112	243	8,112	8,467	.7	1.5	48.6	50.8	4.0	1.4	.6	6.0
1915-1919-----	53,890	106	258	5,685	6,049	.7	1.6	35.2	37.5	3.9	1.6	.6	6.1
1920-1924-----	42,546	53	125	3,190	3,366	.4	1.0	25.0	26.4	2.5	1.2	.4	4.1

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

TABLE 4.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, 1907 TO 1926, BY DEPARTMENTS AND BY YEARS AND 5-YEAR PERIODS—Contd.

*Erection of structural steel*

Year or period	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 disability	Tempo-rary disability	Total	Death	Perma-nent disability	Tempo-rary disability	Total	Death	Perma-nent disability	Tempo-rary disability	Total
1915.....	803	8	7	251	266	3.3	2.9	104.2	110.4	19.9	4.3	1.2	25.4
1916.....	1,011	10	3	251	264	3.3	1.0	82.7	87.0	19.8	1.7	1.7	23.2
1917.....	1,156	12	15	442	469	3.5	4.3	127.5	135.3	20.8	4.0	2.2	27.0
1918.....	1,234	10	3	364	377	2.7	.8	98.3	101.8	16.2	2.0	1.4	19.6
1919.....	775	5	7	214	226	2.2	3.0	86.8	92.0	12.9	1.3	1.3	15.5
1920.....	637	6	12	204	222	3.3	6.6	111.8	121.7	19.7	3.7	2.5	25.9
1921.....	573	5	4	168	177	2.9	2.3	97.8	103.0	17.5	1.1	1.7	20.2
1922.....	595	5	2	129	136	2.8	1.1	72.3	76.2	16.8	2.5	1.8	21.1
1923.....	912	3	7	234	244	1.1	2.6	85.5	89.2	6.6	1.6	1.2	9.4
1924.....	1,009	10	10	291	311	3.3	3.3	96.1	102.7	19.8	3.4	1.9	25.1
1925.....	937	9	3	188	200	3.2	1.1	66.9	71.2	19.2	2.2	1.0	22.4
1926.....	774	11	5	180	196	4.8	2.2	78.3	85.3	28.4	2.3	1.3	32.0
1912-1914.....	2,157	26	24	738	788	4.0	3.7	114.0	121.7	24.1	5.5	1.8	31.4
1915-1919.....	4,979	45	35	1,522	1,602	3.0	2.3	101.9	107.2	18.1	2.6	1.6	22.3
1920-1924.....	3,726	29	35	1,026	1,090	2.6	3.1	91.8	97.5	15.6	2.5	1.8	19.9

*Coke ovens<sup>2</sup>*

1915.....	1,648	2	4	128	134	0.4	0.8	25.9	27.1	2.4	0.6	0.3	3.3
1916.....	2,195	5	6	150	161	.8	.9	22.7	24.4	4.6	.5	.4	5.5
1917.....	6,641	26	10	508	544	1.3	.5	23.5	27.3	7.8	.5	.4	8.7
1918.....	9,395	21	14	662	697	.7	.5	25.5	24.7	4.5	.5	.4	5.4
1919.....	9,022	12	10	647	669	.4	.4	23.9	24.7	2.7	.6	.4	3.7
1920.....	8,620	6	11	518	535	.2	.4	10.0	10.6	1.4	.7	.3	2.4
1921.....	5,768	2	4	182	188	.1	.2	10.5	10.8	.7	.3	.2	1.1
1922.....	6,554	2	1	207	210	.1	.1	10.5	10.7	.6	.2	.2	1.0
1923.....	8,961	7	14	416	437	.3	.5	15.5	16.3	1.6	1.1	.3	3.0
1924.....	7,506	9	15	254	278	.4	.7	11.3	12.4	2.4	.9	.2	3.5
1925.....	7,599	4	14	142	160	.2	.6	6.2	7.0	1.1	.9	.2	2.2
1926.....	10,745	19	22	277	318	.6	.7	8.6	9.9	3.5	.7	.2	4.4
1912-1914.....	13,282	27	39	1,651	1,717	.7	1.0	41.4	43.1	4.1	1.5	.6	6.2
1915-1919.....	28,901	66	44	2,095	2,205	.8	.5	24.1	25.4	4.6	.5	.4	5.5
1920-1924.....	37,409	26	45	1,577	1,648	.2	.4	14.1	14.7	1.4	.7	.2	2.3

*Miscellaneous departments*

Year or period	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 disability	Tempo-rary disability	Total	Death	Perma-nent disability	Tempo-rary disability	Total	Death	Perma-nent disability	Tempo-rary disability	Total
1915.....	191	1	1	21	22	1.7	36.6	38.3	38.3	3.1	0.3	0.3	3.4
1916.....	372	1	1	17	17	1.7	15.2	15.2	15.2	3.1	0.3	0.3	3.4
1917.....	713	1	1	81	81	1.7	37.9	37.9	37.9	3.1	0.3	0.3	3.4
1918.....	609	3	3	156	159	1.6	85.4	87.0	87.0	3.9	1.1	1.1	5.0
1919.....	582	1	1	63	63	1.7	36.1	36.1	36.1	3.1	0.3	0.3	3.4
1920.....	743	1	1	100	100	1.7	44.8	44.8	44.8	3.1	0.3	0.3	3.4
1921.....	242	1	1	12	13	1.3	16.5	17.9	17.9	8.3	1.1	1.1	8.7
1922.....	490	1	1	11	11	1.7	7.5	7.5	7.5	3.1	0.3	0.3	3.4
1923.....	774	1	1	30	30	1.7	12.9	12.9	12.9	3.1	0.3	0.3	3.4
1924.....	516	1	1	22	24	.6	14.2	15.4	15.4	3.9	.2	.2	4.3
1925.....	436	1	1	6	6	1.7	4.6	4.6	4.6	3.1	0.3	0.3	3.4
1926.....	340	1	1	9	13	1.7	4.9	1.3	1.3	2.8	3.2	6.0	6.7
1912-1914.....	1,326	2	4	438	444	.5	1.0	110.1	111.6	3.0	2.1	1.6	6.7
1915-1919.....	2,467	4	4	338	342	.5	.5	45.7	46.2	1.2	1.2	.7	1.9
1920-1924.....	2,764	2	1	175	178	.2	.1	21.1	21.5	1.4	(0)	.3	1.7

<sup>1</sup> Less than one-tenth of 1 per cent.<sup>2</sup> This section of the table covers only those coke ovens operated in connection with steel works. For more complete information, see publications of the Bureau of Mines.

TABLE 4.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, 1907 TO 1926, BY DEPARTMENTS AND BY YEARS AND 5-YEAR PERIODS—Contd.

Miscellaneous departments—Continued

Year or period	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 disa-bility	Tempo-rary disa-bility	Total	Death	Perma-nent disa-bility	Tempo-rary disa-bility	Total	Death	Perma-nent disa-bility	Tempo-rary disa-bility	Total
<i>Car wheels</i>													
1915	389	1	25	26		0.9	21.4	22.3		0.3	0.7	1.0	
1916	734	2	348	352	0.9	158.0	159.0	5.4	1.0	2.1	8.5		
1917	1,296	3	250	257	.8	1.0	64.3	66.1	4.6	.4	.9	5.9	
1918	1,866	1	337	338	.2		60.2	60.4	1.1		.6	1.7	
1919	1,619	1	353	365	.2	2.3	72.6	75.1	1.2	1.0	1.0	3.2	
1920	1,215	4	170	174		1.0	46.7	47.7		.9	.6	1.5	
1921	552	1	92	95	.6	1.2	56.7	58.6	3.6	.5	.7	4.9	
1922	1,102		78	78			23.6	23.6			.6	.6	
1923	1,099	1	116	118	.3	.3	35.2	35.8	1.8	.2	.8	2.8	
1924	1,083	1	137	141	.3	.9	42.2	43.4	1.8	.3	.8	2.9	
1925	931		69	72		1.1	24.7	25.8		1.3	.6	1.9	
1926	792		32	35		1.2	13.3	14.5		1.6	.4	2.0	
1912-1914	2,367	3	609	627	.4	2.1	85.8	88.3	2.5	.9	1.3	4.7	
1915-1919	5,904	7	1,313	1,338	.4	1.0	74.1	75.5	2.4	.5	1.0	3.9	
1920-1924	5,050	3	595	608	.2	.7	39.3	40.2	1.2	.4	.7	2.3	
<i>Docks and ore yards</i>													
1915	115	2	7	9		5.8	20.3	26.1		2.3	0.1	2.4	
1916	195	3	16	21	5.1	3.4	27.4	35.9	30.8	7.3	.5	38.6	
1917	353	2	78	81	1.9	.9	73.6	76.4	11.3	.7	1.0	13.0	
1918	368	1	35	37	.9	.9	31.7	33.5	5.4	.3	.3	6.0	
1919	352	6	39	45		5.7	37.0	42.7		10.4	.5	10.9	
1920	379	1	12	15	.9	1.8	10.6	13.3	5.3	2.9	.1	8.3	
1921	235		11	11			15.6	15.6			.5	.5	
1922	271	3	7	13	3.7	3.7	8.6	16.0	22.2	7.6	.3	30.1	
1923	538	3	15	18		1.9	9.2	11.1		3.9	.2	4.1	
1924	340	4	12	16		3.9	11.8	15.7		14.4	.3	14.7	
1925	388	2	7	9	1.7		6.0	7.7	10.3		.3	10.6	
1926	389	1	8	9		.1	.7	.8		2.6	.3	2.9	
1911-1914	1,293	3	119	153	.8	2.8	35.8	39.4	4.6	2.8	.8	8.2	
1915-1919	1,383	6	175	193	1.4	2.9	42.2	46.5	8.7	4.1	.5	13.3	
1920-1924	1,761	4	57	73	.8	2.3	10.8	13.9	4.5	5.8	.3	10.6	
<i>Woven wire fence</i>													
1915	1,552	10	294	304		2.1	63.1	65.2		1.2	0.5	1.7	
1916	1,623	18	180	198		3.7	37.0	40.7		3.0	.4	3.4	
1917	1,269	10	98	108		2.6	25.7	28.3		2.1	.4	2.5	
1918	1,531	5	77	82		1.1	16.8	17.9		1.0	.2	1.2	
1919	1,336	1	45	46	0.2	1.0	8.7	9.9	1.5	.6	.2	2.3	
1920	1,097	6	48	54		1.8	14.6	16.4		2.9	.2	3.1	
1921	1,065	3	79	82		.9	24.1	30.0		.8	.4	1.1	
1922	1,528	6	85	91		1.3	18.5	19.8		.7	.2	1.9	
1923	1,603	1	124	128	.2	.6	25.8	26.6	1.2	1.3	.2	1.5	
1924	1,301	6	63	69		1.5	16.1	17.6		.5	.2	.8	
1925	1,290	2	105	107		1.5	27.1	27.6		.5	.3	.8	
1926	1,363	6	83	89		1.5	30.8	32.3		.5	.3	.8	
1915-1919	7,311	1	47	684	732	.1	2.1	21.2	33.4	.3	1.6	.3	2.2
1920-1924	6,623	1	24	399	424	.1	1.2	20.1	21.4	.3	1.2	.3	1.8

TABLE 4.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY, 1907 TO 1926, BY DEPARTMENTS AND BY YEARS AND 5-YEAR PERIODS—Contd.

*Miscellaneous departments—Continued*

Year or period	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 disa- bility	Tempo- rary disa- bility	Total	Death	Perma- nent disa- bility	Tempo- rary disa- bility	Total	Death	Perma- nent disa- bility	Tempo- rary disa- bility	Total
<i>Nails and staples</i>													
1915	1,546	1	12	181	194	0.2	2.6	39.0	41.8	1.3	1.7	0.3	3.3
1916	1,993		10	236	246		.2	39.5	39.7		1.0	1.4	2.4
1917	2,323	1	16	184	201	.1	2.3	26.4	28.8	.9	2.1	.3	3.3
1918	1,916		10	123	133		1.7	21.4	23.1		1.2	.2	1.4
1919	2,040		8	58	66		1.3	9.5	10.8		.5	.1	.6
1920	2,364		8	164	172		1.1	23.1	24.2		.8	.1	.9
1921	1,718	1	6	91	98	.2	1.2	17.7	19.0	1.2	.6	.3	2.1
1922	2,366	1	10	121	132	.1	1.4	17.0	18.5	.8	1.3	.3	2.4
1923	3,404	1	7	131	139	.1	.9	17.4	18.5	.8	1.2	.2	2.2
1924	1,939		6	81	87		1.0	13.9	14.9		1.0	.2	1.2
1925	1,925		6	88	94		1.0	15.2	16.2		1.6	.2	1.8
1926	2,658		2	100	102		.3	16.4	16.7		.1	.2	.3
1915-1919	9,818	2	56	762	840	.1	1.9	26.5	28.5	.4	1.3	.3	2.0
1920-1924	10,890	3	37	588	628	.1	1.1	18.0	19.2	.6	1.0	.2	1.8
<i>Hot mills</i>													
1923	6,374	2	9	820	831	0.1	0.5	42.9	43.5	0.6	0.4	0.5	1.5
1924	5,789	1	7	634	642	.1	.4	36.6	37.1	.3	.5	.6	1.4
1925	7,773	4	19	913	936	.2	.8	39.1	40.1	1.0	.7	.6	2.4
1926	4,319	4	15	834	853	.3	1.2	64.2	65.7	3.9	1.3	1.6	6.8
1920-1924	30,018	11	39	3,223	3,273	.1	.4	35.8	36.3	.7	.4	.5	1.6
<i>Cold rolling</i>													
1926	1,824		2	211	213		0.4	38.3	38.7		0.8	0.4	1.2
<i>Unclassified</i>													
1915	21,547	16	41	2,749	2,806	0.2	0.6	42.5	43.3	1.5	0.6	0.6	2.7
1916	24,216	17	72	2,714	2,803	.2	1.0	37.4	38.6	1.4	1.4	.6	3.4
1917	71,249	65	164	8,165	8,394	.3	.8	38.2	39.3	1.8	.8	.5	3.1
1918	97,513	79	284	9,930	10,293	.3	1.0	33.9	35.2	1.6	.9	.5	2.9
1919	78,804	60	145	7,054	7,259	.3	.6	29.8	30.7	1.5	.7	.4	2.6
1920	104,741	72	261	11,208	11,541	.2	.8	35.7	36.7	1.4	.9	.5	2.8
1921	53,403	36	134	4,468	4,638	.2	.8	27.9	28.9	1.3	.8	.5	2.6
1922	79,405	39	233	6,848	7,120	.2	1.0	28.7	29.9	1.0	.8	.4	2.2
1923	95,138	52	273	9,719	10,044	.2	1.0	34.1	35.3	1.1	.9	.5	2.5
1924	93,018	66	285	8,032	8,383	.2	1.0	28.8	30.0	1.4	.9	.5	2.8
1925	132,291	45	308	10,648	11,001	.1	.8	26.8	27.7	.7	.7	.4	1.8
1926	112,826	58	306	8,325	8,689	.2	.9	24.6	25.7	1.0	.7	.3	2.0
1915-1919	293,329	237	706	30,612	31,555	.3	.8	34.8	35.9	1.6	1.3	.5	3.4
1920-1924	425,704	265	1,186	40,275	41,736	.2	.9	31.5	32.6	1.2	.9	.5	2.6

## Quarry Accidents in the United States in 1925

A SLIGHT improvement in the accident record of the stone-quarrying industry is indicated by the recent report (Bulletin 286) of the United States Bureau of Mines on quarry accidents in the United States during the calendar year 1925. In this industry, which employed a total of 91,872 men (about 2 per cent less than in 1924) and worked an average of 273 days, the number of fatal accidents was 149, or 11 more than in 1924, with a fatality rate of 1.78 per 1,000 300-day workers as compared to 1.63, while the number of nonfatal injuries was 14,165, or 4.1 per cent less than in 1924, with a rate of 169.67 as compared to 175.03 in 1924. The exposure in 1925 was about 1 per cent less than in 1924.

The general improvement in accident-prevention work in quarries, so far as fatalities is concerned, the report declares, is indicated by the downward trend of the death rate when considered in five-year periods. During 1911 to 1915 this rate was 2.19, during the next five years it was 2.10, and during the last five years, including 1925, it was 1.78.

The severity rate is not actually worked out in the report, except for the five-year period 1921 to 1925, but data are given so that a rate may be determined. This rate appears to be 3.57 for the fatal cases and 2.39 for the nonfatal cases in 1925, and 3.27 and 2.26, respectively, in 1924. These rates are computed on an estimated number of days lost (since the report does not show the amount of time lost as the result of individual accidents but does classify the accidents as to degree of disability) by using the standard adopted by the International Association of Industrial Accident Boards and Commissions<sup>1</sup> for fatal and permanent cases—namely, 6,000 days each, 800 days as the average time lost in permanent partial disability cases<sup>2</sup> and 30 days and 4 days as the average time lost in each case of temporary disability lasting, respectively, more than 14 days and from 1 to 14 days.

Of the total number of accidents reported during 1925, 149 (1.04 per cent) resulted in death, 452 (3.16 per cent) caused permanent disability, 2,627 (18.35 per cent) caused temporary disability exceeding 14 days, and 11,086 (77.45 per cent) caused loss of time exceeding the remainder of the day of the accident but not more than 14 days.

The statistics in this report are presented in considerable detail by kind of quarry, by cause of accident, by State, by year, etc., and similar data are also given for the quarries classified as dimension-stone and nondimension-stone quarries. The accident rates for each year since 1916 in the former group of quarries have been consistently lower than in the other group. In 1925 these rates were: Dimension-stone quarries (not including outside plants)—Fatality rate, 1.94 per 1,000 300-day workers, and nonfatality rate, 181; nondimension-stone quarries (not including outside plants)—Fatality rate, 2.59, and nonfatality rate, 193.

<sup>1</sup> United States Bureau of Labor Statistics. Bulletin No. 276: Standardization of industrial accident statistics. Washington, 1920, p. 18.

<sup>2</sup> Reported by the California Industrial Accident Commission.

The following table summarizes the accident experience in all quarries during the years 1924 and 1925:

ACCIDENT EXPERIENCE OF QUARRIES IN THE UNITED STATES DURING 1924 AND 1925

Year	Number employed	Equivalent 300-day workers	Accidents			Frequency rate				Severity rate (per 1,000 days' lost)		
			Fatal	Perma- nent	Tempo- rary	Per 1,000 300- day workers		Per 1,000,000 man-hours		Fatal	Non- fatal	Total
						Fatal	Non- fatal	Fatal	Non- fatal			
1924.....	94,242	84,426	138	470	14,307	1.63	175.03	0.54	58.34	3.27	2.26	5.52
1925.....	91,872	83,487	149	452	13,713	1.78	169.67	.59	56.56	3.57	2.39	5.96

Falls or slides of rock or overburden caused the greatest number of deaths (34 of the 101) to men working inside the pits, while handling rock at the face caused the greatest number of nonfatal accidents (1,639 of the 8,632, or 19 per cent) occurring inside the pits. Flying objects caused the greatest number of nonfatal injuries, 19.9 per cent, which took place outside the pits, while machinery was responsible for 27.1 per cent of the deaths occurring in outside operations.

In 1925 the fatality rate per 1,000 300-day workers was highest in Maryland quarries, being 5.09, and in 1924 it was highest in Connecticut, being 5.29. The nonfatal rate was highest in Massachusetts (341.59) in 1925, and highest in Minnesota (315.09) in 1924.

The report contains a section dealing with the relative hazard of large and small quarries, in which all quarries employing less than 25 workers are placed in the latter grouping. It appears that both the fatal and nonfatal rates were somewhat higher for the small operations than for the large ones. In 1925 the fatality rate per 1,000 300-day workers in small quarries was 3.65, and in large quarries it was 1.97, while the nonfatal injury rate was, respectively, 245.29 and 183.55.

### Comparative Accident Experience of Large Group of Plants in 1925 and 1926

THE accident experience of 1,725 of the plants holding membership in the National Safety Council is set forth in an article in the National Safety News for September, 1927. This represents an increase of 494 (40 per cent) over the number reporting in 1925. The plants are classified into 16 industrial groups or sections. The accident frequency rate (per 1,000,000 hours' exposure) of all plants reporting is shown to be 31.87 as compared with 30.6 in 1925, while the severity rate (days lost per 1,000 hours' exposure) was 2.50 and 2.02, respectively. One out of every 13 workers suffered a lost-time injury, and the average time lost per injury was 78 days.

The experience of 687 plants reporting both in 1925 and 1926 shows a reduction in frequency and severity rates, the former being lowered more than 13 per cent and the latter about 11 per cent.

The following table gives the data for these 687 plants, classified by industrial group, for 1925 and 1926.

ACCIDENT EXPERIENCE OF 687 PLANTS BELONGING TO THE NATIONAL SAFETY COUNCIL, 1925 AND 1926

Industry group	Number of plants	Total hours worked		Lost-time accidents	
		1925	1926	1925	1926
Automotive.....	56	193, 170, 392	292, 250, 161	6, 012	5, 789
Cement.....	114	95, 164, 043	91, 246, 572	2, 480	2, 079
Chemical.....	52	65, 660, 528	63, 908, 310	1, 763	1, 688
Construction.....	30	22, 707, 156	26, 810, 713	1, 549	1, 860
Metals.....	172	366, 980, 532	420, 892, 130	14, 282	14, 479
Packers and tanners.....	9	10, 297, 413	10, 244, 703	279	694
Paper and pulp.....	79	83, 444, 770	91, 511, 224	2, 957	2, 926
Petroleum.....	14	202, 568, 652	216, 977, 595	5, 230	5, 554
Power press.....	66	134, 925, 769	158, 204, 457	3, 743	3, 335
Quarry.....	11	9, 140, 291	9, 590, 566	472	467
Textile.....	24	62, 459, 152	62, 875, 420	832	836
Woodworking.....	60	38, 070, 771	37, 260, 639	1, 589	1, 418
Total.....	687	1, 284, 589, 469	1, 481, 772, 490	41, 188	41, 126

Industry group	Days lost		Accident frequency rates (per 1,000,000 hours' exposure)		Accident severity rates (per 1,000 hours' exposure)	
	1925	1926	1925	1926	1925	1926
Automotive.....	305, 578	329, 953	31.1	19.8	1.58	1.13
Cement.....	486, 385	349, 856	26.0	22.8	5.11	3.83
Chemical.....	206, 667	204, 524	26.9	26.4	3.15	3.20
Construction.....	165, 840	187, 962	68.2	69.4	7.31	7.01
Metals.....	797, 838	862, 537	38.9	34.4	2.17	2.05
Packers and tanners.....	12, 039	29, 180	27.1	67.8	1.17	2.85
Paper and pulp.....	158, 246	180, 105	35.4	32.0	1.90	1.97
Petroleum.....	445, 494	455, 865	25.8	25.6	2.20	2.10
Power press.....	172, 539	204, 229	27.8	21.1	1.28	1.29
Quarry.....	66, 289	71, 916	51.6	48.7	7.25	7.50
Textile.....	26, 106	33, 011	13.3	13.3	.42	.53
Woodworking.....	88, 647	103, 619	41.7	38.1	2.42	2.78
Total.....	1 2, 923, 368	3, 012, 757	32.1	27.7	2.28	2.03

<sup>1</sup> This is not the sum of the items but is as appears in the original.

### Penalty the American Nation Pays for Speed<sup>1</sup>

ONE out of every 200 persons living in the United States will be permanently disabled by industrial accidents this year—a total of more than a half million. Nearly another million other men and women will sustain disabling accidents which will necessitate absence from work four weeks or more. Disease and accidents of everyday life add another million of handicapped individuals. This is the penalty the nation pays for pursuing its "speed-mad" way. Each year for the last 50 the industrial demands of this Nation have resulted in a far greater number of disabled men than the total list of casualties from the World War.

These facts prove beyond doubt that we are a wasteful nation and have done little toward conserving our man power. The nation is on the eve of a great change. Before long a certain handicap, such

<sup>1</sup> By Dr. Harry E. Mock, Gorgas Memorial Institute; reprinted from the Rehabilitation Review, New York, April, 1927, p. 157.

as heart disease, the loss of an arm or leg, will not bar a man from a job. It is estimated that 90 per cent of the men and women injured in industry can be returned to useful employment by a careful selection of their occupations.

Inadequate convalescent care is the shame of industrial centers to-day. No provision has been made in our scheme of things for proper convalescent care after hospital treatment is completed. Intimately tied up with the provision for convalescents is vocational training when necessary. For it happens in many instances that a man or woman is permanently incapacitated to earn a living in the accustomed way, and they need new training to qualify them for work which they are physically fitted to do. This thought has caused the medical profession to link hands with the educator and with the personnel managers of industry to the end that all handicapped individuals may once more become productive units of society.

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### Industrial Accidents to Women in New Jersey, Ohio, and Wisconsin

**B**ASED partly upon workmen's compensation records for the year ending June 30, 1920, and partly upon interviews with women who had been left with permanent injuries as a result of accidents, the United States Women's Bureau has recently completed a study (Bul. No. 60) of industrial accidents to women in New Jersey, Ohio, and Wisconsin.

Three sections of the report are given over to an analysis of work accidents to women from the points of view of legislation, administration, and prevention in the States under consideration. Another section presents some of the interviews with the permanently disabled women, indicating in a general way the need for legislative and administrative changes and for the promotion of preventive work in connection with accidents to women. A total of 3,285 cases were covered (1,096 in New Jersey, 1,545 in Ohio, and 644 in Wisconsin), and 385 out of 536 women reported as permanently injured (according to State records) were interviewed personally in an effort to determine the results of the industrial accidents with special reference to the adjustment of the injured workers to their preaccident status.

From this latter standpoint it is shown that 40, or about one-tenth of the women interviewed, were unable to return to any work, and 40.8 per cent could not return to the work they had formerly done. Of the 338 who definitely returned to industry, 95 (or 28.1 per cent) never equalled their former wages, while 243 (or 71.9 per cent) received the same or higher earnings than before their accident. About 80 per cent of these workers returned to their former employers, while 18.6 per cent were soon laid off or had to quit on account of their disability. Of the women interviewed 47.8 per cent were responsible for the support of others in addition to themselves.

In presenting a general picture of the ways in which women are being injured, it is of interest to show the nature of the injury as related to the cause of the accident. Machinery, which was the cause in 46.4 per cent of the cases, was responsible for 60.6 per cent of the cuts and lacerations, for 26.3 per cent of the



bruises and contusions, for 85.3 per cent of the crushing injuries, for 10.6 per cent of the sprains and strains, for 95.6 per cent of the amputations, and for 37.8 per cent of the punctures. Metal-working machinery, which caused 40.3 per cent of the machine accidents, caused over one-half of the total traumatic amputations and almost one-fourth of the cuts and lacerations. Textile machinery, second in the machine group in responsibility for accidents, was an important factor in injuries in the nature of cuts, lacerations, and punctures; and paper machinery, which was third, gave rise to accidents resulting largely in crushing injuries. Falls of persons were numerically second in seriousness to machine accidents, causing 20.8 per cent of the cases. Besides being the most frequent cause of dislocations and concussions, they were responsible for 61.7 per cent of the sprains and strains, for 61.5 per cent of the fractures, and for 37.6 per cent of the bruises and contusions. The handling of objects, the third large cause of accidents, 15 per cent of the total number being incurred in this way, caused 37.8 per cent of the punctures, 21.9 per cent of the sprains and strains, and 21 per cent of the cuts and lacerations.

The total number of cases included in the report, as classified by the author, covers 15 fatal, 803 permanent disabilities, and 2,467 temporary disabilities. Ninety-two women were compensated for occupational diseases and 11 for hernia. Slightly more than one-half of the permanent injuries involved one finger, dismemberment or loss of use resulting; and 2,243, or 68.3 per cent of the total number of injuries, were to the upper extremities. Of 3,263 cases, 676, or 20.7 per cent, were complicated by infection. Three of these cases resulted in death and 148 in permanent disability.

The report indicates quite a variation in the length of time required for recovery—that is, the healing period. Manufacturing industries, employing 26.8 per cent of the women exposed to hazard, caused 77.7 per cent of the total injuries, 86.3 per cent of the cases resulting in permanent disability, and 74.9 per cent of the cases resulting in temporary disability. Of the total of 3,253 women for whom the healing period was reported, 1,344 (41.3 per cent) required a healing period of 4 weeks or longer, and of that number 269 (20 per cent) required a healing period of 12 weeks or longer. Of these 269 cases, 26.4 per cent were in the services grouped as clerical, professional, etc., in which 61.5 per cent of the women were employed. Textiles, which comprised 6.6 per cent of the total number of women employed, accounted for 8.5 per cent of the 269 cases requiring a healing period of 12 weeks or longer; trade, which comprised 8.8 per cent of the total number, was responsible for 8.6 per cent with such a healing period; food and kindred products, which comprised 3.4 per cent, for 8.2 per cent; laundry work, which comprised 0.9 per cent, for 4.5 per cent; iron and steel, which comprised 1.3 per cent, for 5.2 per cent; and clothing, which comprised 5 per cent of all the workers, for 5.2 per cent with the long healing period.

The table following, arranged from the report, shows the frequency rates per 1,000,000 hours' exposure, and also the severity rates, in terms of days lost per 1,000 hours' exposure, for death and permanent disability cases, by industry groups.

NUMBER EMPLOYED AND ACCIDENT RATES FOR WOMEN INJURED IN INDUSTRY IN NEW JERSEY, OHIO, AND WISCONSIN, FOR YEAR ENDING JUNE 30, 1920, BY INDUSTRY GROUPS

Industry group	Number employed	Accidents				Accident frequency rates (per 1,000,000 man-hours)				Estimated number of days lost		Accident severity rates (per 1,000 man-hours) <sup>2</sup>	
		Fatal	Perma- nent disa- bility	Tempo- rary disa- bility	Total	Fatal	Perma- nent disa- bility	Tempo- rary disa- bility	Total	Fatal	Perma- nent disa- bility	Fatal	Perma- nent disa- bility
Manufacturing:													
Agricultural imple- ments.....	126	1	4	5	2.65	10.58	13.23			600		1.59	
Automobiles.....	3,213	21	61	82	2.18	6.33	8.51			11,280		1.17	
Buttons (composi- tion).....	617	6	12	18	3.24	6.48	9.72			2,250		1.22	
Chemicals and allied products.....	4,266	37	49	86	2.89	3.83	6.72			15,252		1.19	
Clay, glass, and stone products.....	7,125	24	73	97	1.12	3.42	4.54			8,958		.42	
Clothing (including dressmaking).....	38,146	29	160	189	.25	1.40	1.65			12,840		.11	
Electrical supplies.....	8,995	51	109	160	1.89	4.04	5.93			26,640		.99	
Food and kindred products.....	26,094	1	66	232	0.01	.84	2.96	3.82	6,000	30,756	0.08	.39	
Iron and steel.....	10,263	102	178	280	3.31	5.78	9.09			43,860		1.42	
Laundry work, clean- ing, and dyeing.....	6,824	1	25	61	.05	1.22	2.98	4.25	6,000	31,128	.29	1.52	
Leather products.....	10,607	25	83	108	.79	2.61	3.39			12,750		.40	
Metal goods.....	5,295	5	77	132	.31	4.85	8.31	13.47	30,000	35,460	1.89	2.23	
Paper boxes.....	1,793	24	69	93	4.46	12.83	17.29			14,160		2.63	
Paper and pulp.....	2,750	1	9	31	.12	1.09	3.76	4.97	6,000	6,762	.73	.82	
Printing and publish- ing.....	5,357	26	76	102	1.62	4.73	6.35			10,140		.63	
Rubber.....	7,688	12	79	91	.52	3.43	3.95			4,728		.20	
Straw.....	282		4	4		4.73	4.73						
Textiles.....	50,440	56	267	323	.37	1.76	2.13			32,808		.22	
Wagons and car- riages.....	157	1	1	2	2.12	2.12	4.25			3,000		.64	
Wood products.....	4,597	17	66	83	1.23	4.79	6.02			8,400		.61	
Miscellaneous.....	8,864	1	83	92	.04	3.12	3.46	6.62	6,000	46,670	.23	1.76	
Clerical and profes- sional.....	467,355	5	75	415	(3)	.05	.30	3.35	30,000	51,546	.02	.04	
Transportation.....	21,547	3	64	67		.05	.99	1.04		2,700		.04	
Agriculture, except farm laborers.....	536	1	3	4	.62	1.87	2.49			960		.60	
Trade.....	66,901	1	31	133	(3)	.15	.66	.82	6,000	21,396	.03	.11	
Total.....	759,838	15	802	2,454	3,271	(3)	.35	1.08	1.43	90,000	432,344	.04	.19

<sup>1</sup>Complete data on 14 cases not available.

<sup>2</sup>The number of days lost is given in the report in a table showing an employment of 748,395 and no accident record, but the severity rates have been figured on the basis of 759,838 employed, taken from a table in the report which also gives the number of accidents but does not give the number of days lost. The discrepancy which results in the rates affects only 5 industries and in no case amounts to more than 0.37. Rates for temporary disabilities are not given because of insufficient data.

<sup>3</sup>Less than 0.01.

The total compensation paid in 3,285 cases was \$329,490, or an average of \$100.30 per case. The 15 fatal cases received \$21,124, or an average of \$1,408.27 each, and the 803 permanent disability cases received \$228,088, or an average of \$284.04 each. In 3,225 cases the ratio of compensation to estimated amount of earnings or wages lost was 20.4; in 15 fatal cases it was 8.42, in 746 permanent disability cases it was 18.19, and in 2,464 temporary cases it was 58.07. Just over one-half of the women reporting wages were receiving less than \$15 per week, the median wage being \$14.95, and of the total number slightly less than one-half were under 25 years of age.

The following data taken from the summary of facts contained in the report include the essential details (some of which have already been noted) brought out by the investigation:

Cause of accident:	Per cent	Permanent disability cases:	Per cent
Machinery.....	46.4	By States—	
Falls of persons.....	21.0	New Jersey.....	29.1
Handling of objects.....	15.0	Ohio.....	8.5
Other causes.....	17.6	Wisconsin.....	13.9
Nature of injury:		Age of women—	
All injuries—		Under 20 years.....	28.8
Cut, laceration, puncture.....	32.9	20 and under 40 years.....	52.3
Bruise, contusion, crush.....	27.5	40 and under 60 years.....	16.2
Sprain, strain.....	11.7	60 years and over.....	2.7
Dislocation, fracture.....	10.4	Cases interviewed (385):	
Amputation.....	7.7	Nativity—	
Burn, scald, crush and burn.....	4.7	Native-born white.....	78.2
Permanent disability cases—		Native-born negro.....	6.2
Cut, laceration, puncture.....	23.5	Foreign born.....	15.6
Bruise, contusion, crush.....	22.3	Education—	
Sprain, strain.....	4.8	Native born—had finished eighth grade or attended high school.....	36.3
Dislocation, fracture.....	10.2	Foreign born—	
Amputation.....	30.4	Could speak English.....	88.3
Burn, scald, crush and burn.....	3.4	Could read English.....	58.3
Location of injury:		Dependents.....	47.8
Upper extremities.....	68.3	Sole support.....	12.6
Lower extremities.....	15.0	Contributed definitely, not sole support.....	35.2
Trunk.....	12.5	Experience in accident occupation—	
Head.....	4.1	Less than 6 months.....	35.6
Healing period of at least 12 weeks in relation to age:		Less than 1 month.....	14.5
All injuries—		Less than 1 week.....	6.0
Under 20 years of age.....	3.9	Industrial rehabilitation—	
20 and under 40 years of age.....	7.7	Disabled for former work.....	40.8
40 and under 60 years of age.....	14.0	Disabled for all available work.....	10.4
60 years of age and over.....	24.3	Of the 338 who definitely returned to industry—	
Permanent disability cases—		Returned to former employer.....	79.6
Under 20 years of age.....	11.6	Soon laid off or had to quit.....	18.6
20 and under 40 years of age.....	20.8	Never since accident had earned so much as before.....	28.1
40 and under 60 years of age.....	33.1		
60 years of age and over.....	50.0		

The report states that—

Hazard is so inherent a part of industry, as at present constituted, that various occupations have each a predictable risk, and the cost to the injured employee of the accidents which occur—the wage loss, medical cost, and expense of restoration of earning capacity—is as logically a direct expense of production as is spoiled material or damaged equipment. Furthermore, the supremely important subject of accident prevention should receive unremitting attention. Thorough study of industrial hazard and scientific analysis of causes of accident mean much in a reduction of casualties incurred by men and women while engaged in gainful pursuits.

### Penalties for Violation of Safety Orders

THE law of Wisconsin provides that an employer shall be liable for 15 per cent increased compensation for injuries sustained by his employee under hazards outlawed by the safety orders of the commission. Likewise the compensation payable to an employee or his dependents is subject to a reduction of 15 per cent for willful failure to use safety devices provided by the employer, or for willful failure to obey any reasonable rule adopted by the employer for the safety of the employee, or for injury resulting from intoxication.

The frequency of violations of such orders by both employers and employees and the amount of increased and decreased compensation for the year ended December 31, 1926, is shown in tables appearing in the July 1, 1927, issue of Wisconsin Labor Statistics, issued by the Industrial Commission of Wisconsin.

Out of the total of 22,177 cases closed during the year there were 539 cases in which employers paid the increased benefits. Recovery of increased benefits was most frequent from violations of safety orders governing power presses (118),<sup>1</sup> circular saws (96), solid scaffolds (46), and gears (40). These comprised approximately three-fifths of the total number of violations. The amount of normal compensation paid in these cases was \$315,479.71, and the increased compensation incurred amounted to \$47,851.03.

During the same period there were only 12 employees whose compensation was reduced for violation of safety orders or rules, 6 of these being for failure to use guards on machinery and 6 for intoxication at the time of injury. The amount of normal indemnity in these cases was reduced from \$4,568.34 to \$3,891.79.

The frequency of the violations in the two classes are in the proportion of 45 to 1, which is quite a contrast when it is considered that the employees outnumber the employers many times.

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### Coal-Mine Accidents in Illinois in 1926

THE 921 coal mines of Illinois, employing 77,732 men, produced a total of 69,813,255 tons of coal in 1926, as shown by the forty-fifth coal report recently issued by the State department of mines and minerals. The shipping mines, numbering 244, or only 26.5 per cent of all the coal mines, but employing 94.6 per cent of the men, produced 97.2 per cent of the coal. These mines worked an average of 155 days each. The average annual earnings of 14,197 pick miners was \$1,022, while 34,926 machine miners averaged \$1,406 during the year.

In 1926 there were 165 (153 underground) fatal accidents. This is 1 fatality to each 423,111 tons of coal mined, or a rate of 2.36 deaths per 1,000,000 tons produced. During the preceding 18-month period the rate was 1.8. As usual, falls of roof and sides claimed the greatest number of casualties, 55.6 per cent of the underground fatalities with haulage second, killing 25.5 per cent.

There were 9,012 nonfatal accidents. In 381 of them the men did not return to work, and the number of days lost by those who did

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<sup>1</sup>The order relating to power presses was violated once by 45 employers, twice by 13 employers, three times by 6 employers, four times by 3 employers, five times by 2 employers, and seven times by 1 employer.

return to work was 243,816, or an average of 28 days each. For each million man-hours worked there were 75.68 nonfatal accidents, indicating severity rate of 2.05 per thousand man-hours. The following table gives the frequency and severity rates in greater detail:

TABLE 1.—ACCIDENT FREQUENCY AND SEVERITY RATES IN ILLINOIS COAL MINES IN 1926

Item	Fatal cases	Nonfatal cases	Total
Frequency rate (per 1,000,000 man-hours' exposure).....	1.39	75.68	77.06
Severity rate (days lost per 1,000 man-hours' exposure) <sup>1</sup> .....	<sup>2</sup> 8.31	<sup>3</sup> 2.05	<sup>4</sup> 10.36

<sup>1</sup> It is not clear whether the days lost, given in the report (p. 85), are based on the standard allowance as adopted by the International Association of Industrial Accident Boards and Commissions and published in U. S. Bureau of Labor Statistics Bul. No. 276, p. 18.

<sup>2</sup> The standard allowance of 6,000 days lost for each fatality is used in determining this rate. (See note 1.)

<sup>3</sup> Based on 8,631 injured men who returned to work.

<sup>4</sup> Based on 8,796 accidents, 381 in which the men did not return to work not being included.

The report contains a table comparing the accident record for the 9½-year period ending December 31, 1926, during which compensation has been compulsory, with the preceding 5-year period during which compensation was elective, and also the 30-year period, 1883 to 1912, when there was no compensation act in force. It appears from this table, a summary of which is given below, that a more favorable showing in average annual number of accidents, average number of tons mined per accident, average number of men employed to each accident, and the accident rate per 1,000 employees, was made during the years preceding those in which compensation has been compulsory.

TABLE 2.—COMPARISON OF AVERAGE ANNUAL ACCIDENT RECORD IN ILLINOIS COAL MINES DURING PERIOD IN WHICH COMPENSATION HAS BEEN COMPULSORY WITH AVERAGE ANNUAL RECORD FOR CERTAIN PRECEDING PERIODS

Period	Average per year							
	Number employed	Number injured <sup>1</sup>	Number employed per injury	Number of tons mined per injury	Accident rate per 1,000 employed	Men not returned to work		Days lost by men returned
						Number	Per cent of injured	
9½ years of compulsory compensation, 1918 to 1926.....	87,059	3,354	26	22,070	38.5	482	14.4	60
5 years of elective compensation, 1913 to 1917.....	79,186	1,210	65	53,377	15.3	159	13.1	60
30 years preceding compensation, 1883 to 1912.....	44,461	470	96	55,893	10.6			

<sup>1</sup> Including only those losing 30 or more days each.

### Injuries to Minors in Ohio in 1926

A SPECIAL statistical report on injuries to workers under 18 years of age, drawn from the records of the Industrial Commission of Ohio for the year 1926, has just been issued by the division of safety and hygiene of the commission as a part of Special Bulletin No. 1. This report, it is stated, includes the first comprehensive

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and exhaustive studies of industrial accidents in Ohio. During 18 months of 1926 and 1927 nearly 2,000 plants and construction operations were visited by safety engineers of the commission, who were responsible for recommending mechanical safeguards and assisting in the safety work of employees and who addressed groups of workers and employers in an effort to do everything possible to reduce accidents.

The report contains very little explanatory text. The tabular material covers claims filed during 1926. During the period covered there were 3,692 cases, 3,139 being males and 553 being females. Sixteen of the males were married and one was divorced; six of the girls were married. There were 6 fatalities and 38 permanent injuries among the boys; one girl was permanently disabled. A total of 687 cases, or 18.6 per cent of all cases, developed blood poisoning.

The report shows that a total of 87,169 days was lost as a result of these injuries to minors. Nearly 24 per cent was due to 1,346 cases of temporary disability, 34.9 per cent to 39 cases of permanent disability, and 41.3 per cent to 6 fatal cases, all these estimates being based upon the standard weighting adopted by the International Association of Industrial Accident Boards and Commissions.<sup>1</sup> In each of 716 of the temporary disability cases more than seven days were lost, and 63.1 per cent of these temporary cases caused no time loss. More than one-fifth of all the time loss was due to blood poisoning. The largest proportion of all accidents reported, about 25 per cent, occurred in metal manufacturing, but 70.2 per cent of these caused no time loss.

Data as to accident frequency and severity are not given in the report and can not be determined from the tables presented, since the number of employees or the hours of exposure is not given.

Handling objects caused 839 (22.7 per cent) of the accidents represented by the claims filed, with machinery a close second, with 831 cases. The largest number of days lost, 21,034 (24.1 per cent) was due to motor vehicles, in which cause group 3 of the fatal cases are found, accounting for 18,000 of these days lost.

The report classifies the accidents and days lost by industry and cause, by part of machine, manner of occurrence, kind of machine, and by degree of disability.

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### Occupational Disease Claims in Ohio, 1921 to 1926

**A** REPORT on occupational diseases for which compensation was paid in Ohio, from July 1, 1921, to January 1, 1927, based on claims filed with the industrial commission of that State, has recently been prepared by the division of safety and hygiene of the commission and issued as a part of Special Bulletin No. 1. During the five and one-half years covered by the report, 4,443 claims were filed, and 336 were disallowed. The tabular matter relating to the distribution of these cases by industry, cause, etc., pertains to the total number filed, while the statement as to compensation cost necessarily relates to the number of claims allowed, which according to the report appears to be 2,093 as this number when added to the

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<sup>1</sup> See U. S. Bureau of Labor Statistics Bul. No. 276, p. 18.

number of claims disallowed (336), that of claims in which there was no time loss (1,380), and that of claims with time loss of seven days and under (634), makes the total of 4,443 claims filed.

A time loss of 760,069 days is noted, including the time lost by 101 fatal cases and 6 permanent disability cases. Temporary disability of more than seven days occurred in 2,322 cases (52.3 per cent), the total time loss being 134,471, or 17.7 per cent of the total time loss. About 3,000 of these occupational disease claims involved affections of the skin, dermatitis being responsible for 2,890, or 65 per cent, of the total claims, with a time loss amounting to 11 per cent of the total time lost in all occupational disease cases. These cases of dermatitis were due to the action of various industrial elements or compounds upon the skin, including oils, cutting compounds, gases, dust, liquids, fumes, or vapors. Industrial poisoning, including that by brass, zinc, lead, mercury, phosphorus, arsenic, anilin, wood alcohol, etc., accounted for 1,092 claims (24.6 per cent) and was responsible for a time loss of 345,519 days, or 45.5 per cent of the total time loss. Metal-goods manufacturing caused 25.7 per cent of the cases of occupational disease and 23.9 per cent of the total time loss.

The industrial commission awarded a total of \$369,942 in settlement of compensation claims. Of this amount, \$178,743 was paid in death claims, \$2,890 in permanent disability claims, and \$188,309 (51 per cent) in claims where the temporary disability lasted beyond the statutory period of seven days. Nearly 76 per cent of the total compensation amount was paid for industrial poisoning, with lead poisoning taking the largest amount, \$241,760, or 86.3 per cent of the compensation for industrial poisoning cases. Of the total compensation awarded, those working in metal-goods manufacturing received a larger sum than any other industry, the amount being \$65,117, or 17.6 per cent; and here again lead poisoning was the cause resulting in the largest compensation, requiring \$44,990, or 12.1 per cent of the total allowed and 69.1 per cent of the amount awarded to this particular industry group.

### Mining Accidents in Tennessee in 1926<sup>1</sup>

**I**N THE coal mines of Tennessee in 1926 there were 49 fatal accidents, 27 of which were caused by an explosion in one mine, and 232 nonfatal injuries. In mines other than coal there were 9 fatal and 146 nonfatal accidents. This gives a total of 436 mining accidents, 58 of which resulted fatally. The following statement, summarizing information for the years 1925 and 1926, computed and gleaned from the report, covers coal mines only, similar data not being complete for other metal mines:

	1925	1926
Number of employees.....	8, 951	8, 374
Number of days mines operated.....	202	234
Total man-hour exposure.....	18, 081, 020	19, 595, 160
Number of accidents.....		281
Accident frequency rate (per million man-hours).....		14. 3
Number of fatalities.....	27	49
Fatality rate (per million man-hours).....	1. 5	2. 5

<sup>1</sup> Tennessee. Department of Labor. Division of Mines. Thirty-second annual report of the mineral resources of Tennessee, Nashville, 1927.

The increase in the fatality rate in 1926, it is explained, was due to an explosion in one mine which resulted in the death of 27 men, 13 of whom were miners and 6 drivers. The total production of coal was 6,089,162 short tons, giving a fatality rate of 8.05 per million tons mined. The report indicates that the average daily wage paid to employees in coal mines was \$3.33.



# WORKMEN'S COMPENSATION AND SOCIAL INSURANCE

## Recent Compensation Reports

### Hawaii

THE industrial accident board of the city and county of Honolulu has recently presented its reports for the years ending June 30, 1925, and June 30, 1926.

During the year ending June 30, 1925, 4,311 accidents were reported to the board, of which 25 were fatal. There were 33 nationalities represented, 1,156 of the injured being Japanese, 672 Filipinos, 647 Portuguese, 448 American, and 440 Hawaiian, the others following in smaller groups. Of the persons involved, 4,256 were males and 55 females; 2,323 were married and 1,988 were single.

Accidents causing disability of less than one day numbered 1,103, and those lasting less than one week, 1,689. These were noncompensable except as far as medical, etc., aid was involved. Of the remaining cases, 1,435 caused only temporary total disability, for which compensation amounting to \$50,436 was paid. Medical and hospital expenses for this group and for those not receiving compensation because disabled less than one week, amounted to \$67,716, or a total for the 4,227 accidents of \$118,152. Permanent partial disability, caused by amputation or loss of use of different members of the body, succeeded the period of total disability in 59 cases. Payments for the total disability periods in these cases aggregated \$5,706, and for the permanent partial disabilities, \$35,190. Medical and hospital service brought the total benefits for these cases up to \$47,381.

The 25 fatal cases called for compensation amounting to \$42,240 and funeral expenses of \$2,345. Medical and hospital expenses in the sum of \$922 made the total benefits for this class \$45,507.

The total compensation benefits for the year were \$211,039.

The board emphasized the need of Territorial legislation in relation to compulsory safety devices.

The report for the year ended June 30, 1926, shows 4,511 accidents reported during the year, 3,041 of them being noncompensable except so far as medical, etc., aid was involved, and of the remaining 1,470 cases, 1,362 caused only temporary total disability, 85 were succeeded by permanent partial disability, and 23 were fatal.

There were 31 nationalities represented, 1,327 of the injured being Japanese, 844 Filipinos, 643 Portuguese, 406 American, and 402 Hawaiian, the others following in smaller groups. Of the persons injured 4,448 were males and 63 females; 2,382 were married and 2,129 were single.

Compensation in the amount of \$47,385 was paid on account of the 1,362 cases causing temporary total disability, and medical, etc., aid

for this group and for those not receiving compensation because disabled less than one week amounted to \$59,266, or a total for the 4,403 accidents of \$106,651. Payments for the total-disability period in the 85 cases that were succeeded by permanent partial disability aggregated \$10,422 and for permanent partial disabilities \$43,023. Medical, etc., aid brought up the total benefits for these cases to \$63,217.

The 23 fatal cases called for \$11,864 in compensation, \$978 funeral expenses, and \$1,022 medical and hospital expense, a total of \$13,864.

The total compensation benefits for the year were \$183,732.

The majority of the sugar and pineapple plantations and canneries maintain their own medical staff and hospitals for the care of their employees and do not report to the board the cost of the hospital and medical services for each individual case of minor accidents. The foregoing figures therefore do not include costs of this kind.

#### Oklahoma

THE Industrial Commission of Oklahoma in its eleventh annual report covers the year September 1, 1925, to August 31, 1926. Its summary statement shows 49,837 accidents reported during that period as compared with 48,699 reported in 1925, an increase of 1,138. This is the smallest annual increase in accidents reported by the commission since 1921 and is attributed to three causes—namely, the safety work that is being conducted in many of the industries covered by the act, the campaign of education to secure prompt reports of accidents, and cooperation in providing prompt medical attention.

There were 50,962 cases finally disposed of and actually closed out during the year. This includes injuries which may have happened prior to September 1, 1925, but in which the extent of disability could not be determined until this year.

The three causes producing the greatest number of accidents were stepping on or striking against objects (7,568), falling objects from elevation (4,530), and lifting heavy objects (4,238). Not all the injuries reported have been permanently classified as to nature and extent. However, 270 cases of a permanent nature, either total or partial, have been determined, of which 33 were eye injuries in which the vision was totally destroyed. The aggregate time lost in 45,929 cases in which employees were found entitled to compensation was 854,584 man-days. The compensation paid aggregated \$1,107,997 and medical aid \$279,630, making total benefits \$1,387,627.

The location of the injuries caused by accidents is given in much detail, as are also the number of accidents in the various industries, percentage of disabilities, time lost, and compensation paid, classified by causes. The largest number of accidents occurred in the oil industry (20,279), oil-well drilling being responsible for 13,043 of them. Accidents in mining and quarrying came next, with 8,977, and building, erecting, and demolishing followed, with 3,429 accidents. The number of accidents does not indicate their seriousness, oil-well drilling being chargeable with the largest amount of lost time (218,553 days) and of compensation and medical aid cost (\$394,173), far exceeding the totals for any other occupation.

## German Unemployment Insurance Act<sup>1</sup>

ON JULY 16, 1927, the Reichstag passed an act by which the present system of unemployment relief out of public funds is replaced by a system of compulsory insurance of workmen and employees against unemployment. At the same time the public employment bureaus operated at present by the communities under State supervision are taken over by the Reich. The act, which is headed "Law concerning mediation of employment and unemployment insurance," came into force October 1, 1927.

The provisions of the act are, summarized, as follows:

### Administrative Authorities

THERE shall be established a Federal Bureau for Employment and Unemployment Insurance, which shall absorb the Federal employment bureau, the present central official employment office. This new bureau is a self-governing body, except in so far as it is placed under the supervision of the Federal Minister of Labor, and the Federal Government has reserved the right to approve its budget, service regulations, the formation of new wage classes, and certain other powers. The organs of self-government are boards of executives composed for each section of representatives in equal numbers of workers, including at least one employee, employers, and public bodies (State and communal). The representatives of public bodies, however, have no voice in the settlement of questions relating to unemployment insurance. This field is reserved entirely to workers and employers to insure strict adherence to the principle of self-government.

The duties of the authorities include to a large extent measures to prevent unemployment. Aside from finding work for the unemployed, traveling expenses may be paid to workmen and employees being transferred to other places out of funds of the Federal bureau, also working equipment and eventually a limited contribution to the wages or salaries. The State labor offices may promote emergency work for the unemployed out of the bureau's funds, by way of loans or subsidies which, however, shall not be given to private enterprises carrying on an occupation for profit.

### Persons Subject to Insurance

THE liability to unemployment insurance applies to all classes of workers liable to compulsory health insurance (the wage limit being from October 1, 1927, 3,600 reichsmarks,<sup>2</sup> at present 2,700 reichsmarks a year), to employees liable to compulsory old-age and sickness insurance (limited to persons earning a salary of up to 6,000 reichsmarks a year), and to the crews of vessels. Certain exemptions are made with regard to persons employed in forestry and inland or coast fishery who themselves live on the proceeds of their work and are in the employ of another person ordinarily less than six months a year; also to workers subject to long-term labor contracts and apprentices bound by an apprenticeship of no less than two years.

<sup>1</sup>Summary furnished by United States Consul General C. B. Hurst, Berlin, Aug. 6, 1927.

<sup>2</sup>Reichsmark = 23.8 cents.

## Premiums and Benefits

THE unemployment insurance premiums are payable jointly with the health insurance fees, or, if a person is not liable to health insurance, they must be paid to the local health insurance office under whose jurisdiction the insured would come in case of liability. The cost of the premiums, borne in equal proportion by workers and employers, will be fixed by the executive board of the Federal Bureau for Employment and Unemployment Insurance. The rate shall not exceed 3 per cent of the wages or salaries forming the basis of calculation—namely: (1) For persons liable to compulsory health insurance, the basic wages or salaries set for the calculation of health insurance premiums; (2) for employees not liable to health, but liable to old-age and sickness insurance (i. e., persons receiving a salary exceeding 3,600 reichsmarks, but not 6,000 reichsmarks a year), and persons having insured themselves voluntarily, the amount of salary of 3,600 reichsmarks; (3) for crews of vessels not liable to health insurance, the average wages or salaries paid to members of the respective class of workers to which the insured belongs.

The health insurance offices turn over the premiums collected to the State labor offices. The premiums include a share for the States and a share for the Reich. The latter shall be applied to cover deficits of any overburdened State labor district and to create an emergency fund which is to be kept up in an amount equal to the sum total of benefits required for 600,000 unemployed during a three months' period of unemployment.

The benefit is fixed according to the wages or salaries received by the unemployed and embraces the benefit proper and a family allowance. Wages and salaries are divided into 11 classes, and for each wage class a standard wage or salary is set, of which a certain percentage constitutes the benefit. The family allowance amounts to 5 per cent of the standard wage or salary. The benefit is paid from the eighth day after the authorities are notified of a person's unemployment; under certain conditions it may be paid earlier. The claim to benefit arises after 26 weeks' payment of premiums, and payment of the benefit likewise is limited to 26 weeks. The benefit is granted if the applicant is fit and willing to work, if he has lost his job without his own fault, or at the least resigned it for a just reason. The benefit is not granted during strikes and lockouts, except under certain conditions, in case of indirect participation, to avoid special hardship. After the expiration of the 26 weeks' benefit the beneficiary falls under the category of the "Ausgesteuerte"—i. e., persons who after having had their full allowance from the insurance funds are turned over to the care of the so-called "Krisenfürsorge," or emergency relief, in times of economic crises, the cost of which is borne by the Reich and communities at the ratio of 4 to 1. This relief is granted also to certain unemployed who have not yet acquired a full claim to benefit, if they are deserving. The cost of this relief is the only expenditure which the Reich and the communities will in future incur through unemployment.

The obligation to accept any work assigned to an unemployed person is maintained only with regard to persons below 21 years of age and beneficiaries of the "crisis" relief, but other beneficiaries

must after nine weeks' payment of benefit accept any work allotted to them, however uncongenial or unfamiliar.

### Short-time Workers

**S**HORT-TIME workers receiving insufficient or irregular wages may be granted benefit out of the Federal bureau's funds, but the amount of benefit plus the wages received shall not exceed five-sixths of the full wages to which the beneficiary would be entitled under normal conditions.

The principal advantage of the insurance system over the system of unemployment relief out of public funds lies in the fact that the workmen and employees, through their contributions, acquire a legal claim to support during a period of unemployment, and that the benefit is fixed in proportion to the wages and salaries normally paid the unemployed.

In the following table it is shown how the system of wage classes and benefits works out:

#### WAGE CLASSES AND BENEFITS UNDER GERMAN UNEMPLOYMENT INSURANCE LAW

[Reichsmark = 23.8 cents]

Weekly wage or salary class	Standard wage or salary	Benefit (in per cent of standard wage)	
		Basic benefit	Total benefit, including family allowance <sup>1</sup>
	<i>Reichsmarks</i>		
10 reichsmarks and under.....	8	75.0	80.0
Over 10 and up to 14 reichsmarks.....	12	65.0	80.0
Over 14 to 18 reichsmarks.....	16	55.0	75.0
Over 18 to 24 reichsmarks.....	21	47.0	72.0
Over 24 to 30 reichsmarks.....	27	40.0	65.0
Over 30 to 36 reichsmarks.....	33	40.0	65.0
Over 36 to 42 reichsmarks.....	39	37.5	62.5
Over 42 to 48 reichsmarks.....	45	35.0	60.0
Over 48 to 54 reichsmarks.....	51	35.0	60.0
Over 54 to 60 reichsmarks.....	57	35.0	60.0
Over 60 reichsmarks.....	63	35.0	60.0

<sup>1</sup> Family allowance = 5 per cent of standard wages.

# COOPERATION

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## Cooperative Banking Authorized in Iowa

**A**T ITS 1927 session the Iowa Legislature passed a law (ch. 205, Laws of 1927) authorizing the formation of cooperative banks empowered to conduct a general banking business.

Ten persons are required as incorporators. Shares may not be less than \$10 each, and share capital equal to that required in the case of State banks must be subscribed before a certificate of incorporation will be issued.

Cooperative banks are given all the powers granted to State banks.

Dividends on share capital may not exceed 8 per cent of the par value of the stock. After this has been paid and a surplus equal to half the capital stock has been accumulated any surplus earnings may be distributed among the depositors and borrowers—among the depositors in proportion to the amount of interest received by them on their deposits and among the borrowers in proportion to the amount of interest paid by them on their loans.

Voting is on the basis of one vote per stockholder, regardless of amount of stock owned.

The use of the term "cooperative bank" is prohibited, except by enterprises incorporated under this act, on penalty of a fine of \$500.

The July 23, 1927, issue of *Agricultural Cooperation* (Washington, D. C.) reports that already one bank has been incorporated under this act. It began business June 28 in the little town of What Cheer, "taking over the business of a small savings bank which had the confidence of the community but needed more capital." The new bank is capitalized at \$25,000, and has 77 members, many of whom are said to be members of the Farmers' Union.

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## Development of Building and Loan Associations, 1925-26

**A**T THE thirty-fifth annual meeting of the United States League of Local Building and Loan Associations, held in Asheville, N. C., July 19 to 22, 1927, data were submitted by the secretary of the league showing the status of the building and loan associations at the end of the fiscal year 1925-26.<sup>1</sup> His report shows that that year brought forth the "largest increase in assets which has ever been shown in any single year of their history." As compared with the previous year the membership increased nearly 8 per cent and assets nearly 15 per cent. During 1925-26 these associations made mortgage loans aggregating \$1,945,000,000, "which provided the means for the purchase or building of over 550,000

<sup>1</sup>United States League of Local Building and Loan Associations. Secretary's annual report relating to the building and loan associations in the United States, submitted to the thirty-fifth annual meeting at Asheville, N. C., July 19-22, 1927. Cincinnati [1927?].

homes." The mortgage loans of these organizations outstanding at the end of 1925-26 amounted to \$5,852,689,591.

The table below, taken from the report, shows the number, membership, and assets of these associations, by States:

DEVELOPMENT OF BUILDING AND LOAN ASSOCIATIONS IN THE UNITED STATES, 1926-27

State	Number of associations	Number of members	Total assets	State	Number of associations	Number of members	Total assets
Alabama <sup>1</sup> .....	20	20,000	\$15,000,000	Nevada.....	1	900	\$460,370
Arizona.....	6	3,925	1,681,526	New Hampshire..	28	15,115	9,223,974
Arkansas.....	71	53,064	32,029,637	New Mexico <sup>1</sup> ....	18	6,500	3,250,000
California.....	176	223,440	190,106,988	New Jersey.....	1,473	1,084,381	760,067,751
Colorado.....	64	85,144	35,186,058	New York.....	309	504,008	297,707,160
Connecticut.....	38	35,896	18,290,897	North Carolina...	240	96,590	85,715,009
Delaware.....	41	16,250	8,844,308	North Dakota....	18	15,300	7,788,410
Dist. of Columbia..	22	59,299	50,729,274	Ohio.....	841	2,147,275	928,381,733
Florida.....	73	27,000	39,357,725	Oklahoma.....	90	167,410	103,343,185
Georgia <sup>1</sup> .....	21	5,000	1,500,000	Oregon.....	42	38,200	18,280,225
Idaho.....	12	4,250	2,335,265	Pennsylvania....	4,460	1,800,000	1,130,000,000
Illinois.....	881	840,000	355,509,301	Rhode Island....	7	31,819	19,538,506
Indiana.....	399	382,123	247,903,736	South Carolina...	152	26,800	22,782,000
Iowa.....	74	71,800	40,771,567	South Dakota....	26	7,015	5,000,427
Kansas.....	153	189,398	107,315,298	Tennessee.....	24	11,275	6,716,217
Kentucky.....	147	133,400	74,704,133	Texas.....	138	124,951	70,804,572
Louisiana.....	100	165,332	154,186,635	Utah.....	24	96,284	30,864,124
Maine.....	38	26,171	17,458,473	Vermont.....	9	3,805	2,236,747
Maryland <sup>1</sup> .....	1,210	350,000	200,000,000	Virginia.....	79	51,500	44,557,196
Massachusetts.....	220	466,492	425,511,319	Washington.....	72	249,338	89,001,163
Michigan.....	83	192,070	112,887,929	West Virginia....	60	54,500	28,704,386
Minnesota.....	83	69,618	28,643,208	Wisconsin.....	171	229,165	182,382,373
Mississippi.....	35	18,600	13,015,838	Wyoming <sup>1</sup> .....	20	14,000	8,000,000
Missouri.....	243	215,000	139,461,899				
Montana.....	31	37,500	13,738,790	Total.....	12,626	10,665,705	6,334,103,807
Nebraska.....	83	218,807	153,128,475				

<sup>1</sup> Figures estimated.

### Work of Remedial Loan Associations

THE National Federation of Remedial Loan Associations has recently issued a report covering the operations of 28 associations affiliated with the federation for the fiscal year 1926-27. These societies are semiphilanthropic institutions financed by private capital "to supply funds for necessitous borrowers at legitimate rates," and were established, it is stated, "to provide such competition as would result in the improvement of the methods commonly employed by money lenders and to afford an object lesson that would attract reputable capital" to the money-lending business.<sup>1</sup>

These associations make loans on chattels, pledges, etc., at rates varying, among the different societies, from 8 per cent per year to 2½ and 3 per cent per month. The paid-in capital of the 28 associations at the end of the fiscal year 1926-27 amounted to \$21,708,325 and their surplus to \$8,609,478. Loans numbering 713,251 and amounting to \$55,081,727 were made during the year. Losses from unpaid loans amounted to \$49,838, or less than one-tenth of 1 per cent of loans made. The average loan amounted to \$77.

<sup>1</sup> See "Cooperative provision of credit to the needy worker" in the Labor Review for August, 1927 (pp. 68-71).

## Cooperative Movement in Spain

THE cooperative movement of Spain is described in an article by Prof. Charles Gide in an article in the April-June, 1927, issue of the *Revue des Études Coopératives*,<sup>1</sup> from which the following data are taken.

### Consumers' Cooperation

IT IS pointed out that Spain holds a "very little place" in the consumers' cooperative movement. Exact statistics are not available, but it is estimated that there are some 250 consumers' societies, with about 80,000 members, grouped into three federations. This in a country with a population of some 25,000,000 means that there is about 1 cooperator to every 100 inhabitants.

In point of average cooperative purchases per member these societies make a better showing. The average yearly sales per member average 1,100 pesetas (\$163.85), and in some societies average as high as 2,340 pesetas (\$348.56), a figure, according to Professor Gide, which no French society can equal. These high yearly sales, it is explained, are due to the great variety of goods carried by Spanish cooperative societies.

Spain's most original contribution to the development of cooperation, however, is found in the colonization societies and the organizations formed by the fishermen.

### Colonization Societies

A LAW was passed in 1907 having for its purpose the internal colonization of Spain and the repopulation of the country. Under the law, poor peasant families were to be allotted plots of ground and provided with the means of cultivation. The benefits of the law, however, were to be limited to families without means which lived in the vicinity of the lands to be colonized (because these would already be familiar with the requirements and conditions of the land in the region) and which possessed some knowledge of or aptitude for farming. The law provided for a royal commission (or *junte*) which was to have charge of the administration of the law.

The first problem arising was that of securing land for colonization purposes. No attempt was made to secure privately owned land, the experiment being confined solely to that owned by the State or the communes. The communal land was of two classes: That in which title was in the commune as such, and that which was really "common" land—i. e., owned collectively by the people of the commune and which could be disposed of only by a referendum securing a three-fourths vote of all the inhabitants. The State land could be secured easily enough, but the communes were generally unwilling to dispose of land that was of value. The result was that communal lands taken over were usually the poorest land in the district.

In allotting the land preference was given to families with the largest number of sons, for sons would be of greater help in farming than would daughters. Only those peasants were chosen who seemed capable of becoming good colonists and who could give proof

<sup>1</sup> *Revue des Études Coopératives*, Paris, avril-Juin, 1927, pp. 209-230: "Certains aspects originaux du mouvement coopératif en Espagne," par Charles Gide.



of general good conduct. Each family was given, free, a plot of ground large enough to enable the family "to live by its own labor" but not large enough to require any outside hired help. As one of the objects of the law was the creation of independent farmers from poor farm laborers, care was taken to prevent the attraction to the colony of wageworkers.

For the first five years the colonist held his land on probation. During this period he must demonstrate his fitness as a colonist and his ability as a farmer; if he failed the land was taken back. At the end of the five-year period the colonist became proprietor of his plot of ground with the dwelling thereon, but with the restriction that (1) he could not dispose of it for 10 years; (2) if after 10 years he wished to sell, the colonization society must be given the first chance to purchase; (3) he was prohibited from using the farm as security for a loan; and (4) the plot of land must never be divided.

The colonists in each locality were required to form a cooperative association whose functions included the supply of household and farm necessaries, the marketing of the products of the colony, and the provision of a medium of credit, savings, mutual aid, and cultural development.

Capital was necessary to finance the farming operations, the supply of machinery, the necessaries of life, etc., while the land was being brought into cultivation, for the colonists were, as already stated, chosen from the poorest farm laborers. This capital was obtained from the communes, from agricultural credit and other banks, etc., on the collective guaranty of the colony, acting through the cooperative society. These advances were payable over long periods, sometimes up to 50 years.

The State's contribution to the community took the form of the construction of roads, sewers, and various community services.

There are now some 20 such colonies, covering altogether about 10,500 hectares (nearly 26,000 acres) and including somewhat over 1,200 colonists. Thus the average holding is not quite 9 hectares (about 22 acres), although this varies according to the kind and quality of land obtained. Most of the colonies are in the southwest of Spain, and the greater portion of the land is situated on the mountain sides, since the municipalities were unwilling to give up land unless it was "well-nigh useless."

One colony is described which was ceded a barren stretch of land that upon analysis was shown to be 91 per cent pure sand. But, "by a dispensation of Providence," it was found that the soil was exactly suited to the cultivation of vineyards, the sand also being fatal to the phylloxera with which European vineyards are afflicted; also, the land was situated at the mouth of the Guadalquivir River and was therefore irrigated by its waters. Thus what seemed an utterly worthless piece of ground turned out to be a wonderful producing region, and each family from its plot of ground (1 hectare—about  $2\frac{1}{2}$  acres—for those with a market garden, 2 hectares for those with vineyards) averages an income of from 3,000 to 5,000 pesetas (\$447 to \$745) per year.

A central bank has been formed which is endeavoring to introduce among the colonists a genuinely cooperative system of farming—that of the collective farming of a number of plots of ground instead of the individual cultivation of each plot.

The scope of the colonization work is limited by the amount of lands available for the purpose. Immense amounts of land are owned by rich landowners, and much of this is idle ground which might be made of use for the people as a whole. With this in mind, the junta drew up a bill designed to remedy the land situation. It provided for a survey of all the lands in the Kingdom "to determine what were the uncultivated lands, neglected by the proprietors, but which could be improved and in that way were proper for colonization." Such of these lands as was necessary would be expropriated, with indemnity to the owners.

The bill was introduced in 1911 and again in 1914, when the war caused it to be laid aside. It was presented for a third time in 1921, but was laid aside because of much opposition. Professor Gide remarks that the limitation upon land ownership imposed by the bill would be "very modest" as compared with the measures of expropriation taken by some of the countries of eastern Europe, but the bill "appeared very revolutionary in Spain," and its chances of passage appear remote, especially since the junta has been dissolved and the colonization work placed under a ministerial bureau, indicating, perhaps, that the administration found the zeal of the junta "a trifle importunate."

If, however, the bill becomes law and "all the great Spanish domains are cultivated by small proprietors, required to unite under a system of cooperative associations, it would be a considerable achievement in the history of the cooperative movement. We might even see the ideal solution of the great agrarian problem."

#### Fishermen's Cooperatives

**F**ISHERMEN'S cooperative associations, or *positos*<sup>2</sup> *maritimos*, as they are known in Spain, have attained a remarkable development. They are found along all the seacoast of Spain and now number some 140 or 150, with about 35,000 members. Eighty of these associations own their own boats.

Though the primary object of these associations is the sale of fish directly to the consumer (Professor Gide points out that there is hardly a commodity in which the margin between the price received by the producer and that paid by the consumer is greater), the organizations include not only the fishermen but all the workers of sea and port. Thus the fishers, lightermen, boat builders, calkers, painters, etc., all belong to the same association.

These associations, it is pointed out, are, as regards altruistic character, in the front rank of the cooperative movement. No dividends are returned to either members or patrons of the society. The earnings, above the wages of the members, are used, first, to pay any debts of the association (such as money borrowed to buy boats, etc.), and then, if any money is left, it is used for social purposes. The societies are directing their attention especially to "the two scourges of maritime population in all countries, but particularly in Spain—ignorance and alcoholism." In Spain 85 per cent of the fisher population can neither read nor write. The first step of these organizations of illiterate fishers is to provide schools for their chil-

<sup>2</sup> "Positos" means literally a place where something is deposited, as a bank, grain elevator, etc., but it is explained that the word has a wide general use in Spain in sort of a symbolic way.

dren. Already more than 100 schools have been built, at which 8,650 children are in attendance. At these schools the children not only are receiving a general education but are also being instructed in the principles and practice of cooperation. They form their own little cooperative societies through which they purchase their books, pencils, and other school supplies, plan and carry out little excursions, etc.

The fishers' societies make their own nets, cordage, and paint, paint and calk the boats, etc. Any capital needed can be secured, through the collective liability of the group, from the Maritime Credit Bank, administered by a council composed of the Minister of Marine, certain other State officials, and representatives of the men.

Of the societies, 50 devote themselves solely to the marketing of the catch, but 66 have also established insurance against sickness, invalidity, and old age; 26 make loans to their members; 6 have undertaken to build homes for the workers; and 36 have established cooperative stores.

# WORKERS' EDUCATION AND TRAINING

## Summer Schools for Woman Workers<sup>1</sup>

FOUR special summer schools for woman wage earners were in session this year. The Southern Summer School for Woman Workers in Industry at Sweet Briar College, Va., which opened for the first time July 22, 1927, had 24 students, while the new school at Barnard College, New York City, began its courses on June 27 with accommodations for 40 students. This latter experiment is under the auspices of a joint committee of college representatives and woman workers and is administered as a separate unit within the Columbia University Summer Session. The Wisconsin Summer School for Women in Industry was inaugurated several years ago<sup>2</sup> and started its 1927 season with 50 students.

The well-known Bryn Mawr College School dates back to 1921.<sup>3</sup> Of the 521 woman workers who have availed themselves of the courses at this school during its six seasons, 56 have returned for a second summer. This year there were 102 students. They came from various parts of the United States and one of the women was from England.

Brookwood Labor College, it will be recalled, holds summer institutes for men and women.

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## Industrial Training in Alaska

THROUGH its Alaska division, the United States Bureau of Education is developing and educating the native population of Alaska, many of whom are in a state of racial childhood and require assistance in adjusting themselves to the new conditions which civilization has brought about, according to a pamphlet recently published by that bureau.<sup>4</sup> This work involves the uplifting of entire communities and includes the maintenance of schools, hospitals, and orphanages, the relief of destitution, the fostering of trade, the organization of cooperative business enterprises, the establishment of colonies, and the supervision of the reindeer industry.

One of the most effective agencies for the advancement in civilization of a native village, the bureau reports, is the establishment in it of a cooperative store, owned and managed by the natives, under the supervision of a teacher of a United States public school. In this store food and clothing are sold at equitable prices and the profits, which otherwise would go to a white trader, are divided among the

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<sup>1</sup>U. S. Women's Bureau. News Letter No. 51: Activities affecting women in industry.

<sup>2</sup>Labor Review, July, 1926, p. 98.

<sup>3</sup>Idem, pp. 97, 98.

<sup>4</sup>United States. Department of the Interior. Bureau of Education. Bulletin, 1927, No. 6: Work of the Bureau of Education for the natives of Alaska, by William Hamilton.

natives themselves. The natives also acquire self-confidence and experience in business affairs through managing the store.

Until recently no systematic form of industrial education for the natives of Alaska was provided within the Territory. Formerly young Alaskans were sent to the schools maintained by the United States Office of Indian Affairs in the States. This policy, however, was found to be unwise and uneconomic for various reasons. The change of climate frequently had a deleterious effect on the health of the children, and many of those who returned to Alaska found it difficult to adapt themselves to their home environment. Some of those who remained in the States are said to have found themselves forced into unfortunate social conditions. Therefore the policy was adopted of establishing industrial schools within Alaska itself. Three schools, located at points accessible from the different sections of the Territory, already have been established, and the Bureau of Education states that it is the intention to extend the facilities for industrial training as rapidly as funds permit.

The curricula of these vocational schools include house building, carpentry, boat building, furniture making, sled construction, operation and repair of gas engines, marine engineering, navigation, tanning, ivory carving, and basket weaving. The native races of Alaska are said to possess extraordinary dexterity, evidence of which is found in the ivory carving of the Eskimos, the basket weaving of the Aleuts, and the totem carving of the inhabitants of southeastern Alaska, and with very little training they excel in all mechanical occupations.

As a result of the work of the Bureau of Education and of other civilizing agencies, the primitive conditions which existed in Alaska when the bureau began its work there 40 years ago have gradually disappeared except in some of the remotest settlements which have not been reached. In many of the villages the old huts have been replaced by neat, well-furnished houses, the homes of self-supporting, self-respecting natives, thousands of whom are employed by the great canneries of southern Alaska. Fleets of power boats owned and operated by natives carry fish from the fishing grounds to the canneries. Many natives are employed in the mines, while others are pilots, trappers, storekeepers, loggers, or ivory carvers, and still others are employed as cooks, janitors, and orderlies in the hospitals. Some have entered the legal and clerical professions. For many years the bureau has been appointing as teachers in its Alaska school service the brightest of the graduates of its schools. Native girls showing special qualifications for medical service are received into the bureau's hospitals for training as nurses. Throughout northwestern Alaska and along the Alaska Railroad native owners of reindeer, whose herds furnish an inexhaustible meat supply, are important factors in the industrial and economic situation of the Territory.

## WELFARE WORK

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### Encouragement of Thrift by Employers

**A**S PART of the Bureau of Labor Statistics' recent survey of personnel activities carried on by industrial establishments in the United States, study was made of the various plans in use for the encouragement of thrift among employees. These plans include savings and loan funds, building funds, profit-sharing plans, sale of company stock to employees, vacation and Christmas savings funds, cooperative buying and discounts on company goods, legal aid, and advice as to investments and expenditures.

The survey covered a total of 430 companies. One hundred and ninety-six companies reported that an effort was made to get their employees to put something in the bank each pay day. In the majority of instances this assistance consisted of deducting from the pay envelope an amount specified by the employee and depositing it to his credit in his bank or sometimes arranging for a representative of a bank to be present on pay day to receive the employees' deposits. While this may not be regarded as very definite assistance on the part of the employer, it does make it easy for the individual employee to maintain a bank account, and it has the added merit, where the employees themselves make the deposits, of the example afforded by a large number following a plan of systematic saving. In other establishments there is a savings fund into which the members pay a stated amount each week and often this fund is used as a loan fund for subscribers. Very often these funds are in charge of the employees and they are allowed the necessary time for the management of the fund and for collecting deposits on pay day.

#### Types of Savings and Loan Funds

**T**HERE are several types of savings funds—credit unions in which membership is conditioned on purchasing a stipulated number of shares of stock; investment funds in which the depositor's savings will be invested for him if he wishes; funds in which members are required to pay a certain percentage of their salary, a stated amount being paid in to their credit by the company; the regular savings and loan fund, in which a certain rate of interest is paid on deposits and from which members in good standing may secure small loans; and vacation and Christmas savings funds. The last two are planned for saving for a definite purpose, but they have been found to have a good effect in teaching the value of systematic saving.

Frequently a very large proportion of the employees of an establishment are members of the savings fund. A credit union made up of nearly the entire personnel of a company manufacturing incandescent lamps is probably typical of this type of organization. A small entrance fee is charged, and in order to become a member it is necessary to subscribe for at least one share of stock, after which the usual

banking procedure in making deposits or withdrawing money is followed, although the directors may at any time require depositors to give 30 days' notice of intention to withdraw the whole or any part of a deposit. Members in good standing in the credit union may secure loans upon written application and stating the purpose for which the loan is desired, the maximum amount loaned to any member at any one time being \$50 unsecured and \$200 secured. This organization is run entirely by the employees, but the employer pays for the bookkeeping.

A large mail-order house sells thrift certificates to those employees who wish to purchase them. The certificates are issued in denominations of \$50 and multiples thereof and may be paid for in regular installments or by deposit at any time. Payments may be made personally to the cashier, or the paymaster may be authorized to deduct them from the pay. These certificates, which are nonnegotiable, bear interest at the rate of 5 per cent. Any employee who is the head of a family and who has saved at least \$500 may secure a loan from this company for the purpose of building or buying a home, and emergency loans are made to employees on approval of the office manager.

The savings plan of a gas and electric company was established for the encouragement of thrift among the employees and to interest them in the company's affairs by helping them to become part owners through acquisition of the company's stock. The plan permits deposits in sums of not less than 25 cents. Five per cent interest, compounded quarterly, has been paid since the organization of the fund. Depositors may, from time to time, make arrangements to have their savings invested in the bonds or capital stock of the company, but this is entirely optional with them. The fund is administered without expense to the employees. A board of 14 trustees, 10 of whom are employee depositors and the remainder company officials, directs the operation of the fund. More than half of the 4,200 employees at the time of the survey belonged to the fund and had on deposit more than a quarter of a million dollars. Members may borrow up to \$200 from the fund, the loan to be repaid in monthly installments within a year.

A corporation with many plants had in 1926 about 36,000, or 54 per cent of all eligible employees, participating in its savings and investment plan. Under this plan all employees are eligible to participate after three months' service with the company, and employees who desire to do so may pay into the savings fund each year an amount not to exceed 10 per cent of their wages or salary, with a maximum of \$300. The corporation pays into this fund on or before the last day of December each year an amount equal to one-half the net payments made by the employees which is credited to the account of each employee over a period of five years. Employees may withdraw their savings from the fund, plus interest, at any time, but if they withdraw before the end of five years they forfeit the un-matured portion of the money paid in by the corporation. Interest at the rate of 6 per cent per annum is paid. The funds in the different plants are divided into yearly classes designated by the year in which the class was formed. At the end of the period for the 1920 class—the first five-year class—8,300 employees received \$11,200,000 in cash and common stock. This was equivalent to a return of more

than nine dollars to one on each employee's savings. Through the resources of this fund employees are assisted in buying or building homes, and in the first six years it was in operation more than 7,000 employees took advantage of this assistance.

A combined savings and profit-sharing plan is in force among all the branches of a large mail-order house. In order to participate an employee must deposit 5 per cent of his salary. The company contributes a part of the net profits of the business after certain deductions have been made, and this contribution is credited to the depositors pro rata according to their deposits, with an increase in the per cent for each five-year service period.

In some plants an "auto teller," or automatic saving machine, is installed. From 25 cents to \$25 can be deposited in the machine, which stamps the amount on the deposit slip and returns the slip to the depositor. When deposits are made in this way employers do not know the amount of the individual employee's savings, a feature which appeals to many employees. It also has the advantage that it affords a convenient way of depositing small amounts. A taxi company reported that drivers find it particularly convenient, as they deposit their tips at the end of each shift. Another company stated that various savings schemes had been tried which had not proved successful, but that the auto teller was used by large numbers.

There were 72 loan funds maintained either by the company or as a part of the savings plan. Some firms have a considerable amount of money available for emergency loans. Repayment is nearly always made through pay-roll deductions.

A number of the savings plans are linked up with the profit-sharing or the stock-ownership plan. An example is that of a company having about 10,000 employees. The thrift program includes a wage-dividend plan, purchase of company stock, a savings and loan fund, and a building and loan and housing plan. The wage-dividend plan is based on wages and length of service, the dividends upon common stock over \$1 a share which are declared during the calendar year being used for these disbursements. About 85 per cent of the employees are eligible to participate in this plan; approximately 60 per cent own company stock; the savings and loan association has 5,300 members; and nearly a thousand have been assisted in building or purchasing homes by the employees' realty corporation.

#### Building and Loan Associations

**T**HIRTY-NINE companies reported building and loan associations or some plan of giving financial aid in building or buying homes. In addition to these there are a number of firms which have no special plan which is followed in all cases but who give both advice and financial help to their employees who wish to own their own homes.

There are certain features that are common to the majority of building and loan plans. A year's service with the firm is generally required before financial aid is given, and the majority of the plans require that the buyer have 10 per cent of the value of the property for an initial payment in order to receive the help of the association or the company.

Although company housing plans are usually limited to some one district, several companies allow employees to choose lots wherever



they wish, feeling that it is better for the employee to choose the locality in which he shall live rather than to be restricted to a district chosen by the company.

#### Legal Aid and Advice as to Investments and Expenditures

NEARLY two-thirds of the companies reported that their employees have the privilege of coming to them for free legal advice. In many of the larger establishments the firm has its own legal staff, or it may be there is a single attorney or some member of the firm who is qualified who gives part of his time to this work.

A company with many thousands of employees has a staff of lawyers who give free advice in every kind of personal, domestic, or business difficulty, the object being to keep employees out of trouble, or, if already in it, to defend them so far as they are in the right. The work of the legal staff includes everything done in any law office, including counsel, advice, examination and preparation of legal papers or documents, and representation of employees in court when the merits of the case warrant this. The effect of this work is considered to be important in fostering the good will of the working force.

On the other hand, a number of companies which reported that legal advice was given if requested evidently did not make much of a feature of this service, while a number stated that employees were not encouraged to ask for it.

Advice as to investments and expenditures is given in many instances. The legal department usually advises employees as to investments. In a number of cities bureaus or commissions connected with the city chamber of commerce have been established for the purpose of protecting the public from fraudulent schemes and dishonest advertising and merchandising methods. Industrial establishments which support these bureaus often refer their employees to them for advice. In some plants men are appointed in different departments whose business it is to keep informed on these matters and give advice to other employees when it is requested. They work with the Better Business Bureau or the Industrial Protective Association and can get disinterested advice at any time as to the merit of proposed investments.

#### Cooperative Buying and Discounts

COOPERATIVE stores were found in only 21 instances, but a large proportion of the companies either promoted the cooperative buying of certain commodities or allowed employees a discount on their own products or on supplies bought by them. Rubber boots, safety or work shoes, overalls, tools, and similar articles are often bought in quantities and sold at cost; and many companies buy coal and sell at reduced prices to their employees or make an arrangement with coal dealers whereby employees can have coal charged to the company and pay for it through pay-roll deductions, in this way making it possible for employees to buy their winter's supply when it is cheapest. Two hundred and thirty-seven firms reported that a special discount is allowed employees on company goods. Department stores without exception allow a discount on merchandise ranging from 10 to 25 per cent, with stated times at which employees may

make their purchases, and sometimes special sales are arranged for them.

A cooperative store maintained by the employees of an insurance company has been in successful operation for a number of years. This store saves employees about 25 per cent on purchases and the business averages nearly \$18,000 a month. Another large office force runs a cooperative store where clothing and furniture and some groceries, auto supplies, etc., can be purchased at about 10 per cent above the wholesale price, this margin covering the salary of the man in charge and other expenses. The company gives the space for the store and light and heat. The employees' thrift club of 600 members in a metal manufacturing plant runs a cooperative store which started on a small scale but is now very successful. The club also has charge of the employees' lunch room. The company pays the running expenses on both projects and no attempt is made to make any profit, prices being reduced if any surplus is shown.

Forty-one companies reported that cooperative buying had been discontinued. In the majority of cases it was given up shortly after the close of the World War, having served its purpose during that time and being no longer needed. Some feel, however, that the establishment of chain stores has largely done away with the necessity for cooperative buying, and many companies do not favor it, as, if it is done on a large scale, the merchants of the community feel that it is unfair.

#### Other Plans for Encouraging Thrift

**A**MONG other methods which are designed to teach employees the importance of saving and to allow them to have a share in the prosperity of the enterprise are profit-sharing and stock-ownership plans and bonuses for length of service or for regular attendance. As a survey of profit-sharing and stock-ownership plans was beyond the scope of the present study, little information was secured beyond the fact that some such system was in effect. About 50 companies had some plan by which the employees shared in the profits either through a regular profit-sharing plan, through a bonus system, or by distribution of company stock, while 123 companies reported that they have a special plan for the sale of stock to employees. The distribution of thrift literature is another method of educating employees to the desirability of planning in time for the inevitable rainy day. The pay envelope and the plant paper furnish convenient means for reminding employees of the advisability of saving, and various companies use the services of visiting nurses or other personnel workers to give practical demonstrations in economics as related to workmen's incomes.

## LABOR LAWS

### Weekly Rest Law of Colombia <sup>1</sup>

ON NOVEMBER 16, 1926, the Colombian Legislature passed a law (No. 57) requiring all private and public industrial or commercial establishments to grant their wage earners and salaried employees one day of rest for every six days of work. The law establishes Sunday as the rest day and stipulates that the rest period shall be at least 24 hours long. The provisions of this law shall apply also to domestic servants.

In certain specified instances, as in continuous industries and in those in which Sunday closing would work hardship to the public, the rest may be given on another day of the week than Sunday (either to the entire personnel simultaneously or in shifts), or from Sunday noon until Monday noon, or two half days a week may be given.

In order to remain open all day Sunday proprietors of establishments must obtain the authorization of the Ministry of Industry. No worker may be employed on his rest day without his consent, and in case of being so employed he may choose between a compensatory rest day or not less than double pay for the time worked.

The law specifies that all who work for the State or municipalities shall be compensated for national and religious holidays in addition to their days of rest.

Violations of the law are punishable by a fine of 20 pesos,<sup>2</sup> and any who may hinder the Labor Office inspectors in the enforcement of the law are to be fined a similar amount.

Establishments allowed to remain open on Sundays must post in a conspicuous place a placard showing the names of their workers and the days on which they have their weekly rest.

<sup>1</sup> Colombia. Diario Oficial, Bogota, Nov. 17, 1926, pp. 297, 298.

<sup>2</sup> The exchange rate of the peso in 1926=98.40 cents.

# LABOR ORGANIZATIONS AND CONGRESSES

## International Trade-Union Congress, 1927<sup>1</sup>

THE fourth annual congress of the International Federation of Trade-Unions was held in Paris, August 1-6, 1927.

Among the various decisions reached by the congress were the following:

That in view of the growing importance of nonmanual workers and civil servants in economic and political life, it is highly desirable to win over such workers to the trade-union international and to facilitate their close cooperation with the manual workers. For this purpose the trade-union movement all over the world should endeavor to induce nonmanual workers to affiliate and should stimulate the formation of such unions.

In unionizing nonmanual workers and civil servants attention should be paid to their special position, their working conditions, their social status, and their mentality. These workers should not, against their will, be incorporated into organizations of manual workers. Cooperation should be encouraged, however, in cases in which manual and nonmanual workers have already formed successful joint organizations.

The International Federation of Trade-Unions will be allowed to initiate international relief action only when "several trade or industrial unions of the same country are simultaneously involved in economic conflicts of such an extent that the means requisite to conduct them can not be raised either in the country, or by the international trade secretariat to which these unions are affiliated." In exceptional cases, however, the International Federation of Trade-Unions may organize relief action when so large a number of the workers in a trade or industry are concerned in the conflict that the resources of the country itself or of the international trade-union secretariat are insufficient.

"International strike breaking must be prevented." Those who, despite the warnings of their organizations, are found guilty of strike breaking shall be expelled from their organizations. In exceptional cases the national center concerned in a labor conflict may appeal to the International Federation of Trade-Unions for the prevention of the transportation of certain commodities to the country in which such conflict is being carried on.

The congress urged its affiliated organizations to take all the steps that in their judgment might seem appropriate to maintain or recover the eight-hour day and demanded that the Governments ratify the Washington convention on that subject. Strong opposition was expressed to separate agreements between Governments on the eight-hour day without reference to the International Labor Office, and

<sup>1</sup> International Federation of Trade-Unions, Amsterdam. Press Report No. 29, Aug. 11, 1927, pp. 3-9.

the practice of nations in permitting numerous exceptions when ratifying the Washington convention was forcefully condemned.

Governments were called upon by the congress to act in accordance with recommendation of the 1927 International Economic Conference that "Government institutions, trade organizations, and public opinion give special attention to measures of a kind calculated to insure to the individual the best, the healthiest, and the most worthy employment, such as vocational selection, guidance and training, the due allotment of time between work and leisure, methods of remuneration giving the worker a fair share in the increase of output, and general conditions of work and life favorable to the development and preservation of his personality."

The congress held that it is the duty of the International Federation of Trade-Unions to carry on a perpetual peace propaganda and to use all available means (placards, pamphlets, etc.) for this campaign. A special appeal was made to mothers and teachers to imbue the rising generation with the "spirit of universal peace" in order "that international brotherhood may soon become a living reality."

The following is the program, in part, recommended by the congress to its national sections:

*Promotion of general economic progress.*—The national centers should wage war on "protectionist commercial policy and on all other measures tending to give rise to economic and commercial enmity."

*Scientific management* should be indorsed only on condition that representatives of the wage earners engaged in the undertaking or of the competent labor organizations invariably cooperate in such scientific management and that it shall result, step by step, in the increase of real wages and the consequent expansion of the market.

*National and international cartels* should in the future be brought more under trade-union supervision and control. Attempts to keep prices up and to raise prices regardless of the needs of the great mass of consumers must be fought in every possible way by the trade-unions, especially by securing the establishment in all countries of government cartel control offices, of public registers of cartels, and of courts for the control of cartels on which the trade-unions shall have representatives.

*The economic importance of the home market must be fully recognized.*—Trade-unions should strive to lower prices or to raise wages or, preferably, to do both, in order to increase the mass consumption of the products of improved labor and economic processes.

## Resolutions of International Conference of Woman Workers<sup>1</sup>

**A**T THEIR Paris conference, July 29-30, 1927, the woman wage earners affiliated with the International Federation of Trade-Unions adopted a resolution in favor of the protection of woman as a worker and of the woman worker as a woman, declaring the solidarity of organized woman workers with all the workers, and expressing the earnest desire to strive enthusiastically with all workers "for the regeneration of the world."

<sup>1</sup>International Federation of Trade Unions, Amsterdam. Press Report No. 29, Aug. 11, 1927, pp. 11, 12.

Woman workers all over the world were urged to become trade-unionists. The conference also insisted that the wages and labor conditions of persons engaged in home work should "at least be placed on equality with those of the factory workers of the same trade"; and, furthermore, that "in all countries the social legislation of the land shall be applied in its entirety to all persons engaged in home work." This it was declared could only be accomplished through attaching the greatest importance to the trade-union organization of such persons.

It was also demanded that a convention be issued by the International Labor Conference of 1928 "establishing methods for fixing minimum wages for home workers."

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### Organization of Cuban Federation of Labor

THE Cuban Federation of Labor was organized in Habana on May 22, 1927, by a group of workers representing various industries, according to the September, 1927, issue of the Pan American Union Bulletin. The aims of the organization will be to improve the economic and social conditions of the workers and thereby assist in developing industrial activities. The federation will aid its members during periods of unemployment, disability, and illness, when such cases are not provided for under the workmen's compensation law.

The Cuban Federation of Labor is affiliated with the Pan American Federation of Labor.

# HOUSING

## Building Permits in Representative Cities

THE Bureau of Labor Statistics presents herewith its semiannual report of building operations in cities having a population of 100,000 or over. Reports were received for the first half of 1927 from 80 cities, as compared with 78 in the first half of 1926.

Of the 80 cities reporting for the first half of 1927, over 94 per cent forwarded their schedules by mail either direct to the bureau or to cooperating State bureaus. For the other 6 per cent of the cities schedules were compiled by agents of the bureau, from records kept in the offices of the local building officials.

The bureau's questionnaire asked for the number and cost of each of the different kinds of buildings for which permits were issued in this period. The costs reported are those stated by the prospective builder at the time of applying for a permit, and information was collected only for buildings erected inside the city limits of the municipalities selected, since the city building officials have no authority outside the corporate limits. This, of course, leaves large suburban developments unaccounted for.

Table 1 shows the total number of new buildings and the estimated cost of each of the different kinds of new buildings for which permits were issued in the 80 cities for which schedules were received for the six months ending June 30, 1927, the per cent that each kind forms of the total number, the per cent that the cost of each kind forms of the total cost, and the average cost per building.

TABLE 1.—NUMBER AND COST OF NEW BUILDINGS ACCORDING TO PERMITS ISSUED IN 80 CITIES, JANUARY 1 TO JUNE 30, 1927, BY KIND OF BUILDING

Kind of building	Buildings for which permits were issued				
	Number	Per cent of total	Estimated cost		
			Amount	Per cent of total	Average per building
<i>Residential buildings</i>					
One-family dwellings.....	65,188	39.1	\$319,616,929	23.1	\$4,903
Two-family dwellings.....	11,618	7.0	98,141,450	7.1	8,447
One-family and two-family dwellings with stores.....	1,501	.9	16,207,139	1.2	10,798
Multi-family dwellings.....	6,515	4.0	355,957,616	25.7	54,637
Multi-family dwellings with stores.....	707	.4	39,384,233	2.8	55,706
Hotels.....	88	.1	28,178,044	2.0	320,205
Lodging houses.....	62	(1)	807,741	.1	13,028
All other.....	52	(1)	13,307,372	1.0	255,911
<b>Total.....</b>	<b>85,731</b>	<b>51.5</b>	<b>871,600,524</b>	<b>62.9</b>	<b>10,167</b>

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

TABLE 1.—NUMBER AND COST OF NEW BUILDINGS ACCORDING TO PERMITS ISSUED IN 80 CITIES, JANUARY 1 TO JUNE 30, 1927, BY KIND OF BUILDING—Continued

(Kind of building)	Buildings for which permits were issued				
	Number	Per cent of total	Estimated cost		
			Amount	Per cent of total	Average per building
<i>Nonresidential buildings</i>					
Amusement buildings.....	409	.2	\$60,474,640	4.4	\$147,860
Churches.....	339	.2	18,637,435	1.3	54,978
Factories and workshops.....	1,489	.9	55,251,240	4.0	37,106
Public garages.....	1,580	.9	33,539,770	2.4	21,228
Private garages.....	62,827	37.7	22,662,602	1.6	361
Service stations.....	1,663	1.0	4,563,252	.3	2,744
Institutions.....	100	.1	18,405,111	1.3	184,051
Office buildings.....	579	.3	128,472,870	9.3	221,888
Public buildings.....	124	.1	20,003,638	1.4	161,320
Public works and utilities.....	157	.1	12,481,434	.9	79,500
Schools and libraries.....	244	.1	55,616,179	4.0	227,935
Sheds.....	5,084	3.1	1,903,121	.1	374
Stables and barns.....	79	(1)	265,490	(1)	3,361
Stores and warehouses.....	4,410	2.6	79,353,886	5.7	17,994
All other.....	1,695	1.0	3,004,252	.2	1,772
Total.....	80,779	48.5	514,634,920	37.1	6,371
Grand total.....	166,510	100.0	1,386,235,444	100.0	8,325

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

In these 80 cities, \$1,386,235,444 was spent for new buildings in the first half of 1927. Of this amount \$871,600,524, or 62.9 per cent, was spent for residential buildings and \$514,634,920, or 37.1 per cent, for nonresidential buildings.

Of the amount expended for residential buildings the greatest amount, \$355,957,616, or 25.7 per cent of the amount spent for all new buildings, was expended for apartment houses. Although only \$319,616,929, or 23.1 per cent, was spent for one-family dwellings, more permits were issued for one-family dwellings in these 80 cities during this period than for any other class of building, there being 65,188 of these homes projected during the first half of this year. The next most numerous class of building was private garages, accounting for 62,827 buildings. Two-family dwellings accounted for 7.1 per cent of the whole amount expended.

In the nonresidential group more money was expended for office buildings than for any other class of structure. The cost of office buildings during the six months ending June 30, 1927, was \$128,472,870, or 9.3 per cent of all moneys used during that period for new buildings. Next in importance in the nonresidential group was "stores and warehouses," accounting for 5.7 per cent of the total amount disbursed.

The average cost of one-family dwellings in these 80 cities was \$4,903, as compared with \$4,777 in the first half of 1926. Hotels cost more per building than any other class of structure, the average cost of the 88 hostleries for which permits were issued in this period being \$320,205. Schools and libraries ranked higher in average cost than any other kind of nonresidential building, followed in order by office buildings and institutions.



The average cost of all new buildings was \$8,325. The average cost of residential buildings was \$10,167 and of nonresidential buildings \$6,371. The average cost of nonresidential buildings, however, is heavily weighted with that of private garages, which was only \$361. Excluding private garages, the average cost of nonresidential buildings was \$27,405.

Families Provided for

TABLE 2 shows the number and per cent of families provided for by each of the different kinds of dwellings for which permits were issued in 78 identical cities in the first half of 1926 and the first half of 1927.

TABLE 2.—NUMBER AND PER CENT OF FAMILIES TO BE HOUSED IN NEW DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 78 IDENTICAL CITIES DURING THE FIRST HALF OF 1926 AND THE FIRST HALF OF 1927, BY KIND OF DWELLING

Kind of dwelling	Number of dwellings for which permits were issued		Families provided for			
			Number		Per cent	
	First half of 1926	First half of 1927	First half of 1926	First half of 1927	First half of 1926	First half of 1927
One-family dwellings.....	74,029	64,747	74,029	64,747	36.7	34.6
Two-family dwellings.....	11,864	11,577	23,728	23,154	11.8	12.4
One-family and two-family dwellings with stores.....	2,032	1,498	3,310	2,471	1.6	1.3
Multi-family dwellings.....	6,806	6,478	94,330	88,809	46.8	47.4
Multi-family dwellings with stores.....	548	706	6,288	8,052	3.1	4.3
Total.....	95,279	85,006	201,685	187,233	100.0	100.0

There were 187,233 families provided with homes in new buildings in these 78 cities in the first half of 1927, as compared with 201,685 in the first half of 1926, a decrease in housing units of 7.2 per cent.

One-family dwellings, which accommodated 74,029 families, or 36.7 per cent of all families provided for during the first half of 1926, provided for only 64,747 families, or 34.6 per cent, in the first six months of 1927. Apartment houses, on the other hand, provided for 47.4 per cent of all families housed in new buildings during the first half of 1927 and 46.8 per cent in the corresponding period of 1926.

Table 3 shows the number and per cent of families provided for in the different kinds of dwellings in the 65 identical cities for which reports were received for the first six months of each of the years 1922 to 1927. For convenience, one-family dwellings and two-family dwellings with stores are grouped with two-family dwellings, and multi-family dwellings with stores are grouped with multi-family dwellings.

TABLE 3.—NUMBER AND PER CENT OF FAMILIES PROVIDED FOR IN THE DIFFERENT KINDS OF DWELLINGS IN 65 IDENTICAL CITIES IN THE FIRST HALF OF 1922, 1923, 1924, 1925, 1926, AND 1927

Period	Number of families provided for in—				Per cent of families provided for in—		
	One-family dwellings	Two-family dwellings	Multi-family dwellings	All classes of dwellings	One-family dwellings	Two-family dwellings	Multi-family dwellings
First half of—							
1922 .....	63, 892	32, 351	51, 006	147, 249	43. 4	22. 0	34. 6
1923 .....	77, 875	39, 314	77, 826	195, 015	39. 9	20. 2	39. 9
1924 .....	82, 514	50, 904	69, 619	203, 037	40. 6	25. 1	34. 3
1925 .....	87, 783	39, 320	80, 291	207, 394	42. 3	19. 0	38. 7
1926 .....	71, 818	26, 727	100, 201	198, 746	36. 1	13. 4	50. 4
1927 .....	57, 899	24, 204	95, 448	177, 551	32. 6	13. 6	53. 8

In the first half of 1922 in these 65 cities 147,249 families were housed in new buildings. The number steadily rose until a peak of 207,394 was reached in 1925. This was 40.8 per cent more than in 1922. The number decreased in the first six months of 1926 to 198,746 and during the first half of 1927 to 177,551. The latter figure is the lowest since 1922 and only 20.6 per cent higher than in that year.

In the first half of 1922 one-family dwellings provided 43.4 per cent of all housing units, while multifamily dwellings provided but 34.6 per cent. In the first half of 1927 the apartment-house percentage had risen to 53.8, while the single-family-dwelling percentage had fallen to 32.6.

While the total number of families provided for during the first half of 1927 increased 20.6 per cent as compared with the first half of 1922, the number of families provided for in apartment houses increased 87.1 per cent. In contrast the number of families housed in new one-family dwellings decreased 9.4 per cent.

#### Building Trend, 1926-27

TABLE 4 shows the number and cost of the different kinds of buildings for the 78 identical cities from which reports were received for the first half of 1926 and of 1927 and the per cent of increase or decrease in the number and in the cost in the first half of 1927 as compared with the first half of 1926.

TABLE 4.—NUMBER AND COST OF NEW BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 78 CITIES DURING THE FIRST HALF OF 1926 AND 1927, BY KIND OF BUILDING

Kind of building	New building for which permits were issued in first half of—				Per cent of change, 1927 as compared with 1926	
	1926		1927		Number	Cost
	Number	Cost	Number	Cost		
<i>Residential buildings</i>						
One-family dwellings.....	78,483	\$374,929,350	64,747	\$317,855,774	-18.5	-15.2
Two-family dwellings.....	12,048	102,929,851	11,577	97,745,680	-3.9	-5.0
One-family and two-family dwellings with stores.....	2,056	21,117,089	1,498	16,186,639	-27.1	-23.4
Multi-family dwellings.....	6,888	367,478,406	6,478	355,254,316	-6.0	-3.3
Multi-family dwellings with stores.....	550	31,264,464	706	39,380,733	+28.4	+26.0
Hotels.....	119	72,661,358	87	28,138,044	-26.9	-61.3
Lodging houses.....	9	329,400	62	807,741	+588.9	+145.2
All other.....	65	14,420,800	52	13,307,372	-20.0	-7.7
Total.....	100,218	985,130,718	85,207	869,476,299	-15.0	-12.6
<i>Nonresidential buildings</i>						
Amusement buildings.....	325	48,689,729	406	60,383,740	+24.9	+24.0
Churches.....	326	15,193,610	336	18,543,435	+3.1	+22.0
Factories and workshops.....	1,502	73,019,325	1,479	54,952,840	-1.5	-24.7
Public garages.....	1,663	27,937,809	1,574	33,403,270	-5.4	+19.6
Private garages.....	65,769	27,743,758	62,426	22,537,992	-5.1	-18.8
Service stations.....	1,318	4,770,230	1,642	4,492,602	+24.6	-5.8
Institutions.....	79	14,277,980	98	18,234,111	+24.1	+7.7
Office buildings.....	534	87,882,638	574	128,426,700	+7.5	+46.1
Public buildings.....	89	9,904,652	124	20,003,638	+39.3	+102.0
Public works and utilities.....	179	17,511,186	157	12,481,434	-22.3	-28.7
Schools and libraries.....	279	58,076,620	239	54,995,314	-14.3	-5.3
Sheds.....	6,027	2,673,129	4,901	1,885,963	-18.7	-29.5
Stables and barns.....	112	315,446	79	265,490	-29.5	-15.8
Stores and warehouses.....	5,342	94,935,790	4,347	78,843,311	-18.6	-17.0
All other.....	1,584	6,723,309	1,691	2,984,752	+6.8	-55.6
Total.....	85,128	489,655,211	80,073	512,434,592	-5.9	+4.7
Grand total.....	185,346	1,474,785,929	165,280	1,381,910,891	-10.8	-6.3

In the 78 cities from which reports were received for both periods a total of \$1,381,910,891 was spent for all new buildings in the first six months of 1927, as compared with \$1,474,785,929 in the first six months of 1926, a falling off of 6.3 per cent. The number of new buildings for which permits were issued fell from 185,346 in the first half of 1926 to 165,280 in the first half of the current year, a reduction of 10.8 per cent.

Residential buildings decreased 15 per cent and their cost 12.6 per cent. All classes of residential buildings except lodging houses and multi-family dwellings with stores showed a decline in both number and cost. While the number of nonresidential buildings decreased 5.9 per cent their cost increased 4.7 per cent. The money expended for the erection of the 80,073 buildings in this group in the first half of 1927 was \$512,434,592 as compared with \$489,655,211 for 85,128 buildings in the first half of 1926. Public buildings showed the largest percentage of increase in money expended of any class of nonresidential buildings—102 per cent—while their number increased 39.3 per cent. Amusement buildings, churches, institutions, and office buildings also showed an increase in both number and cost in the first half of 1927 as compared with the first half of 1926. There was

a decrease in both the number and cost of factories and workshops, private garages, public works and utilities, schools and libraries, sheds, stables and barns, and stores and warehouses. Service stations and "all other nonresidential" showed an increase in number but a decrease in amount expended, while public garages showed a decrease in number but an increase in the amount expended.

## Per Capita Expenditure for Buildings

TABLE 5 shows the per capita expenditure for new buildings, new housekeeping dwellings, additions and repairs, and for all buildings in the 72 cities in which either the population was estimated by the Census Bureau for 1927 or a State census was made in 1925.

TABLE 5.—PER CAPITA EXPENDITURE FOR NEW BUILDINGS, NEW HOUSEKEEPING DWELLINGS, AND FOR ADDITIONS AND REPAIRS TO OLD BUILDINGS IN 72 CITIES IN THE FIRST SIX MONTHS OF 1927

City and State	Estimated population July 1, 1927	Per capita expenditure for—			Rank in per capita expenditure for all buildings	Per capita expenditure for new housekeeping dwellings
		New buildings	Repairs, additions, and alterations	All buildings		
Albany, N. Y.	119,500	\$44.55	\$12.88	\$57.43	9	\$30.39
Baltimore, Md.	819,000	15.80	3.77	19.57	56	10.85
Birmingham, Ala.	215,400	44.55	5.33	49.88	10	28.10
Boston, Mass.	793,100	25.74	6.94	32.68	27	13.57
Buffalo, N. Y.	550,000	24.74	1.44	26.18	40	12.44
Cambridge, Mass.	123,900	29.89	3.67	33.57	25	17.12
Camden, N. J.	133,100	19.89	2.82	22.71	51	9.21
Canton, Ohio	113,300	14.32	2.40	16.72	61	10.08
Chicago, Ill.	3,100,500	65.94	1.86	67.80	6	42.44
Cincinnati, Ohio	412,200	27.55	5.24	32.80	26	23.66
Cleveland, Ohio	984,500	16.67	3.47	20.14	54	9.58
Columbus, Ohio	291,100	40.91	4.41	45.31	13	22.03
Dallas, Tex.	208,600	18.76	4.26	23.02	48	6.55
Dayton, Ohio	180,400	26.07	6.59	32.66	28	14.68
Denver, Colo.	289,800	20.19	3.40	23.59	44	12.94
Des Moines, Iowa	148,900	8.81	.88	9.69	67	5.37
Detroit, Mich.	1,334,500	52.74	6.26	59.01	7	28.41
Duluth, Minn.	114,700	14.62	5.62	20.24	53	7.14
El Paso, Tex.	113,500	1.92	2.34	4.26	72	1.42
Fall River, Mass.	132,600	8.20	1.43	9.62	68	5.76
Flint, Mich.	142,700	79.21	4.24	83.45	3	44.51
Fort Worth, Tex.	163,600	67.07	22.32	89.40	2	40.39
Grand Rapids, Mich.	158,700	25.09	4.40	29.48	30	15.55
Hartford, Conn.	168,300	40.40	4.89	45.28	14	20.00
Indianapolis, Ind.	374,300	32.62	1.12	33.73	24	13.51
Jersey City, N. J.	321,500	14.88	1.83	16.70	62	9.49
Kansas City, Kans.	117,500	8.03	.66	8.68	69	3.62
Kansas City, Mo.	383,100	20.49	2.48	22.97	49	14.77
Louisville, Ky.	320,100	40.91	3.00	43.92	15	15.93
Lowell, Mass.	110,296	2.89	1.53	4.42	71	1.57
Lynn, Mass.	104,800	17.05	2.48	19.53	57	8.61
Memphis, Tenn.	178,900	38.47	4.71	43.17	18	19.45
Milwaukee, Wis.	531,100	35.09	4.01	39.10	21	18.14
Minneapolis, Minn.	441,700	25.26	3.00	28.26	35	10.94
Nashville, Tenn.	137,800	24.22	1.90	26.12	41	7.50
Newark, N. J.	466,300	53.36	4.96	58.32	8	29.85
New Bedford, Mass.	119,539	4.58	1.72	6.30	70	3.06
New Haven, Conn.	184,900	15.86	2.94	18.80	58	6.00
New Orleans, La.	424,400	16.74	2.01	18.76	59	6.95
New York, N. Y.	5,970,800	76.20	5.87	82.09	4	46.83
Norfolk, Va.	179,200	10.16	1.65	11.80	65	6.37
Oakland, Calif.	267,300	35.16	5.72	40.88	20	17.40
Omaha, Nebr.	219,200	9.35	1.25	10.60	66	5.56
Paterson, N. J.	143,800	19.51	4.04	23.55	45	16.01
Philadelphia, Pa.	2,035,900	26.67	3.63	30.30	29	15.53
Pittsburgh, Pa.	642,700	23.36	4.57	27.93	36	12.88

<sup>1</sup> State census 1925.

TABLE 5.—PER CAPITA EXPENDITURE FOR NEW BUILDINGS, NEW HOUSEKEEPING DWELLINGS, AND FOR ADDITIONS AND REPAIRS TO OLD BUILDINGS IN 72 CITIES IN THE FIRST SIX MONTHS OF 1927—Continued

City and State	Estimated population July 1, 1927	Per capita expenditure for—			Rank in per capita expenditure for all buildings	Per capita expenditure for new house-keeping dwelling
		New buildings	Repairs, additions, and alterations	All buildings		
Providence, R. I.	280,600	\$37.29	\$5.98	\$43.27	17	\$14.68
Reading, Pa.	114,500	18.63	4.47	23.11	47	7.20
Richmond, Va.	191,800	25.12	3.22	28.34	34	15.35
Rochester, N. Y.	234,500	30.06	3.68	33.74	23	17.67
St. Louis, Mo.	839,200	16.01	2.18	18.19	60	9.66
St. Paul, Minn.	250,100	20.30	2.92	23.22	46	11.96
Salt Lake City, Utah	135,700	18.15	1.57	19.72	55	14.77
San Antonio, Tex.	211,400	27.93	1.19	29.12	31	13.09
San Diego, Calif.	115,300	65.00	5.65	70.65	5	40.83
San Francisco, Calif.	576,000	39.64	3.90	43.55	16	29.87
Scranton, Pa.	143,900	23.03	1.89	24.92	43	4.42
Somerville, Mass.	101,600	18.50	2.49	20.99	52	10.28
Spokane, Wash.	109,000	12.11	1.57	13.68	63	10.25
Springfield, Mass.	147,400	28.17	6.38	34.55	22	19.75
Syracuse, N. Y.	197,000	41.64	4.64	46.24	12	24.68
Tacoma, Wash.	107,200	23.62	3.00	26.62	38	13.97
Tampa, Fla.	107,800	22.68	4.25	26.94	37	9.65
Toledo, Ohio	304,000	24.05	4.76	28.80	33	13.46
Trenton, N. J.	136,700	19.51	3.21	22.73	50	9.08
Tulsa, Okla.	150,000	45.56	1.82	47.38	11	17.48
Utica, N. Y.	103,400	11.07	1.91	12.98	64	7.74
Washington, D. C.	540,000	37.63	4.09	41.72	19	23.74
Wilmington, Del.	126,400	22.07	3.98	26.05	42	10.03
Worcester, Mass.	195,500	20.45	6.16	26.61	39	13.60
Yonkers, N. Y.	118,800	124.96	6.22	131.19	1	102.51
Yonkers, N. Y.	169,400	27.70	1.15	28.85	32	17.12
Total, 80 cities	<sup>2</sup> 32,280,223	<sup>2</sup> 42.94	<sup>2</sup> 4.28	<sup>2</sup> 47.22		<sup>2</sup> 25.69

<sup>2</sup> Including 8 cities not shown in distribution.

Of the 80 cities from which reports were received for the first half of 1927 estimates of population as of July 1, 1927, were made by the Bureau of the Census for 70. For two others State census figures of 1925 were used. As the Census Bureau did not estimate the population for the other 8 cities, and as they were not in States where a census was made in 1925, no population figures were obtainable for that date. For this reason no data are presented in this table for the cities of Akron, Atlanta, Bridgeport, Houston, Los Angeles, Oklahoma City, Portland (Oreg.), or Seattle. Data for these cities are, however, included in the totals, the 1920 census figures being used. Data for these cities are included in the total however, and in the computation they have been credited the population of the last available estimate. No estimate has been made for some cities because they showed a decrease in population between 1910 and 1920, nor for other cities because they were growing faster than the normal rate.

The total per capita expenditure for all buildings in these 80 cities was \$47.22, and of this amount \$42.94 was spent for the erection of new buildings and \$4.28 for repairs to old buildings. Of the amount spent for new buildings \$25.69 was for the erection of housekeeping dwellings. The largest per capita expenditure was in Yonkers, N. Y., where \$131.19 per person was expended on buildings in the first half of 1927. Fort Worth, Tex., and Flint, Mich., followed in order, the former with a per capita expenditure of \$89.40 and the latter of

\$83.45. The lowest amount was in El Paso, Tex., where only \$4.26 was spent in this period.

### Housing in Relation to Population

TABLE 6 gives detailed information for building permits issued in 78 cities in the first half of 1926 and for 80 cities in the first half of 1927. Part 1 of the table gives the number and cost of each kind of dwelling, the number of families provided for by each type of house, and the ratio of families provided for to each 10,000 of population.

It will be noted that the ratio of families provided for is based both on the 1920 census and on the population as estimated by the Census Bureau for the specified year.

The 78 cities from which reports were received for the first half of 1926 provided for 207,231 families, or at the rate of 73.2 families to each 10,000 of population, according to the 1920 census, or of 65.6 families to each 10,000 inhabitants, according to the population as estimated by the Census Bureau for July 1, 1926. The 80 cities reporting for the first half of 1927 provided for only 187,970 families, a ratio of 66 families to each 10,000 of population, according to the 1920 census, or 58.2 according to the 1927 estimate of population.

The following cities were the five leading home builders in 1926 and in 1927. The ratio shown is based on the population as estimated for the specified year.

1926		1927	
San Diego.....	157.1	Yonkers.....	172.4
Yonkers.....	144.8	San Diego.....	132.8
Houston.....	125.1	Flint.....	121.3
Detroit.....	116.9	Fort Worth.....	110.7
New York.....	114.7	New York.....	99.2

Part 2 of the table shows the number and the cost of nonresidential buildings in each of the cities reporting.

Part 3 gives the number and the cost of additions and repairs to old buildings, the grand total of the number and cost of new buildings and repairs to old buildings, the number and cost of installations, and the rank in cost of construction of the cities reporting.

During the first half of 1927 there were 97,179 permits issued, in the 80 cities reporting, for repairs and alterations to existing buildings at a cost of \$138,154,250. The number of permits for repairs in the 78 cities reporting in the like period of 1926 was 90,364 and the expenditure for such work was \$134,898,195.

The cities which reported on installations in the first six months of 1927 showed 36,645 such permits and an expenditure of \$18,485,848. The cities reporting for the first half of 1926 issued permits for 34,907 installations to cost \$19,534,750.

The grand total for all new buildings, together with repairs to old buildings, was 263,689 in the first half of 1927 and 275,710 in the first half of 1926. The total estimated cost of these operations in the 80 cities reporting was \$1,524,389,694 in the period scheduled in 1927, and \$1,609,684,124 in the corresponding period of 1926.

Following is a list of the five leading cities for each of the periods and the total amount expended for construction work in each city:

	1926	1927
New York.....	\$510,263,696	\$490,119,588
Chicago.....	183,577,891	210,210,475
Detroit.....	96,204,092	78,742,327
Philadelphia.....	70,379,825	61,683,600
Los Angeles.....	63,161,395	58,192,977

It will be noted that Chicago was the only city of these five leading cities which spent more for construction during the first half of 1927 than during the first half of 1926.

TABLE 6.—NUMBER AND ESTIMATED COST OF BUILDINGS (NEW CONSTRUCTION, AND REPAIRS, ALTERATIONS, AND ADDITIONS TO OLD BUILDINGS) COVERED BY PERMITS ISSUED IN THE FIRST HALF OF 1926 AND OF 1927, BY INTENDED USE OF BUILDINGS

PART 1.—NEW RESIDENTIAL BUILDINGS

City and State	First half of each year	Housekeeping dwellings														
		One-family dwellings			Two-family dwellings			One-family and two-family dwellings with stores			Multi-family dwellings			Multi-family dwellings with stores		
		Number	Cost	Families	Number	Cost	Families	Number	Cost	Families	Number	Cost	Families	Number	Cost	Families
Akron, Ohio.....	1926	1,041	\$5,036,763	1,041							3	\$64,500	21			
	1927	1,229	6,158,590	1,229							24	778,500	212			
Albany, N. Y.....	1926	172	1,975,950	172	55	\$1,284,000	110	1	\$10,000	2	8	1,132,000	119			
	1927	140	2,075,500	140	56	1,483,500	112	1	9,000	1	1	16,000	4	2	\$48,000	12
Atlanta, Ga.....	1926	630	2,465,700	630	146	332,397	292	9	38,800	12	28	313,700	170	1	10,500	4
	1927	664	2,425,560	664	165	413,300	330	9	15,450	11	43	655,150	341			
Baltimore, Md.....	1926	2,765	10,515,000	2,765	3	17,000	6	22	104,500	27	9	720,000	250	1	60,000	25
	1927	2,115	8,338,000	2,115				5	26,000	6	8	520,000	103			
Birmingham, Ala.....	1926	1,529	3,479,745	1,529	11	6,550	22	3	6,800	3	21	547,000	248	3	125,000	42
	1927	1,324	4,265,509	1,324	11	61,750	22	7	39,125	8	43	1,595,625	444	4	90,625	27
Boston, Mass.....	1926	332	1,975,538	332	426	4,236,750	852	1	10,000	2	139	3,385,000	373	1	13,000	3
	1927	265	1,637,000	265	403	3,678,503	806	2	42,000	4	197	4,338,800	1,190	50	1,069,500	260
Bridgeport, Conn.....	1926	63	291,750	63	16	135,200	32	12	127,600	22						
	1927	90	555,500	90	42	323,750	84				33	316,250	110			
Buffalo, N. Y.....	1926	893	3,582,435	893	276	1,034,470	552	55	674,225	84	10	448,030	147	23	412,700	99
	1927	666	2,654,450	666	262	1,310,150	524	53	558,100	83	19	2,136,000	512	15	185,400	52
Cambridge, Mass.....	1926	16	168,000	16	38	371,800	76				18	1,241,000	331			
	1927	29	331,900	29	56	516,500	112				32	1,272,500	282			
Camden, N. J.....	1926	358	1,456,100	358	15	88,400	30									
	1927	246	968,050	246				14	77,300	19	3	180,000	50			
Canton, Ohio.....	1926	383	1,791,275	383	3	25,000	6									
	1927	238	943,450	238	6	48,050	12	2	10,000	3	3	140,000	40			
Chicago, Ill.....	1926	3,675	24,169,850	3,675	1,241	13,780,100	2,482	167	2,519,900	232	942	64,203,400	12,745	79	7,672,000	1,187
	1927	3,325	21,413,000	3,325	1,257	14,810,700	2,514	151	2,426,600	200	1,173	79,782,900	15,686	119	13,141,200	2,004
Cincinnati, Ohio.....	1926	827	5,383,300	827	97	1,088,000	194	1	15,000	2	28	1,115,000	321	1	26,000	8
	1927	848	5,987,883	848	173	1,746,750	346				25	2,016,500	529			
Cleveland, Ohio.....	1926	1,104	5,899,500	1,104	503	4,831,000	1,006	28	450,000	46	54	2,186,000	456	39	1,335,000	222
	1927	859	4,638,600	859	308	2,946,000	616	8	122,000	11	28	1,470,500	431	6	252,000	43
Columbus, Ohio.....	1926	1,104	5,103,350	1,104	247	1,907,500	494	12	137,500	19	10	216,000	52	3	74,000	16
	1927	703	3,504,200	703	146	1,179,300	292	3	35,000	6	30	1,039,500	180	15	653,500	115
Dallas, Tex.....	1926	993	2,948,810	993	177	833,935	354	3	27,500	6	83	2,679,750	802	2	22,500	12
	1927	368	900,696	368	77	299,850	154				13	166,500	52			
Dayton, Ohio.....	1926	255	1,213,968	255	38	266,334	76	21	444,225	21	7	162,000	54			
	1927	321	1,513,420	321	162	436,487	324				20	514,000	114	4	184,600	25

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Denver, Colo.	1926	780	3,434,500	789	39	301,500	78			18	1,356,500	700				
	1927	714	3,397,300	714	12	91,000	24			7	263,000	150				
Des Moines, Iowa	1926	244	861,850	244						3	45,000	18	5	104,000	30	
	1927	166	747,290	166	3	23,400	6			2	29,000	12				
Detroit, Mich.	1926	6,143	28,806,973	6,143	1,836	14,714,777	3,672	10	252,452	26	275	13,364,815	4,569	131	4,040,706	666
	1927	3,087	16,288,857	3,087	1,195	8,665,481	2,390	15	123,790	22	306	10,685,362	3,325	75	2,148,162	412
Duluth, Minn.	1926	274	1,323,919	274							1	14,000	4			
	1927	169	811,614	169	1	6,800	2									
El Paso, Tex.	1926	47	175,713	47							6	105,460	103			
	1927	22	117,815	22							7	33,350	21	1	9,500	4
Fall River, Mass.	1926	60	281,950	60	22	165,100	44	1	8,000	2	10	104,800	30			
	1927	88	477,805	88	16	115,950	32	3	40,000	4	9	130,184	37			
Flint, Mich.	1926	622	2,415,755	622	4	32,880	8	4	41,386	4						
	1927	1,599	5,933,926	1,599	30	190,042	60	7	53,457	13	12	144,241	53	1	30,000	6
Fort Worth, Tex.	1926	1,110	4,765,054	1,110	13	93,591	26	6	56,296	10	29	241,300	90	1	23,143	10
	1927	962	5,277,219	962	291	490,000	582	19	201,415	27	36	335,805	119	34	304,100	121
Grand Rapids, Mich.	1926	639	2,812,025	639	18	107,850	36	7	70,400	11						
	1927	595	2,410,750	595	8	51,000	16				1	6,000	4			
Hartford, Conn.	1926	87	620,642	87	128	1,205,000	256	2	24,500	3	119	2,362,200	844	17	677,000	221
	1927	63	584,194	63	69	934,649	198	2	16,000	4	53	1,289,771	347	11	542,000	127
Houston, Tex.	1926	1,278	5,343,317	1,278	108	738,128	216	12	91,831	18	124	1,842,383	551			
	1927	1,565	4,644,013	1,565	220	1,672,000	440	11	151,000	20	103	1,726,350	515			
Indianapolis, Ind.	1926	811	3,554,035	811	120	574,980	240	1	5,600	2	12	905,000	195	1	120,000	40
	1927	820	3,658,004	820	100	552,845	200				18	847,600	298			
Jersey City, N. J.	1926	6	49,000	6	179	1,393,500	358	12	232,500	24	52	3,331,500	954	9	587,000	131
	1927	6	44,500	6	73	578,700	146	14	147,500	22	30	2,154,000	668	2	125,000	24
Kansas City, Kans.	1926	388	979,225	388							5	15,000	8	2		
	1927	217	425,200	217												
Kansas City, Mo.	1926	1,159	4,500,550	1,159	48	397,500	96	3	14,500	4	61	1,803,000	1,017	2	127,000	26
	1927	643	2,842,400	643	16	122,500	32	2	13,000	4	71	2,564,800	1,448	2	115,000	60
Los Angeles, Calif.	1926	5,091	18,988,953	5,091	549	3,875,956	1,098				345	9,666,621	4,068			
	1927	4,224	16,451,840	4,224	485	3,724,148	970				496	11,661,850	5,443			
Louisville, Ky.	1926	1,076	5,082,050	1,076	145	1,850,000	290	55	50,900	92	45	1,071,000	228	6	400,000	39
	1927	601	3,930,050	601	37	118,000	74	4	51,300	7	21	641,400	90	9	358,800	61
Lowell, Mass.	1926	47	180,000	47	11	65,300	22	2	9,000	3						
	1927	37	155,900	37	3	17,800	6									
Lynn, Mass.	1926	98	492,250	98	38	321,300	76				26	625,700	194			
	1927	55	306,300	55	31	270,400	62				12	325,500	113			
Memphis, Tenn.	1926	683	3,041,460	683	143	534,750	286	2	9,100	3	51	1,104,300	398	1	52,000	29
	1927	477	1,992,200	477	113	318,500	226	19	50,700	22	64	1,117,900	407			
Milwaukee, Wis.	1926	937	5,260,100	937	223	1,893,100	446	27	364,406	36	26	793,150	236	13	445,000	71
	1927	765	4,261,575	765	281	2,369,760	562	38	547,800	60	45	1,719,000	636	26	738,000	130
Minneapolis, Minn.	1926	1,241	5,354,240	1,241	61	527,500	122				38	1,002,835	313			
	1927	752	3,390,440	752	67	530,700	134				35	909,080	343			
Nashville, Tenn.	1926	302	819,750	302	3	14,500	6				6	100,000	40			
	1927	276	800,350	276	3	31,000	6				6	202,000	80			
Newark, N. J.	1926	231	1,920,450	231	256	3,309,978	512				117	4,638,100	820			
	1927	105	1,316,400	105	247	2,898,050	494	11	188,500	14	160	9,131,900	1,931	3	882,000	63
New Bedford, Mass.	1926	61	376,000	61	17	190,000	34									
	1927	48	298,700	48	5	43,000	10									
New Haven, Conn.	1926	55	519,476	55	21	191,600	42				39	995,100	317			
	1927	60	580,000	60	9	75,000	18				20	455,000	229		24,000	3

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TABLE 6.—NUMBER AND ESTIMATED COST OF BUILDINGS (NEW CONSTRUCTION, AND REPAIRS, ALTERATIONS, AND ADDITIONS TO OLD BUILDINGS) COVERED BY PERMITS ISSUED IN THE FIRST HALF OF 1926 AND OF 1927, BY INTENDED USE OF BUILDINGS—Continued

## PART 1.—NEW RESIDENTIAL BUILDINGS—Continued

City and State	First half of each year	Housekeeping dwellings															
		One-family dwellings			Two-family dwellings			One-family and two-family dwellings with stores			Multi-family dwellings			Multi-family dwellings with stores			
		Number	Cost	Families	Number	Cost	Families	Number	Cost	Families	Number	Cost	Families	Number	Cost	Families	
New Orleans, La.	1926	315	\$1,162,500	315	219	\$968,215	438	40	\$285,128	75	43	\$312,300	130	28	\$123,650	84	
	1927	252	1,035,621	252	276	907,845	552	27	233,669	45	26	730,846	84	5	42,000	25	
New York, N. Y.:																	
The Bronx	1926	816	5,899,050	816	709	7,178,952	1,418	99	1,118,698	181	884	75,847,500	18,936	34	6,009,000	1,403	
	1927	676	5,115,100	676	742	7,705,500	1,484	28	399,700	50	617	63,296,000	15,433	26	3,843,000	772	
Brooklyn	1926	3,010	18,602,550	3,010	1,227	11,886,700	2,454	458	5,586,000	916	1,344	64,467,000	16,902				
	1927	2,529	16,822,300	2,529	1,415	14,467,500	2,830	462	5,964,000	924	862	38,605,500	9,646	144	8,304,000	2,082	
Manhattan	1926	4	762,000	4	2	70,000	4				105	34,555,000	5,266				
	1927	2	75,500	2	2	28,500	4				78	32,140,000	4,306				
Queens	1926	6,703	39,432,600	6,703	978	8,932,650	1,956	603	5,449,200	988	530	18,842,000	5,788	28	1,771,000	420	
	1927	6,197	37,265,200	6,197	1,329	11,003,550	2,658	295	2,723,500	506	585	26,079,100	7,879	29	1,669,000	326	
Richmond	1926	657	3,023,690	657	43	270,300	86	23	171,650	32	1	13,000					
	1927	731	3,398,179	731	51	365,600	102	35	323,000	57				1	30,000	9	
Norfolk, Va.	1926	171	721,150	171	5	14,100	10	3	25,000	6	8	129,400	64				
	1927	170	841,975	170	2	8,000	4				9	292,000	138				
Oakland, Calif.	1926	1,813	6,094,618	1,813	86	525,665	172	12	69,142	13	73	1,230,890	536	14	349,000	108	
	1927	958	3,341,088	958	34	176,660	68	8	39,373	8	48	903,030	423	7	189,656	64	
Oklahoma City, Okla.	1926	457	1,461,283	457	33	189,000	66	1	10,000	2	12	142,000	55	1	15,000	6	
	1927	582	2,200,000	582	56	263,960	112	1	6,000	1	22	579,000	193	1	18,000	8	
Omaha, Nebr.	1926	453	2,079,325	453	14	164,500	28				9	257,500	85				
	1927	193	933,220	193	3	27,000	6				30	534,500	99	10	87,000	38	
Paterson, N. J.	1926	106	547,470	106	116	782,670	232	13	141,800	20	30	995,500	478	12	173,000	50	
	1927	108	529,266	108	66	452,350	132	14	152,000	17	50	3,880,835	1,192	6	736,165	75	
Philadelphia, Pa.	1926	5,322	25,542,585	5,322	31	177,010	62	165	861,630	186	30	6,567,170	1,670	33	1,627,700	459	
	1927	4,771	22,698,375	4,771	13	180,000	26	132	538,040	151	34	538,000	263	3	82,000	19	
Pittsburgh, Pa.	1926	979	7,496,125	979	51	619,000	102	26	326,400	32	9	1,395,000	287	3	62,000	15	
	1927	1,030	6,374,806	1,030	38	321,500	76	15	123,000	17	11	2,955,200	940				
Portland, Oreg.	1926	1,841	7,883,635	1,841	60	600,340	120				73	2,105,000	550	3	240,000	45	
	1927	1,420	6,019,760	1,420	30	225,000	60				31	357,000	87				
Providence, R. I.	1926	231	2,425,040	231	111	1,548,560	222	11	95,900	17	28	602,500	155	4	142,000	31	
	1927	254	1,968,700	254	121	1,240,900	242	10	165,000	16	25	15,000	3	1	15,000	3	
Reading, Pa.	1926	193	1,041,300	193				4	21,500	4	1	123,000	24				
	1927	105	693,000	105				1	8,000	2	5						

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Richmond, Va.....	1926	566	2,914,695	566	19	134,407	38			18	570,000	190				
	1927	324	1,450,528	324	34	280,950	68			36	1,213,500	347				
Rochester, N. Y.....	1926	674	3,767,138	674	51	514,350	102	6	75,600	10	19	765,090	291	22	460,700	101
	1927	654	3,679,630	654	46	427,500	92	2	13,000	2	22	1,125,500	484	20	488,640	144
St. Louis, Mo.....	1926	1,105	3,898,288	1,105	376	503,160	752	39	362,050	44	322	7,049,100	3,052	18	1,251,000	421
	1927	838	2,960,675	838	200	1,329,000	400	16	126,500	20	228	3,057,500	1,353	9	630,000	98
St. Paul, Minn.....	1926	716	3,774,285	716	57	547,855	114	6	102,800	6	25	839,400	490	1	100,000	40
	1927	416	2,254,992	416	24	232,920	48				7	340,800	125	4	163,200	12
Salt Lake City, Utah..	1926	302	1,162,650	302	10	47,000	20				6	303,000	224			
	1927	264	1,112,710	264	22	114,800	44				11	776,500	240			
San Antonio, Tex.....	1926	870	2,369,562	870	16	88,825	32	4	9,300	4	12	298,200	200	1	41,000	30
	1927	788	2,400,468	788	16	109,645	32	5	19,080	5	15	238,800	150			
San Diego, Calif.....	1926	1,536	4,681,505	1,536	39	256,066	78	17	172,670	24	22	217,846	90			
	1927	1,238	3,977,843	1,238	64	288,226	128	10	63,040	21	40	378,400	144			
San Francisco, Calif..	1926	1,883	8,786,217	1,883	160	1,148,650	320	5	27,000	10	170	4,501,551	2,088	5	147,900	47
	1927	1,586	7,131,778	1,586	163	1,228,409	326	1	5,000	1	219	8,731,152	3,208	3	107,500	56
Scranton, Pa.....	1926	30	217,700	30	6	43,000	12	1	32,000	2	8	64,500	24			
	1927	90	409,650	90	24	182,500	48	5	49,700	12						
Seattle, Wash.....	1926	1,981	6,586,985	1,981							55	2,823,900	822			
	1927	1,690	5,831,300	1,690							57	3,693,600	855			
Somerville, Mass.....	1927	4	16,000	4	41	395,770	82	1	10,000	2	30	622,500	176			
Spokane, Wash.....	1926	369	1,213,269	369												
	1927	282	1,013,700	282												
Springfield, Mass.....	1926	261	1,176,030	261	107	729,600	214				1	100,000	52			
	1927	246	1,106,200	246	57	375,100	114	1	6,500	2	21	900,400	302	2	11,500	3
Syracuse, N. Y.....	1926	346	2,253,850	346	40	423,500	80	6	48,000	9	5	1,424,000	461			
	1927	533	3,367,900	533	71	625,500	142	2	13,000	3	15	169,000	77	4	192,000	41
Tacoma, Wash.....	1926	536	1,321,075	536								611,000	159	6	245,000	45
	1927	409	1,107,670	409								344,000	152			
Tampa, Fla.....	1927	437	945,155	437				2	10,500	2	7	387,000	108			
Toledo, Ohio.....	1926	643	2,654,639	643	20	152,250	40	5	46,500	7	8	80,800	31	1	3,500	3
	1927	799	3,310,275	799	35	247,850	70	6	74,500	10	10	325,000	103	6	157,000	22
Trenton, N. J.....	1926	235	1,069,894	235								339,500	105	7	120,150	28
	1927	203	1,231,200	203				1	5,000	2						
Tulsa, Okla.....	1926	309	1,664,992	309	33	55,100	66				7	184,750	81	1	4,500	3
	1927	422	2,058,885	422	39	155,300	78	1	6,000	1	11	387,200	136	1	15,000	3
Utica, N. Y.....	1926	192	1,195,000	192	34	298,500	68	2	30,000	2	1	10,000	4			
	1927	110	696,200	110	12	104,500	24									
Washington, D. C.....	1926	2,021	12,983,970	2,021	5	29,000	10	6	119,000	10	93	11,879,000	2,779	12	1,502,000	332
	1927	1,069	6,774,030	1,069	5	30,300	10	4	50,500	6	42	5,431,000	1,347	3	532,000	151
Wilmington, Del.....	1926	181	1,107,879	181				2	10,700	2	1	62,000	20			
	1927	183	1,217,325	183								50,000	12			
Worcester, Mass.....	1926	320	1,602,135	320	60	575,800	120	2	9,000	2	72	1,164,000	282	1	18,000	5
	1927	273	1,694,890	273	44	379,700	88	4	30,500	5	37	554,100	141			
Yonkers, N. Y.....	1926	245	2,504,100	245	41	589,500	82				76	6,796,800	1,150	11	1,804,000	203
	1927	286	2,662,185	286	79	891,300	158				82	8,349,800	1,551	2	275,000	53
Youngstown, Ohio.....	1926	472	2,432,300	472	15	128,400	30	13	98,500	14	8	197,600	39	2	50,000	12
	1927	520	2,437,700	520	25	223,000	50	11	100,000	15	5	82,000	21	2	58,000	16
Total (78 cities) ..	1926	78,483	374,929,350	78,483	12,048	102,929,851	24,096	2,056	21,117,089	3,342	6,888	367,478,406	95,013	550	31,264,464	6,297
(80 cities) ..	1927	65,188	319,616,929	65,188	11,618	98,141,450	23,236	1,501	16,207,139	2,475	6,515	355,957,616	88,916	707	39,384,233	8,155

TABLE 6.—NUMBER AND ESTIMATED COST OF BUILDINGS (NEW CONSTRUCTION, AND REPAIRS, ALTERATIONS, AND ADDITIONS TO OLD BUILDINGS) COVERED BY PERMITS ISSUED IN THE FIRST HALF OF 1926 AND OF 1927, BY INTENDED USE OF BUILDINGS—Continued

PART 1.—NEW RESIDENTIAL BUILDINGS—Continued

City and State	First half of each year	Total families provided for	Population of city		Ratio of families provided for to each 10,000 of population based on—		Nonhousekeeping dwellings						Total new residential dwellings	
			Census of 1920	Census estimate for year specified	Census of 1920	Census estimate for year specified	Hotels		Lodging houses		Other		Number	Cost
							Number	Cost	Number	Cost	Number	Cost		
Akron, Ohio	1926	1,062	208,435	(1)	51.0	1	\$862,972					1,045	\$5,964,235	
	1927	1,441		(1)	69.1							1,253	6,937,090	
Albany, N. Y.	1926	403	113,344	119,000	35.6	33.9						236	4,401,950	
	1927	269		119,500	23.7	22.5				1	\$300,000	201	3,932,000	
Atlanta, Ga.	1926	1,108	200,616	(1)	55.2							814	3,161,097	
	1927	1,346		(1)	67.1							881	3,509,460	
Baltimore, Md.	1926	3,073	733,826	808,000	41.9	38.0			2	650,000		2,802	12,066,500	
	1927	2,224		819,000	30.3	27.2			1	25,000		2,129	8,909,000	
Birmingham, Ala.	1926	1,844	178,806	211,000	103.1	87.4	3	1,605,750	2	18,000		1,572	5,788,845	
	1927	1,825		215,400	102.1	84.7			1	93,750		1,390	6,146,834	
Boston, Mass.	1926	2,062	748,060	787,000	27.6	26.2	3	1,458,000	4	955,000		906	12,033,288	
	1927	2,525		793,100	33.8	31.8			3	1,575,000		920	12,340,803	
Bridgeport, Conn.	1926	117	143,535	(1)	8.2							91	554,550	
	1927	284		(1)	19.8							165	1,195,500	
Buffalo, N. Y.	1926	1,775	506,775	544,000	35.0	32.6			1	300,000		1,258	6,451,860	
	1927	1,837		550,000	36.2	33.4						1,015	6,844,100	
Cambridge, Mass.	1926	423	109,694	122,000	38.6	34.7						72	1,780,800	
	1927	423		123,900	38.4	34.1						117	2,120,900	
Camden, N. J.	1926	388	116,309	131,000	33.4	29.6						373	1,544,500	
	1927	315		133,100	27.1	23.7						263	1,225,350	
Canton, Ohio	1926	389	87,091	110,000	44.7	35.4						386	1,816,275	
	1927	293		113,300	33.6	25.9						249	1,141,500	
Chicago, Ill.	1926	20,321	2,701,705	3,648,000	75.2	66.7	20	5,905,000	1	\$150,000	1	20,000	6,126	118,420,250
	1927	23,729		3,100,500	87.8	76.5	22	3,532,000			4	3,540,000	6,051	138,646,400
Cincinnati, Ohio	1926	1,352	401,247	411,000	33.7	32.9						954	7,027,300	
	1927	1,723		412,200	42.9	41.8						1,046	9,751,133	
Cleveland, Ohio	1926	2,834	796,841	960,000	35.6	29.5	2	266,000	1	30,000		1,731	14,997,500	
	1927	1,960		984,500	24.6	19.9	1	175,000				1,210	9,604,100	
Columbus, Ohio	1926	1,685	237,031	285,000	71.1	59.1					2	150,000	1,378	7,588,350
	1927	1,296		291,100	54.6	44.5					1	60,000	898	6,471,500
Dallas, Tex.	1926	2,167	158,976	200,000	136.3	108.4						1,258	6,512,495	
	1927	474		208,600	36.1	27.5						458	1,867,046	
Dayton, Ohio	1926	506	152,559	177,000	26.6	22.9						322	2,206,527	
	1927	784		180,400	51.4	43.5	1	120,000				507	2,648,507	
Denver, Colo.	1926	1,567	256,491	285,000	61.1	55.0						846	5,092,500	
	1927	888		298,800	34.6	30.6					1	16,000	734	3,767,300

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Des Moines, Iowa.....	1926	292	126,468	146,000	23.1	20.0					252	1,010,850
	1927	184		148,900	14.5	12.4					171	799,690
Detroit, Mich.....	1926	15,076	993,678	1,290,000	151.7	116.9	10	8,605,700		1	8,406	70,115,423
	1927	9,236		1,334,500	92.9	69.2	6	1,243,240		7	4,691	42,561,192
Duluth, Minn.....	1926	278	98,917	113,000	28.1	24.6	1	105,000			276	1,442,919
	1927	171		114,700	17.3	14.9					170	818,414
El Paso, Tex.....	1926	150	77,560	109,000	19.3	13.8					53	281,173
	1927	47		113,500	6.1	4.1					30	160,665
Fall River, Mass.....	1926	136	120,485	131,000	11.3	10.4					93	559,850
	1927	161		132,600	13.4	12.1					116	763,939
Flint, Mich.....	1926	634	91,599	137,000	69.2	46.3					630	2,490,021
	1927	1,731		142,700	189.0	121.3			1	13,000	1,650	6,364,666
Fort Worth, Tex.....	1926	1,246	106,482	159,000	117.0	78.4	1	1,350,000			1,160	6,529,384
	1927	1,811		163,600	170.1	110.7			56	704,141	1,398	7,312,680
Grand Rapids, Mich.....	1926	686	137,634	156,000	49.8	44.0					664	2,990,275
	1927	615		158,700	44.7	38.8					604	2,467,750
Hartford, Conn.....	1926	1,411	138,036	164,000	102.2	86.0				1	354	4,951,342
	1927	679		168,300	49.2	40.3					198	3,366,614
Houston, Tex.....	1926	2,063	138,276	<sup>a</sup> 164,954	149.2	125.1	4	4,649,336		1	1,527	12,667,495
	1927	2,540		(1)	183.7				2	62,000	1,901	8,255,363
Indianapolis, Ind.....	1926	1,288	314,194	367,000	41.0	35.1				1	946	5,445,615
	1927	1,228		374,300	39.1	32.8					938	5,058,449
Jersey City, N. J.....	1926	1,473	298,103	318,000	49.4	46.3					258	5,593,500
	1927	866		321,500	29.1	26.9	1	160,000			126	3,209,500
Kansas City, Kans.....	1926	406	101,177	117,000	40.1	34.7					395	1,001,725
	1927	217		117,500	21.4	18.5					217	425,200
Kansas City, Mo.....	1926	2,302	324,410	375,000	71.0	61.4	5	510,000			1,278	7,352,550
	1927	2,187		383,100	67.4	57.1	1	20,000		1	736	5,877,700
Los Angeles, Calif.....	1926	10,257	576,673	(1)	177.9		13	2,516,600			5,998	35,048,130
	1927	10,637		(1)	184.5		11	1,485,000			5,216	33,322,838
Louisville, Ky.....	1926	1,725	234,891	311,000	73.4	55.5					1,327	8,453,950
	1927	833		320,100	35.5	26.0					672	5,093,550
Lowell, Mass.....	1926	72	112,759	<sup>a</sup> 110,296	6.4	6.5					60	254,300
	1927	43		(1)	3.8						40	173,700
Lynn, Mass.....	1926	368	99,148	104,000	37.1	35.4					162	1,439,250
	1927	230		104,800	23.2	21.9					98	902,200
Memphis, Tenn.....	1926	1,999	162,351	177,000	86.2	79.0					880	4,741,610
	1927	1,132		178,900	69.7	63.3					673	3,479,300
Milwaukee, Wis.....	1926	1,726	457,147	517,000	37.8	33.4	2	825,000		2	1,230	9,720,756
	1927	2,153		531,100	47.1	40.1	4	3,380,000		2	1,161	13,216,135
Minneapolis, Minn.....	1926	1,132	380,582	434,000	44.0	38.6	2	67,000			1,344	7,006,575
	1927	1,229		441,700	32.3	27.8	2	535,000		4	860	5,689,220
Nashville, Tenn.....	1926	348	118,342	137,000	29.4	25.4					311	934,250
	1927	362		137,800	30.6	26.3	1	500,000			286	1,533,350
Newark, N. J.....	1926	1,563	414,524	459,000	37.7	34.1					604	9,868,528
	1927	2,607		466,300	62.9	55.9					516	13,916,850
New Bedford, Mass.....	1926	95	121,217	<sup>a</sup> 119,539	7.8	7.9					78	566,000
	1927	61		(1)	5.0						54	365,700
New Haven, Conn.....	1926	414	162,537	182,000	25.5	22.7					116	1,748,176
	1927	307		184,900	16.8	16.6				1	89	1,110,000

<sup>1</sup> Not estimated by Census Bureau.

<sup>2</sup> July, 1925, estimate.

<sup>3</sup> State census Jan. 1, 1925.

TABLE 6.—NUMBER AND ESTIMATED COST OF BUILDINGS (NEW CONSTRUCTION, AND REPAIRS, ALTERATIONS, AND ADDITIONS TO OLD BUILDINGS) COVERED BY PERMITS ISSUED IN THE FIRST HALF OF 1926 AND OF 1927, BY INTENDED USE OF BUILDINGS—Continued

## PART 1.—NEW RESIDENTIAL BUILDINGS—Continued

City and State	First half of each year	Total families provided for	Population of city		Ratio of families provided for to each 10,000 of population based on—		Nonhousekeeping dwellings						Total new residential dwellings				
			Census of 1920	Census estimate for year specified	Census of 1920	Census estimate for year specified	Hotels		Lodging houses		Other		Number	Cost			
							Number	Cost	Number	Cost	Number	Cost					
New Orleans, La.....	1926	1,042	387,219	419,000	26.9	24.9	1	\$20,000					646	\$2,871,793			
	1927	958		424,400	24.7	22.6	1	631,304					587	3,581,285			
New York, N. Y.:																	
The Bronx.....	1926	22,754	5,620,048	5,924,000	120.9	114.7	1	20,000					2,543	96,073,200			
	1927	18,415														2,089	80,359,300
Brooklyn.....	1926	23,282									2	1,950,000				6,041	102,492,250
	1927	18,011									1	170,000				5,413	84,333,300
Manhattan.....	1926	5,274						5,970,800	105.3	99.2	19	35,293,000		19	\$7,165,500	149	78,145,500
	1927	4,312									8	9,206,000		13	2,232,000	103	43,682,000
Queens.....	1926	15,855									2	161,000				8,844	74,588,450
	1927	17,566									3	227,500		2	400,000	8,440	79,367,850
Richmond.....	1926	779														724	3,478,640
	1927	899														818	4,116,779
Norfolk, Va.....	1926	251	115,777	174,000	21.7	14.4						187	889,650				
	1927	312		179,200	26.9	17.4						181	1,141,975				
Oakland, Calif.....	1926	2,642	216,261	261,000	122.2	101.2	1	35,000	3	\$7,200	2	330,000	2,004	8,642,215			
	1927	1,521		267,300	70.3	56.9	2	313,000				1,057	4,962,807				
Oklahoma City, Okla..	1926	586	91,295	104,080	64.2	56.3	1	125,000				505	1,942,283				
	1927	896		(1)	98.1							662	3,066,960				
Omaha, Nebr.....	1926	481	191,601	215,400	25.1	22.3					2	132,000	469	2,375,825			
	1927	284		219,200	14.8	13.0						205	1,217,720				
Paterson, N. J.....	1926	495	135,875	143,000	36.4	34.6					1	2,500	276	2,095,940			
	1927	785		143,800	57.8	54.6						250	2,302,116				
Philadelphia, Pa.....	1926	6,837	1,823,779	2,008,000	37.5	34.0	2	635,000	1	110,000	2	197,000	5,559	32,140,225			
	1927	7,077		2,035,900	38.8	34.8					5	85,600	4,988	31,696,885			
Pittsburgh, Pa.....	1926	1,395	588,343	637,000	23.7	21.9	2	855,000			4	422,300	1,074	10,338,825			
	1927	1,425		642,700	24.2	22.2	1	240,000					1,098	8,516,306			
Portland, Oreg.....	1926	2,901	258,288	282,383	112.3	102.7	1	35,000					1,975	11,474,175			
	1927	2,075		(1)	80.3		2	550,000					1,486	9,139,760			
Providence, R. I.....	1926	557	237,595	275,000	23.4	20.3					1	550,000	382	4,976,500			
	1927	698		280,600	29.4	24.9							414	4,119,100			
Reading, Pa.....	1926	203	107,784	114,000	18.8	17.8							199	1,092,800			
	1927	131		114,500	12.2	11.4					1	287,000	112	1,111,000			
Richmond, Va.....	1926	794	171,567	189,000	46.3	42.0					1	1,000,000	604	4,619,102			
	1927	739		191,800	43.1	38.5							394	2,944,978			

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[1810]	Rochester, N. Y.-----	1926	1, 178	295, 750	321, 000	39.8	36.7	-----	-----	-----	-----	-----	-----	772	5, 582, 878
	1927	1, 376	-----	324, 500	46.5	42.4	-----	-----	-----	-----	-----	-----	-----	744	5, 734, 270
	St. Louis, Mo.-----	1926	5, 374	772, 897	830, 000	69.5	64.7	4	1, 383, 000	-----	-----	-----	-----	1, 864	14, 446, 598
	1927	2, 709	-----	839, 200	35.0	32.3	1	400, 000	-----	2	215, 000	-----	-----	1, 294	8, 718, 675
	St. Paul, Minn.-----	1926	1, 366	234, 698	248, 000	58.2	55.1	1	480, 000	-----	1	36, 000	-----	807	5, 880, 340
	1927	601	-----	250, 100	25.6	24.0	2	240, 000	-----	-----	-----	-----	-----	453	3, 231, 912
	Salt Lake City, Utah..	1926	546	118, 110	133, 000	46.2	41.1	-----	-----	-----	-----	-----	-----	318	1, 512, 650
	1927	548	-----	135, 700	46.4	40.4	-----	-----	-----	-----	-----	-----	-----	297	2, 004, 010
	San Antonio, Tex.-----	1926	1, 136	161, 379	205, 000	70.4	55.4	2	1, 000, 000	-----	-----	-----	-----	905	3, 806, 887
	1927	975	-----	211, 400	60.4	46.1	2	1, 400, 000	-----	-----	-----	-----	-----	826	4, 167, 993
	San Diego, Calif.-----	1926	1, 728	74, 683	110, 000	231.4	157.1	1	356, 000	-----	-----	-----	-----	1, 615	5, 684, 087
	1927	1, 531	-----	115, 300	205.0	132.8	-----	-----	-----	-----	-----	-----	-----	1, 352	4, 707, 509
	San Francisco, Calif.---	1926	4, 348	508, 676	567, 000	85.5	76.7	5	405, 000	-----	5	829, 500	-----	2, 233	15, 845, 818
	1927	5, 177	-----	576, 000	101.8	89.9	6	745, 000	-----	1	6, 600	-----	-----	1, 979	17, 955, 439
	Scranton, Pa.-----	1926	68	137, 783	143, 000	4.9	4.8	-----	-----	-----	-----	-----	-----	45	357, 200
	1927	150	-----	143, 900	10.9	10.4	-----	-----	-----	-----	-----	-----	-----	119	641, 850
	Seattle, Wash.-----	1926	2, 803	315, 312	(1)	88.9	-----	3	570, 000	1	25, 000	-----	-----	2, 040	10, 005, 885
	1927	2, 545	-----	(1)	80.7	-----	2	750, 000	1	800	-----	-----	-----	1, 750	10, 275, 700
	Somerville, Mass.-----	1927	264	93, 091	101, 600	28.4	26.0	-----	-----	-----	-----	-----	-----	76	1, 044, 270
	Spokane, Wash.-----	1926	369	104, 437	109, 000	35.3	33.9	-----	-----	-----	-----	-----	-----	369	1, 213, 269
	1927	335	-----	109, 000	32.1	30.7	-----	-----	-----	-----	-----	-----	-----	284	1, 117, 700
	Springfield, Mass.---	1926	780	129, 614	145, 000	60.2	53.8	-----	-----	-----	-----	-----	-----	387	2, 817, 530
	1927	823	-----	147, 400	63.5	55.8	-----	-----	-----	-----	-----	-----	-----	325	2, 911, 500
	Syracuse, N. Y.-----	1926	553	171, 717	184, 000	32.2	30.1	-----	-----	-----	-----	1	30, 000	402	3, 116, 350
	1927	882	-----	197, 000	51.4	44.8	1	250, 000	-----	-----	-----	-----	-----	628	5, 112, 400
Tacoma, Wash.-----	1926	688	96, 965	106, 000	71.0	64.9	1	42, 000	-----	-----	1	14, 000	545	1, 721, 075	
1927	517	-----	107, 200	53.3	48.2	-----	-----	-----	-----	-----	-----	-----	415	1, 494, 670	
Tampa, Fla.-----	1927	473	51, 608	107, 800	91.7	43.9	1	40, 000	-----	-----	-----	-----	448	1, 079, 955	
Toledo, Ohio.-----	1926	815	243, 164	294, 000	33.5	27.7	-----	-----	-----	-----	-----	-----	683	3, 350, 389	
1927	1, 012	-----	304, 000	41.6	33.3	-----	-----	-----	-----	-----	-----	-----	857	4, 092, 275	
Trenton, N. J.-----	1926	235	119, 289	134, 000	19.7	17.5	-----	-----	-----	-----	-----	-----	235	1, 069, 894	
1927	208	-----	136, 700	17.4	15.2	-----	-----	-----	-----	-----	-----	-----	205	1, 240, 700	
Tulsa, Okla.-----	1926	459	72, 075	133, 000	63.7	34.5	-----	-----	1	4, 000	1	6, 000	352	1, 929, 842	
1927	648	-----	150, 000	89.9	43.2	2	135, 000	2	27, 800	-----	-----	-----	478	2, 785, 185	
Utica, N. Y.-----	1926	266	94, 156	103, 000	28.3	25.8	-----	-----	-----	-----	-----	-----	229	1, 333, 500	
1927	134	-----	103, 400	14.2	13.0	-----	-----	-----	-----	-----	-----	-----	122	800, 700	
Washington, D. C.-----	1926	5, 152	437, 571	528, 000	117.7	97.6	2	450, 000	-----	-----	2	595, 000	2, 141	27, 557, 970	
1927	2, 583	-----	540, 000	59.0	47.8	2	1, 350, 000	-----	-----	-----	-----	-----	1, 125	14, 167, 830	
Wilmington, Del.-----	1926	203	110, 168	124, 000	18.4	16.4	-----	-----	-----	-----	-----	-----	184	1, 180, 579	
1927	195	-----	126, 400	17.7	15.4	-----	-----	-----	-----	-----	-----	-----	186	1, 308, 447	
Worcester, Mass.-----	1926	729	179, 754	193, 000	40.6	37.8	-----	-----	-----	-----	-----	-----	455	3, 368, 935	
1927	507	-----	195, 500	28.2	25.9	-----	-----	-----	-----	-----	-----	-----	359	2, 959, 190	
Yonkers, N. Y.-----	1926	1, 680	100, 176	116, 000	167.7	144.8	-----	-----	-----	-----	1	300, 000	474	11, 784, 400	
1927	2, 048	-----	118, 800	204.4	172.4	1	100, 000	-----	-----	-----	-----	-----	350	12, 278, 285	
Youngstown, Ohio.-----	1926	567	132, 358	165, 000	42.8	34.4	-----	-----	-----	-----	-----	-----	510	2, 906, 800	
1927	622	-----	169, 400	47.0	36.7	1	400, 000	-----	-----	-----	-----	-----	564	3, 300, 700	
Total (78 cities)---	1926	207, 231	28, 314, 695	31, 577, 223	73.2	65.6	119	72, 661, 358	9	329, 400	65	14, 420, 800	100, 218	985, 130, 718	
(80 cities)---	1927	187, 970	28, 459, 394	32, 280, 223	66.0	58.2	88	28, 178, 044	62	807, 741	52	13, 307, 372	85, 731	871, 600, 524	

1 Not estimated by Census Bureau.

2 July, 1925, estimate.

4 July, 1924, estimate.

5 See notes to details.

TABLE 6.—NUMBER AND ESTIMATED COST OF BUILDINGS (NEW CONSTRUCTION, AND REPAIRS, ALTERATIONS, AND ADDITIONS TO OLD BUILDINGS) COVERED BY PERMITS ISSUED IN THE FIRST HALF OF 1926 AND 1927, BY INTENDED USE OF BUILDINGS—Continued

## PART 2.—NEW NONRESIDENTIAL BUILDINGS

City and state	First half of each year	Amusement and recreation places		Churches		Factories, shops, etc.		Garages (public)		Garages (private)		Gasoline and service stations		Institutions		Office buildings	
		Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost
Akron, Ohio	1926			6	\$176,500	11	\$343,600			996	\$602,816	22	\$40,500				
	1927	2	\$18,350	6	200,171	15	40,600			1,048	324,601	28	56,509			79	\$2,816,785
Albany, N. Y.	1926					1	498,000	7	\$222,700	202	175,863	19	16,700			5	5,002,500
	1927	3	110,000	1	350,000	1	100,000	5	14,500	184	211,900	22	59,200				
Atlanta, Ga.	1926	3	50,500	4	99,000	3	160,000	6	453,500	194	21,232	20	57,350	1	\$240,000	4	1,465,000
	1927	6	90,500	7	231,850	2	145,000	3	74,100	182	18,827	18	57,825				
Baltimore, Md.	1926	6	81,000	4	275,000	22	275,500	3	135,000	1,671	974,090	22	88,500	4	1,150,000	3	95,000
	1927			8	382,000	8	428,000	5	147,000	1,731	871,100	11	53,000	1	100,000	2	10,000
Birmingham, Ala.	1926	2	19,265	11	177,500	18	316,243	8	137,000	130	17,515	17	115,500	4	123,500	2	494,000
	1927	33	631,226	12	201,750	23	120,750	15	135,360	270	42,719	29	136,875	3	674,812	11	57,562
Boston, Mass.	1926	3	220,000	3	275,000	20	367,400	23	2,702,000	662	596,131	29	84,300	2	1,020,000	14	2,496,250
	1927	1	50,000	3	77,000	8	253,500	8	522,000	510	387,955	8	41,150	4	899,000	4	2,021,000
Bridgeport, Conn.	1926	1	6,000	1	30,000	4	22,140	4	84,800	221	110,263	3	106,300			2	8,500
	1927	1	33,000			4	90,500	8	98,700	245	92,316	1	31,120	1	37,477	3	9,700
Buffalo, N. Y.	1926	6	693,000	5	289,800	31	1,120,050	15	111,250	1,330	506,671	78	361,050				
	1927	3	242,500	6	480,000	42	726,400	3	106,000	1,312	547,034	87	88,715	2	85,000	2	315,000
Cambridge, Mass.	1926			1	40,000	10	726,500	9	172,180	87	65,715	3	15,000				
	1927	1	75,000	1	87,000	27	608,200	4	32,500	348	72,745	6	25,500			3	302,500
Camden, N. J.	1926	2	48,000	3	14,000	20	318,200	2	37,000	226	102,690	5	28,200	2	370,595	2	130,000
	1927			1	85,530	11	85,530	2	12,000	399	217,107	8	42,100	1	112,000	5	158,200
Canton, Ohio	1926	1	300,000	3	100,000	8	102,450	12	61,800	313	67,981	13	17,850				
	1927	1	150,000	2	14,000	154	6,107,400	127	3,360,800	3,297	1,521,110	88	324,500	7	1,438,000	50	13,696,800
Chicago, Ill.	1926	16	10,370,000	11	771,500	147	5,471,800	115	5,609,400	4,442	1,678,650	137	502,300	11	2,401,900	40	27,383,300
	1927	7	1,460,000	12	1,087,000	147	5,471,800	115	5,609,400	4,442	1,678,650	137	502,300	11	2,401,900	40	27,383,300
Cincinnati, Ohio	1926	2	1,575,000	6	63,500	12	424,500	16	185,000	847	320,375	20	61,940	2	1,200,000		
	1927			2	122,000	13	465,000	9	338,500	788	355,360	15	24,735				
Cleveland, Ohio	1926	6	590,000	6	436,500	29	1,256,000	24	414,500	2,793	669,600	25	16,900			6	48,500
	1927	8	1,035,000	3	120,000	31	785,500	11	671,500	2,268	533,900	71	120,900			14	486,000
Columbus, Ohio	1926	4	275,000	2	87,000	14	223,400	1	7,000	1,409	433,550	11	21,100			2	45,000
	1927	3	1,960,000	1	5,000	6	46,500	11	518,000	1,300	388,500	27	63,400			3	630,000
Dallas, Tex.	1926	3	120,000	16	278,750	8	57,600	12	272,200	50	19,440	32	122,750			16	575,000
	1927	3	17,000	6	135,400	2	33,700	6	103,900	101	24,183	23	58,800	4	21,000	12	549,025
Dayton, Ohio	1926			2	146,000	8	280,122	13	251,700	584	300,974	2	7,400				
	1927	1	200,000			23	540,650	10	66,280	634	330,998	15	98,400				
Denver, Colo.	1926	5	138,000	4	68,500	13	227,800	10	95,000	462	232,650	12	77,500			2	45,000
	1927	5	577,000	2	32,000	8	60,500	9	198,500	400	188,600	20	68,500	2	137,400	2	107,000
Des Moines, Iowa	1926	3	1,464,000			1	5,000	4	12,100	311	49,230	12	25,900				
	1927	1	2,000	5	104,900			5	17,215	206	34,001	9	26,950			1	111,000

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Detroit, Mich.....	1926	8	818,600	10	384,000	79	2,998,158	57	1,945,358	7,939	2,290,477	91	219,900			17	3,068,000
	1927	10	8,393,500	20	1,061,600	70	5,235,862	50	1,094,950	5,818	1,582,804	136	342,956			18	2,920,340
Duluth, Minn.....	1926			1	10,000	6	114,100	4	33,000	213	48,820	8	62,000	1	7,000		
	1927	2	23,000	2	14,500					194	44,995	5	6,100				
El Paso, Tex.....	1926			1	40,000	1	7,000	1	3,500	36	5,400						
	1927	1	8,000	1	3,000					100	15,000	1	500				
Fall River, Mass.....	1926	1	2,000			2	3,000	10	14,650	110	41,745	1	3,500				75,000
	1927			2	188,000	2	24,900	10	13,475	100	41,175	4	6,890				
Flint, Mich.....	1926	2	250	5	70,320	13	495,445	1	4,000	640	189,839	4	52,125				57,896
	1927	6	510,000	4	90,250	35	2,064,218	8	12,443	948	283,894	8	23,445			11	497,600
Fort Worth, Tex.....	1926	1	1,350,000	3	51,000	1	44,000	-71	297,167	112	41,477	10	5,896			1	1,000,000
	1927	18	114,312	10	102,615	6	78,914	75	490,165	314	49,316	21	73,500	2	62,162		59,500
Grand Rapids, Mich.....	1926			3	150,200	5	98,000	11	79,800	898	258,760	15	39,500	2	26,500		216,650
	1927			1	84,000	3	134,800	7	19,500	822	238,290	17	50,050			3	299,809
Hartford, Conn.....	1926			1	35,000	3	82,800	29	116,145	369	282,851	1	8,860	1	470,000	3	3,000
	1927	1	26,000	1	109,538	6	104,685	5	30,300	305	255,060	2	50,400	3	200,000	1	
Houston, Tex.....	1926			7	188,930	16	375,420	15	239,500	14	13,905	21	219,303	1	75,000		
	1927	2	778,000	14	133,050	24	814,250	6	345,500	87	47,255	20	47,015	5	859,500	10	323,600
Indianapolis, Ind.....	1926	4	103,700	8	693,250	9	246,400	12	50,975	1,492	439,106	18	36,350	1	6,000	7	94,797
	1927	7	2,450,921	9	298,265	30	522,754	5	45,985	1,557	368,257	13	46,700	2	412,000	4	6,000
Jersey City, N. J.....	1926	4	370,000			12	139,077	18	112,550	205	143,848	2	17,500			6	141,000
	1927					13	239,595	21	168,229	225	184,415						164,200
Kansas City, Kans.....	1926			4	13,500	2	33,500			198	33,863	7	11,300				
	1927			3	31,000	2	68,000			61	6,500	2	3,000				
Kansas City, Mo.....	1926	2	64,000	2	125,000	9	316,500	3	38,500	300	68,650	20	62,000				
	1927	4	42,125	4	118,000	22	392,250	9	101,000	288	74,775	39	89,050				
Los Angeles, Calif.....	1926	25	2,494,950	18	398,860	97	1,181,670	90	1,100,778	5,159	1,277,579	191	171,507	2	79,500	52	837,426
	1927	24	1,931,425	27	944,025	132	1,663,457	73	1,371,729	4,984	1,204,499	175	152,441	8	376,383	42	507,205
Louisville, Ky.....	1926	3	190,500	4	302,000	9	168,000	48	525,352	250	78,350	8	54,000			4	990,908
	1927	2	31,750	8	96,250	11	601,000	27	211,225	96	71,425	12	43,500	2	1,900,000	2	2,750,000
Lowell, Mass.....	1926							4	13,050								
	1927					1	2,500		2,500		95	22,015	6	23,500			
Lynn, Mass.....	1926	2	9,350	1	12,000	4	29,200	4	41,200	178	62,435	4	18,200			3	53,850
	1927	1	150,000	1	50,000	4	121,975	9	44,300	151	56,010						
Memphis, Tenn.....	1926	1	14,300	3	128,400	4	362,050			680	276,500	4	17,550	2	332,800	2	36,400
	1927	1	15,600	4	152,750			5	230,100	465	128,180	10	58,500	1	26,000	4	291,200
Milwaukee, Wis.....	1926	2	225,000			13	496,600	6	295,000	1,531	858,919	29	60,400	1	300,000	6	461,200
	1927	6	2,202,167	2	58,000	14	144,400	14	583,000	1,837	723,816	35	77,575			10	177,800
Minneapolis, Minn.....	1926			4	143,600	9	210,050	17	199,995	1,426	354,910	26	66,900			7	116,350
	1927	3	1,171,000	5	326,500	6	51,400	15	120,925	1,248	291,150	48	95,100	1	140,000	10	1,050,300
Nashville, Tenn.....	1926			3	70,000	9	482,610	4	254,000	97	9,965	11	36,450				
	1927	4	214,000	6	131,000	1	57,500	6	33,800	61	6,825	6	11,400				
Newark, N. J.....	1926	2	380,000	4	158,000	39	756,763	17	505,000	702	719,622	7	198,750			35	3,424,576
	1927	1	15,000	2	172,000	35	1,206,507	130	419,740	523	700,392	6	18,000			22	2,290,800
New Bedford, Mass.....	1926					7	175,000	7	61,600	101	98,350	12	42,000			2	170,000
	1927	1	1,500			2	5,000	3	20,000	97	80,550	11	28,750				
New Haven, Conn.....	1926	5	1,374,000			1	12,500	6	164,000	182	158,250	9	63,000			5	436,000
	1927	1	50,000	1	32,000	4	56,200			187	130,600	11	27,000	1	715,000	2	490,000
New Orleans, La.....	1926	5	85,950	3	72,500	8	71,800	9	51,250	26	57,660	30	112,450	1	31,000	6	1,673,442
	1927	6	169,060	2	7,850	5	146,747	6	60,629	35	48,500	19	89,294	1	164,823	4	1,686,763

TABLE 6.—NUMBER AND ESTIMATED COST OF BUILDINGS (NEW CONSTRUCTION, AND REPAIRS, ALTERATIONS, AND ADDITIONS TO OLD BUILDINGS) COVERED BY PERMITS ISSUED IN THE FIRST HALF OF 1926 AND 1927, BY INTENDED USE OF BUILDINGS—Continued

## PART 2.—NEW NONRESIDENTIAL BUILDINGS—Continued

City and state	First half of each year	Amusement and recreation places		Churches		Factories, shops, etc.		Garages (public)		Garages (private)		Gasoline and service stations		Institutions		Office buildings	
		Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost
New York, N. Y.:																	
The Bronx.....	1926	24	\$2,949,250	7	\$825,000	71	\$2,963,500	51	\$2,023,000	518	\$438,679	13	\$19,460	-----	-----	7	\$286,300
	1927	25	7,945,500	9	670,000	48	1,661,850	207	3,766,930	408	174,500	12	64,200	-----	-----	19	529,800
Brooklyn.....	1926	20	3,651,000	18	1,348,000	92	4,770,300	84	963,100	2,780	1,899,700	20	25,000	-----	-----	15	4,084,000
	1927	27	6,783,000	8	510,000	113	4,341,400	82	3,191,500	2,650	1,399,915	37	162,625	1	\$75,000	23	4,508,500
Manhattan.....	1926	18	5,240,000	3	830,000	33	25,536,000	25	2,387,000	85	23,850	7	234,650	2	1,300,000	39	17,909,200
	1927	20	6,756,000	2	2,800,000	24	11,258,000	28	4,816,300	149	34,700	7	5,750	4	1,850,000	47	51,370,500
Queens.....	1926	15	2,101,750	18	846,500	50	3,707,000	41	1,019,300	2,997	1,304,000	13	102,440	3	1,920,000	29	966,600
	1927	25	4,193,800	12	2,376,500	45	945,000	36	785,350	3,604	1,355,128	46	117,347	1	200,000	15	1,393,500
Richmond.....	1926	12	202,000	2	26,000	26	1,163,000	6	48,800	334	103,758	7	15,500	1	148,000	7	77,620
	1927	2	9,500	4	86,000	3	35,000	4	33,500	413	113,622	4	13,500	-----	-----	1	2,000
Norfolk, Va.....	1926	2	9,500	1	34,000	3	51,000	1	1,500	208	33,010	6	13,714	-----	-----	-----	-----
	1927	-----	-----	-----	-----	2	17,500	-----	-----	248	48,418	2	5,250	-----	-----	1	12,750
Oakland, Calif.....	1926	4	84,414	5	60,600	27	178,080	3	79,000	1,606	473,340	29	61,300	2	225,000	1	400,000
	1927	-----	-----	-----	-----	5	58,500	30	317,600	6	79,850	17	31,450	2	433,500	4	515,600
Oklahoma City, Okla.....	1926	2	29,250	4	275,000	6	58,550	6	172,000	445	138,684	9	18,000	-----	-----	2	130,000
	1927	1	9,000	6	81,500	13	123,900	4	54,000	569	100,800	1	8,000	1	100,000	3	742,500
Omaha, Nebr.....	1926	5	696,000	1	25,000	6	47,500	6	89,000	136	340,953	19	65,300	-----	-----	2	302,000
	1927	1	55,000	2	27,500	3	104,500	1	1,600	121	30,185	18	33,900	-----	-----	4	160,500
Paterson, N. J.....	1926	1	2,000	-----	-----	5	58,900	76	117,575	175	167,386	8	82,525	-----	-----	3	230,125
	1927	3	23,500	1	20,000	8	35,000	56	28,925	145	141,990	7	39,775	3	34,100	-----	-----
Philadelphia, Pa.....	1926	6	746,000	12	671,550	70	4,726,925	43	1,317,000	906	2,616,235	-----	-----	3	382,000	29	4,924,850
	1927	3	652,600	9	645,500	89	3,241,575	45	1,842,760	793	789,750	-----	-----	8	2,360,500	24	4,759,875
Pittsburgh, Pa.....	1926	3	168,400	8	733,000	28	835,250	6	470,000	901	559,381	9	28,300	-----	-----	6	485,000
	1927	4	64,000	5	198,000	15	397,850	9	37,850	946	618,037	15	68,000	1	1,650,000	4	1,230,000
Portland, Ore.....	1926	6	652,000	5	300,000	8	97,000	47	1,024,300	2,049	346,115	20	85,000	2	42,000	4	659,000
	1927	5	1,383,440	3	100,000	15	411,650	39	1,401,700	1,725	276,925	22	180,000	1	6,000	7	1,779,600
Providence, R. I.....	1926	4	2,760,600	1	200,000	8	207,300	65	207,800	440	481,000	15	111,900	1	50,000	13	419,800
	1927	2	639,000	1	12,000	9	58,000	14	138,500	405	343,115	23	79,900	-----	-----	12	3,704,200
Reading, Pa.....	1926	-----	-----	-----	-----	13	400,400	6	36,600	212	164,025	2	32,000	-----	-----	6	902,500
	1927	2	282,500	3	215,000	10	83,600	12	85,850	195	136,925	4	9,800	-----	-----	-----	-----
Richmond, Va.....	1926	1	52,500	2	13,700	16	722,667	4	38,500	203	103,748	-----	-----	1	10,288	-----	-----
	1927	2	454,722	5	534,421	-----	-----	8	63,100	209	73,122	-----	-----	-----	-----	5	46,350
Rochester, N. Y.....	1926	4	930,000	4	230,236	18	710,125	8	365,700	1,075	468,940	19	44,750	-----	-----	2	1,108,250
	1927	3	189,200	2	75,000	9	698,700	5	48,500	1,054	387,739	30	83,350	2	195,000	2	830,000

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St. Louis, Mo.....	1926	34	275,350	4	142,500	48	1,173,300	7	184,500	2,359	671,059	4	22,300	2	455,000	7	1,728,000
	1927	47	136,200	5	320,400	30	432,950	5	135,000	1,781	447,805	7	27,500	2	154,000	8	1,596,000
St. Paul, Minn.....	1926	1	16,800	4	54,089	5	313,200	11	96,420	872	197,518	4	10,800	1	60,000	2	46,800
	1927			1	150,000	1	1,320	7	37,440	722	164,555	8	28,800				
Salt Lake City, Utah..	1926	3	65,800	2	65,000	3	15,940	3	46,000	64	13,025	4	13,400			8	793,900
	1927	1	600	1	50,000	4	53,500	4	114,000	55	28,810	7	16,000			2	25,300
San Antonio, Tex.....	1926	2	625,000	10	99,375	8	618,400	7	184,800	225	68,382	13	49,225	1	75,000	3	452,000
	1927			6	160,600	9	313,020	6	31,600	223	59,961	15	62,005	1	300,000	20	1,520,000
San Diego, Calif.....	1926	10	511,950	10	143,000	9	145,900	21	179,050	562	112,133	22	25,815	12	1,043,950	20	462,100
	1927	11	704,500	6	37,500	15	81,190	14	143,400	446	90,045	13	17,550			11	1,120,800
San Francisco, Calif..	1926	3	90,300	3	196,150	39	547,300	6	109,950	96	81,132	30	38,084	2	25,087	7	8,370,000
	1927	5	522,000	4	91,750	26	654,100	7	242,450	77	39,910	19	20,755	3	42,399	2	50,000
Scranton, Pa.....	1926			3	573,000	2	65,000			62	96,530	1	10,200				
	1927	1	1,496,000	2	44,000	4	383,300	3	81,200	246	147,367	4	16,300			1	30,000
Seattle, Wash.....	1926	5	1,680,000	3	21,200	31	289,550	25	601,800	1,089	136,155					26	1,519,665
	1927	3	190,000	1	50,000	34	481,875	17	305,200	996	197,425	25	37,500	1	100,000	14	107,525
Somerville, Mass.....	1927	1	60,000	1	75,000	3	198,000	2	120,000	91	80,405	11	29,250	1	160,000		
Spokane, Wash.....	1926							7	63,000	462	51,363	10	8,625				
	1927			3	31,500	5	30,000	3	22,000	429	48,740	3	2,000			1	5,000
Springfield, Mass....	1926			1	100,000	2	37,000	116	85,765	382	110,810	7	14,700				
	1927	2	730,000			6	110,000	8	155,400	464	290,332	14	18,600				
Syracuse, N. Y.....	1926	1	30,000	2	170,000	9	77,600			600	225,170	3	2,600			2	285,000
	1927	2	914,000			7	230,675	5	99,500	753	267,939	26	37,300	1	40,500	7	750,000
Tacoma, Wash.....	1926	1	400,000	1	100,000	17	324,500	3	29,500	335	74,555			1	85,000		
	1927	2	42,900	1	5,000	5	124,000	3	33,500	100	6,000	7	12,000	3	155,568		
Tampa, Fla.....	1927	2	30,900	2	19,000	7	100,400	4	16,500	310	44,205	10	41,400	1	11,000	5	46,170
Toledo, Ohio.....	1926			1	18,000	27	523,476	40	103,381	1,167	247,863	17	29,650	1	250,000	2	472,297
	1927	11	328,358	2	58,000	20	772,746	2	13,500	1,406	335,126	16	27,400	1	10,000		
Trenton, N. J.....	1926					21	231,429	41	49,030	172	124,177	2	11,826	2	680,000	4	246,752
	1927	1	463,000	1	150,000	21	124,935	38	44,765	206	111,020	14	49,350	1	95,918	2	362,000
Tulsa, Okla.....	1926			7	12,100	10	65,900	9	50,500	424	160,844	14	60,700				
	1927	2	40,000	3	111,000	8	23,800	5	140,500	577	195,434	13	35,700	1	500,000	6	2,503,200
Utica, N. Y.....	1926			3	76,000	3	19,700	3	12,100	171	68,900	10	32,475	1	162,000		
	1927	1	100,000			5	76,000	5	21,500	131	49,925	5	8,750				
Washington, D. C....	1926	1	9,000	3	116,000	5	148,000	6	207,438	1,194	353,665	10	260,000	5	372,871	7	887,500
	1927	2	66,684	4	269,500	6	956,250	7	705,000	774	227,360	11	92,500	3	146,169	10	1,764,110
Wilmington, Del.....	1926					3	136,500	1	25,000	486	143,175			1	121,889		
	1927			2	232,000	5	647,425	3	20,500	418	134,566	3	28,000	1	101,000		
Worcester, Mass.....	1926	3	252,000	4	147,000	10	270,105	116	311,480	244	115,590	5	14,000			2	35,250
	1927	3	6,000	3	180,000	11	29,465	61	157,230	230	118,060	12	26,750			3	252,300
Yonkers, N. Y.....	1926	3	1,025,000	3	400,000	3	224,000	17	245,200	261	150,005	6	20,960			1	5,900
	1927	1	25,000	6	405,000	11	422,800	23	352,900	286	194,701	8	29,600			2	5,000
Youngstown, Ohio....	1926	1	1,500	2	9,500	5	44,500	12	96,000	487	91,500	10	45,000			1	1,900,000
	1927	1	150,000	1	16,000	9	30,000	9	62,000	370	85,000	12	57,000	1	90,000	1	150,000
Total (78 cities) -	1926	325	48,689,729	326	15,193,610	1,502	73,019,325	1,663	27,937,809	65,769	27,743,758	1,318	4,770,230	79	14,277,980	534	87,882,638
(80 cities) -	1927	409	60,474,640	339	18,637,435	1,489	55,251,240	1,580	33,539,770	62,827	22,662,602	1,663	4,563,252	100	18,405,111	579	128,472,870

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TABLE 6.—NUMBER AND ESTIMATED COST OF BUILDINGS (NEW CONSTRUCTION, AND REPAIRS, ALTERATIONS, AND ADDITIONS TO OLD BUILDINGS) COVERED BY PERMITS ISSUED IN THE FIRST HALF OF 1926 AND OF 1927, BY INTENDED USE OF BUILDINGS—Continued

PART 2.—NEW NONRESIDENTIAL BUILDINGS—Continued

City and State	First half of each year	Public buildings		Public works and utilities		Schools, libraries, etc.		Sheds		Stables and barns		Stores, warehouses, etc.		All other		Total	
		Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost
Akron, Ohio	1926					2	\$181,000	11	\$11,300			45	\$611,545			1,093	\$1,967,261
	1927			5	\$77,500	2	320,000	12	5,835							1,197	3,860,351
Albany, N. Y.	1926	1	\$72,000	2	726,000	3	1,205,000	6	1,265			5	161,500			258	8,081,528
	1927			1	110,000	1	250,000	9	1,200			17	184,800			244	1,391,600
Atlanta, Ga.	1926			2	270,000	3	136,606	95	45,027			86	5,378,540			421	8,376,555
	1927	2	22,690					135	47,445			87	1,269,150			442	1,957,387
Baltimore, Md.	1926	2	35,000	5	731,000	3	730,000	105	63,080			35	798,000			1,855	5,431,170
	1927			2	220,000	2	950,000	2	3,500	1	\$4,000	45	859,000			1,818	4,027,600
Birmingham, Ala.	1926			1	100,000	3	192,267	50	17,403	2	8,150	90	1,001,502			338	2,719,845
	1927	2	147,500	6	246,506	1	61,117	18	3,635	2	5,625	119	983,225	1	\$500	545	3,449,162
Boston, Mass.	1926	1	150,000	1	75,000	5	691,000	152	77,445	2	5,200	100	1,753,600			1,017	10,513,326
	1927	1	80,000	3	405,000	7	2,107,984	155	122,014	1	5,000	63	1,105,317			776	8,077,220
Bridgeport, Conn.	1926					2	350,000	10	7,774			19	48,115			267	773,892
	1927					1	70,000	9	5,950			10	47,750			283	516,513
Buffalo, N. Y.	1926	2	593,198			4	810,000	50	51,322			34	1,906,115			1,605	6,442,456
	1927	1	250,000	4	187,000	8	2,437,449	50	20,050	1	1,500	12	419,725			1,596	6,762,333
Cambridge, Mass.	1926					7	53,803	7	1,625	1	900	15	219,300			131	928,943
	1927					1	60,000	7	1,650			10	106,700			131	1,582,775
Camden, N. J.	1926					1	26,000					6	157,425			400	1,598,325
	1927			1	21,000	1	39,000					5	578,000			270	1,422,190
Canton, Ohio	1926							24	3,030	1	200	15	199,950			456	917,817
	1927							20	3,210	2	1,000	11	62,450			382	480,741
Chicago, Ill.	1926	2	80,000	19	296,800	21	12,268,000	263	540,500	2	10,200	354	9,435,160	4	222,500	4,415	60,443,270
	1927	13	8,083,000	21	1,032,000	12	3,933,000	196	151,175	1	4,000	305	6,939,900	6	49,300	5,465	65,786,725
Cincinnati, Ohio	1926					1	35,000	45	8,460			31	277,600			982	4,151,375
	1927							46	44,815	1	5,000	25	202,300			905	1,606,210
Cleveland, Ohio	1926			5	9,186,000	7	1,787,000	804	246,750	4	1,800	249	2,846,950			3,966	17,938,000
	1927			1	60,000	2	925,000			1	1,800	69	2,504,000			2,467	6,802,600
Columbus, Ohio	1926							46	30,550			56	984,600			1,546	2,692,200
	1927	1	300,000			2	1,010,000	55	35,800	1	200	43	534,400			1,483	5,436,800
Dallas, Tex.	1926			3	667,100			66	47,950			99	864,775			305	2,999,590
	1927	2	716,500	4	3,460	2	143,250	92	75,016			46	881,892			303	2,545,376
Dayton, Ohio	1926	2	2,000					31	16,454	1	15,000	7	38,900			650	1,058,550
	1927					4	817,266			1	600					688	2,054,194
Denver, Colo.	1926					2	110,000			323	60,800	44	371,200			877	1,426,450
	1927					1	76,000			323	64,800	47	410,750	276	162,450	1,095	2,083,500
Des Moines, Iowa	1926							5	485			41	154,985			377	1,711,700
	1927			1	60,000			8	2,610			43	153,875			279	512,551

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Detroit, Mich.	1926				18	2,957,550					522	5,898,739	13	273,300	8,754	20,854,082
	1927	5	1,101,639		8	1,645,063					297	4,292,987	10	182,200	6,442	27,823,901
Duluth, Minn.	1926			5	73,500		27	4,275	2	22,100	6	140,093	10	108,415	287	1,333,303
	1927	2	655,000	2	1,600		35	8,955	2	5,100	6	95,300	10	3,976	260	858,526
El Paso, Tex.	1926	1	40,000								19	122,080			59	217,980
	1927	1	8,000	1	4,240						1	18,000			106	56,740
Fall River, Mass.	1926					75,000	15	2,565			12	12,300	4	8,550	157	238,310
	1927						10	2,895	1	40	22	45,180	2	480	153	323,035
Flint, Mich.	1926						41	14,890			14	171,337	25	9,218	748	1,065,320
	1927	1	721,522	1	18,000		59	16,727	1	35	42	249,339	205	68,818	1,330	4,938,791
Fort Worth, Tex.	1926					1,848,000	31	2,675			160	829,202			397	5,469,417
	1927					241,300	46	5,750	12	14,800	180	2,479,685	9	7,841	697	3,660,360
Grand Rapids, Mich.	1926	2	26,600				37	9,250			23	391,050			999	1,139,160
	1927	4	90,000	1	90,000		29	13,975			42	576,200			935	1,513,465
Hartford, Conn.	1926			1	1,000	165,000	3	925			12	211,421			424	1,463,811
	1927	3	1,624,300	1	6,000	313,477	23	11,095	1	30	5	428,000			359	3,431,885
Houston, Tex.	1926	2	70,111	3	72,000	50,000	3	6,600			77	1,761,958	11	280,500	171	3,353,227
	1927	1	10,900			701,146	9				84	1,867,205	52	58,010	314	5,985,431
Indianapolis, Ind.	1926	1	260,000	1	10,000	373,000	4		3	4,850	81	757,551	22	7,445	1,720	3,098,217
	1927	30	522,754			1,800,000	44	3,914			88	672,280			1,791	7,149,830
Jersey City, N. J.	1926			2	277,000		4	6,000	1	3,000	42	1,094,000			296	2,303,975
	1927			12	602,409		1	1,500			25	212,300			303	1,572,648
Kansas City, Kans.	1926					233,000	3				34	163,600			245	255,763
	1927										29	176,500			100	518,000
Kansas City, Mo.	1926	2	17,000	1	100,000	1,087,000	43	37,650			64	1,192,400			741	3,108,700
	1927					558,000	25	5,550			49	592,700			458	1,973,450
Los Angeles, Calif.	1926	12	79,527	66	1,518,310	4,884,176	1,116	414,312			288	5,192,614	53	278,663	7,220	19,909,872
	1927			16	472,044	1,003,500	1,035	298,388			307	6,335,815	61	541,425	6,909	16,802,316
Louisville Ky.	1926			1	150,000	37,500	2	3,500	25	5,600	151	320,300	175	95,000	755	2,777,605
	1927					1,450,000	6	1,450,000	229		52	647,800			606	7,995,335
Lowell, Mass.	1926	2	2,450			1,205	12				3	4,275	8	1,215	126	57,780
	1927			1	65,000	1,170	20		2	2,500	3	24,800	1	3,500	120	144,985
Lynn, Mass.	1926			1	200,000		3	55			11	142,450	4	315	215	569,055
	1927			1	340,000		15	8,469			9	114,000	1	50	194	884,804
Memphis, Tenn.	1926					227,500	3				89	902,000			804	2,313,620
	1927			1	65,000	292,500	18		1	7,800	37	1,906,060			552	3,402,230
Milwaukee, Wis.	1926			2	31,200	1,596,000	5	1,596,000			42	513,750	217	166,470	1,854	5,004,539
	1927	4	187,000	2	24,500	178,000	184	118,755			51	944,675			2,163	5,419,688
Minneapolis, Minn.	1926					590,770	13	1,300			75	1,089,350	51	127,190	1,616	2,843,345
	1927	8	1,057,370	2	11,000	360,000	54	6,015	1	60	44	281,445	17	290,695	1,429	5,468,015
Nashville, Tenn.	1926					150,000	24	5,150			27	227,750			208	1,457,790
	1927			5	1,077,000	40,000	21	22,375			18	117,600			132	1,804,275
Newark, N. J.	1926	12	384,768				9	11,232			93	5,026,025			933	11,615,879
	1927	2	1,006,161								82	5,043,363	6	81,056	818	10,964,251
New Bedford, Mass.	1926			1	100,000						2	80,000			132	726,850
	1927						50	10,780			9	35,400			173	181,980
New Haven, Conn.	1926			3	101,936	405,000	51	49,035			6	210,000			270	2,973,721
	1927						82	128,327			2	193,500			291	1,822,627
New Orleans, La.	1926			1	3,500	1,788,474	30	8,980	4	31,500	61	586,379	5	5,250	193	4,580,155
	1927			1	476,000	376,000	31	12,345			46	264,433	3	22,500	162	3,524,844

TABLE 6.—NUMBER AND ESTIMATED COST OF BUILDINGS (NEW CONSTRUCTION, AND REPAIRS, ALTERATIONS, AND ADDITIONS TO OLD BUILDINGS) COVERED BY PERMITS ISSUED IN THE FIRST HALF OF 1926 AND OF 1927, BY INTENDED USE OF BUILDINGS—Continued

PART 2.—NEW NONRESIDENTIAL BUILDINGS—Continued

City and State	First half of each year	Public buildings		Public works and utilities		Schools, libraries, etc.		Sheds		Stables and barns		Stores, warehouses, etc.		All other		Total	
		Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost	Number	Cost
New York, N. Y.:	1926	5	\$245,000			7	\$848,000	343	\$63,070			79	\$1,816,000	8	\$11,400	1,133	\$12,488,659
The Bronx	1927			2	\$75,000	4	2,090,000					108	2,503,750			843	19,481,530
Brooklyn	1926	13	2,755,000			3	850,000			4	\$1,500	98	1,064,650	400	257,330	3,547	21,669,580
Manhattan	1927	2	400,000			4	2,256,000					78	1,760,700	439	589,415	3,466	25,977,955
	1926	4	85,000			4	2,745,000			2	2,000	38	14,949,500	19	16,618	277	71,258,818
Queens	1927	6	435,000			4	3,830,000					40	8,325,600	14	8,605	345	91,490,455
	1926	1	2,500	5	524,000	8	1,481,000	26	15,505	3	24,000	204	2,473,820	134	70,211	3,547	16,558,626
Richmond	1927	7	933,000	11	745,000	13	8,615,700	40	28,966	8	101,450	240	3,083,015	142	54,915	4,245	24,928,671
	1926	3	345,000	9	114,250	1	306,000	20	23,060	4	2,900	83	196,475	82	27,034	597	2,799,397
Norfolk, Va.	1927	2	30,000			4	531,000	23	7,370	1	150	40	355,300	57	9,735	558	1,226,677
	1926	2	67,025	1	16,200	2	331,000	20	4,130	6	510	6	107,767			258	669,356
Oakland, Calif.	1927			1	500,000			19	2,595	4	255	11	91,109			288	677,877
	1926	1	13,000	7	524,660	11	1,822,657	22	23,950	3	16,900	79	1,620,418	11	20,750	1,811	5,304,069
Oklahoma City, Okla.	1927	1	18,500	8	247,990	11	1,560,356	10	14,040			54	569,480	19	137,377	1,234	4,435,822
	1926			1	2,000	1	5,200	12	5,750			48	310,900			536	1,145,334
Omaha, Nebr.	1927					4	779,700	1	100			32	357,500	12	25,665	631	1,577,300
	1926					2	230,000	6	1,220			64	347,900	12	25,665	261	2,720,238
Paterson, N. J.	1927							2	4,525	11	17,995	42	142,405	9	28,500	214	832,085
	1926							4	801	4	54,800	39	182,075			316	899,911
Philadelphia, Pa.	1927			1	5,000			19	174,000			19	174,000	1	335	245	503,426
	1926	1	1,908,800			9	5,422,505			1	1,000	129	3,557,415	144	3,783,430	1,353	30,057,710
Pittsburgh, Pa.	1927	4	108,445			8	3,715,450			4	57,000	112	4,133,095	38	296,180	1,137	22,602,730
	1926					7	2,426,954	35	4,430			60	1,286,750	3	4,400	1,066	7,001,865
Portland, Oreg.	1927	2	16,000	6	306,000	1	32,000	35	11,995	1	17,220	58	1,798,150	22	55,250	1,124	6,500,352
	1926			12	92,650	3	295,000	158	56,080			81	758,050			2,395	4,185,145
Providence, R. I.	1927	4	71,400	3	2,409,600	9	723,400	192	169,385			60	758,600			2,085	9,671,700
	1926	3	50,000	1	300,000	2	500,000	55	39,200	2	1,200	68	715,000			678	6,043,800
Reading, Pa.	1927	1	463,000	1	365,000			45	10,750	1		35	529,850			548	6,343,315
	1926							7	925		800	12	51,175			259	1,588,425
Richmond, Va.	1927			1	30,000			19	11,075	1	400	4	159,500	5	8,000	256	1,022,650
	1926			1	120,000			238	89,282			54	267,236	1	1,000	521	1,423,921
Rochester, N. Y.	1927					1	11,000	186	43,922			82	646,253			498	1,872,800
	1926	1	16,000					37	24,695			20	641,581	10	1,043	1,198	4,541,322
	1927			2	117,900	3	1,200,079	48	39,791			24	155,157	7	1,265	1,191	4,021,681
St. Louis, Mo.	1926			1	70,000	4	264,590	363	51,672			174	2,031,636			3,007	7,069,907
	1927			1	10,000	6	630,000	500	80,097			115	744,475	1	1,000	2,508	4,715,427

[1926]

St. Paul, Minn.	1926						215	178,855			27	152,100	1	39,600	1,143	1,166,182	
	1927				2	936,000					17	311,916	182	215,090	940	1,845,124	
Salt Lake City, Utah	1926			1	14,480						31	172,500			129	1,207,135	
	1927										23	167,950			104	459,010	
San Antonio, Tex.	1926	2	1,750,000			2	282,000				26	197,525			296	3,949,707	
	1927										54	356,654			316	1,435,840	
San Diego, Calif.	1926			2	61,000						79	594,462	52	19,400	991	3,105,788	
	1927					3	47,000				66	518,010	29	4,940	723	2,787,216	
San Francisco, Calif.	1926	2	81,750	3	71,650	11	1,458,908	11	24,360		95	1,309,625			308	12,404,296	
	1927			9	802,695	4	1,029,014	4	1,800		76	1,381,950			236	4,878,823	
Scranton, Pa.	1926					2	182,000				1	62,000			71	988,730	
	1927			1	90,000	3	313,809	6	5,840	1	2,000	12	62,200		284	2,672,016	
Seattle, Wash.	1926	1	125,000	1	23,000	5	881,000	292	42,155		129	1,046,900			1,607	6,366,425	
	1927			3	22,000	3	930,000	221	33,790		99	1,907,940			1,417	4,363,255	
Somerville, Mass.	1926								4	475	11	93,600	3	18,350	128	835,080	
	1927								4	475	20	43,360			528	175,598	
Spokane, Wash.	1926	1	5,750						28	3,500	16	52,061	1	1,600	466	202,491	
	1927	2	9,065						3	525	10	67,600	25	702,100	559	1,303,525	
Springfield, Mass.	1926	4	121,500						12	22,650	9	109,000	13	48,814	517	1,239,741	
	1927								9	4,395	29	165,725	29	6,665	685	1,688,532	
Syracuse, N. Y.	1926					2	620,372				29	310,675	18	9,020	852	3,081,985	
	1927	2	121,874			1	300,000	1	500		38	232,625			398	2,146,180	
Tacoma, Wash.	1926			2	900,000						25	319,000			312	1,037,628	
	1927			2	170,000	2	144,000	162	25,660		52	416,975	1	1,150	578	1,365,248	
Tampa, Fla.	1926					5	620,865	179	16,683		80	801,110			1,335	2,445,777	
Toledo, Ohio	1926										70	335,945			1,333	3,218,378	
	1927					5	1,337,303								277	1,352,970	
Trenton, N. J.	1926								35	29,756	4	9,085			300	1,426,921	
	1927								10	13,448	4	3,400			585	675,694	
Tulsa, Okla.	1926								58	16,930	1	1,000	7	4,050	700	4,048,961	
	1927					4	72,500		34	9,942	3	21,200	1	1,200	194	819,075	
Utica, N. Y.	1926	1	500,000						1	1,500	7	84,200			156	343,875	
	1927										64	1,767,664	2	2,100	1,341	5,154,249	
Washington, D. C.	1926	1	10,673			9	1,010,193	34	9,145		94	871,450	1	6,680	964	6,154,742	
	1927	1	50,778	5	44,000	7	941,027	39	11,235		4	69,000			503	797,749	
Wilmington, Del.	1926			1	50,000	1	248,935	6	3,250		6	102,345	2	7,000	443	1,480,776	
	1927	1	206,840					1	200	1	900	20	571,990	19	121,310	491	2,068,693
Worcester, Mass.	1926	1	10,000	3	25,950	4	183,730	59	5,288	1	5,000	7	19,515	15	11,180	388	1,088,487
	1927	1	5,400	2	101,000	1	119,354	38	11,653	1	80	29	382,800	12	8,970	345	2,517,914
Yonkers, N. Y.	1926			1	50,000			6	5,079		25	277,190	6	2,550	380	2,567,291	
	1927	3	550,000	2	26,000	1	275,000	9	1,550		21	526,000	10	15,000	569	2,991,500	
Youngstown, Ohio	1926					1	252,000	9	9,500	10	1,000	20	125,000	10	15,000	451	1,392,250
	1927			1	600,000	1	10,000	10	1,500	5	750						
Total (78 cities)	1926	89	9,904,652	179	17,511,186	279	58,076,620	6,027	2,673,129	112	315,446	5,342	94,935,790	1,584	6,723,309	85,128	489,655,211
Total (80 cities)	1927	124	20,003,638	187	12,481,434	244	55,616,179	5,084	1,903,121	79	265,490	4,410	79,353,886	1,695	3,004,252	80,779	514,634,920

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TABLE 6.—NUMBER AND ESTIMATED COST OF BUILDINGS (NEW CONSTRUCTION, AND REPAIRS, ALTERATIONS, AND ADDITIONS TO OLD BUILDINGS) COVERED BY PERMITS ISSUED IN THE FIRST HALF OF 1926 AND OF 1927, BY INTENDED USE OF BUILDINGS—Continued

## PART 3.—REPAIRS, ALTERATIONS, AND ADDITIONS TO OLD BUILDINGS, AND GRAND TOTAL OF ALL PERMITS

City and State	First half of each year	Repairs, etc., on residential buildings <sup>6</sup>				Repairs, etc., on nonresidential buildings <sup>6</sup>		Total repairs, etc.		Grand total of all permits for new construction and repairs, etc.		Rank in cost of construction	Installation permits		Alterations that changed family accommodations			
		Housekeeping dwellings		Nonhousekeeping dwellings		Number	Cost	Number	Cost	Number	Cost		Number	Cost	Number	Cost	Families before	Families after
		Number	Cost	Number	Cost													
Akron, Ohio	1926							376	\$600,357	2,514	\$8,531,853		85	\$38,012				
	1927							400	356,035	2,850	11,153,476	28	120	30,999				
Albany, N. Y.	1926							1,044	1,331,041	1,538	13,814,519		125	116,729				
	1927							987	1,539,386	1,432	6,862,986	40	120	122,356				
Atlanta, Ga.	1926							754	713,462	1,989	12,251,114		112	221,133				
	1927							790	860,519	2,113	6,327,366	42	186	92,125	790	838		
Baltimore, Md.	1926							7,163	3,562,150	11,850	21,059,820							
	1927							7,212	3,090,010	11,159	16,026,610	15						
Birmingham, Ala.	1926	810	\$275,627			215	\$506,626	1,025	782,253	2,935	9,290,943		473	367,153				
	1927	887	298,987	1	\$63	170	849,380	1,058	1,148,430	2,993	10,743,976	31	464	468,411	1	2		
Boston, Mass.	1926	1,951	1,315,953	80	334,910	911	3,476,310	2,942	5,127,173	4,865	27,673,787		3,639	5,686,859				
	1927	2,198	1,524,735	44	68,452	935	3,908,310	3,177	5,501,497	4,873	25,919,520	7	3,960	3,643,813				
Bridgeport, Conn.	1926	64	148,336			43	130,464	107	278,800	465	1,607,242		4	10,150				
	1927	46	58,360			26	181,190	72	239,550	520	1,951,563	71	3	2,450				
Buffalo, N. Y.	1926	727	521,365			212	567,902	939	1,689,267	3,802	13,983,583		4	3,075				
	1927	632	435,432			188	354,480	820	789,912	3,431	14,396,345	20						
Cambridge, Mass.	1926	205	151,310			142	667,885	347	819,195	550	3,528,638							
	1927	171	115,925			114	339,321	285	455,246	533	4,158,921	54						
Camden, N. J.	1926	283	183,670			87	129,349	370	313,019	1,143	3,455,844							
	1927	274	144,033			76	230,755	350	374,788	883	3,022,323	61						
Canton, Ohio	1926	251	91,659			119	191,970	370	283,629	1,212	3,017,721							
	1927	176	69,555			126	202,890	302	272,445	933	1,898,686	72	22	8,925				
Chicago, Ill.	1926	1,731	1,061,020			1,403	3,653,351	3,134	4,714,371	13,675	183,577,891		243	1,018,000				
	1927	1,975	1,617,740			1,468	4,159,610	3,443	5,777,350	14,959	210,210,475	2	416	1,603,600				
Cincinnati, Ohio	1926	1,828	686,269			462	1,294,990	2,290	1,981,259	4,226	13,759,934		27	90,115	25	65		
	1927							2,531	2,161,385	4,482	13,518,728	22	1,361	751,835				
Cleveland, Ohio	1926	1,048	790,950			499	1,273,950	1,547	2,064,900	7,244	35,000,400		38	502,425				
	1927	1,044	754,325			1,484	2,666,800	2,528	3,421,125	6,205	19,827,825	12						
Columbus, Ohio	1926	564	530,050	3	19,200	162	838,900	729	1,388,150	3,653	11,668,700				54	145		
	1927	533	464,800	2	30,000	202	786,400	737	1,281,200	3,118	13,189,500	23			65	133		
Dallas, Tex.	1926	654	728,564			100	489,935	754	1,218,439	2,317	10,730,584							
	1927	622	370,862			595	518,607	1,217	889,489	1,978	4,801,891	52						
Dayton, Ohio	1926	293	169,636			252	652,845	545	652,481	1,517	4,087,553				30	60		
	1927	234	160,047			218	1,029,063	452	1,189,110	1,647	5,891,811	44						

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Denver, Colo.	1926					1,343	923,300	3,066	7,442,250		256	170,650		
	1927					1,904	985,900	3,733	6,836,700	41	76	51,050		
Des Moines, Iowa	1926	95	55,475		21	116	130,575	745	2,853,125					
	1927	98	86,640		30	128	130,830	578	1,443,071	74				
Detroit, Mich.	1926					3,768	5,234,587	20,928	96,204,692					280
	1927					3,766	8,357,234	14,899	78,742,327	3				263
Duluth, Minn.	1926	556	283,682		118	674	466,194	1,237	3,242,416		137	268,844		
	1927	608	214,109		112	720	644,674	1,150	2,321,614	67	128	25,880		
El Paso, Tex.	1926					250	160,000	362	659,153					
	1927	230	200,125		48	278	266,125	414	483,530	80				
Fall River, Mass.	1926	122	91,790		48	170	489,630	420	1,287,790				34	52
	1927	107	90,932		69	176	189,193	445	1,276,167	76			39	47
Flint, Mich.	1926					1,115	471,067	2,493	4,026,408		205	467		
	1927					1,395	604,470	4,375	11,997,927	27	243	624		
Fort Worth, Tex.	1926					1,047	1,870,183	2,604	13,868,984					
	1927					1,254	3,652,333	3,349	14,625,360	18				
Grand Rapids, Mich.	1926	1,288	393,685		180	1,144,950	1,532,825	3,131	5,668,070		253	55,470	40	95
	1927	1,347	361,560		148	336,085	1,495	697,645	3,034	4,678,860	53	101	1,347	1,466
Hartford, Conn.	1926	679	672,037		185	470,397	864	1,142,434	1,642	7,557,587		54	27,205	
	1927	340	174,756		242	648,175	582	822,931	1,139	7,621,430	38		9,109	
Houston, Tex.	1926					1,481	553,593	3,179	16,574,315					
	1927	250	177,311		779	129,947	1,029	307,258	3,244	14,548,052	19			
Indianapolis, Ind.	1926	2,911	759,821	6	11,445	362	521,708	3,279	1,292,974	5,945	1,182	601,555		
	1927					866	418,461	3,595	12,626,740	24	241	120,890		
Jersey City, N. J.	1926	55	165,900		331	207,910	386	373,810	940	8,271,285	31	34,305		
	1927	45	184,000		369	403,105	414	587,105	843	5,369,453	47	8	33,300	
Kansas City, Kans.	1926					294	115,395	994	1,372,883		3	79,000		
	1927					321	77,178	638	1,020,378	77				
Kansas City, Mo.	1926					399	591,885	2,118	11,053,135		74	226,900		
	1927	354	274,675		192	674,765	546	949,440	1,740	8,800,590	33	138	28,475	115
Los Angeles, Calif.	1926					6,010	8,203,393	19,228	63,161,395					
	1927					6,387	8,067,823	18,512	58,192,977	5				
Louisville, Ky.	1926	401	121,000		97	1,000,590	498	1,121,590	2,580	12,353,145	6,907	2,139,437		
	1927	425	150,200		110	809,015	535	959,215	1,813	14,054,100	21	5,362	1,514,085	
Lowell, Mass.	1926	157	85,540		83	143,530	240	229,070	426	541,150				
	1927	153	49,020		102	119,405	255	168,425	424	487,110	79			
Lynn, Mass.	1926	185	275,275		74	226,845	259	502,120	636	2,510,425				
	1927	176	138,985		138	120,466	314	259,451	606	2,046,455	70			
Memphis, Tenn.	1926					1,176	1,249,610	2,860	8,304,840		586	617,090		
	1927					950	842,270	2,175	7,723,800	37	450	884,000		
Milwaukee, Wis.	1926					1,180	2,227,066	4,264	16,952,361		12,200	3,158,399		
	1927					1,167	2,130,173	4,491	20,765,996	10	12,388	4,208,886		
Minneapolis, Minn.	1926					1,291	1,349,610	4,251	11,199,530					
	1927					1,228	1,323,075	3,517	12,480,310	25				
Nashville, Tenn.	1926					652	411,672	1,171	2,803,712		134	20,841		
	1927					520	261,262	938	3,598,887	55	134	20,335		
Newark, N. J.	1926	571	1,333,111		181	1,220,482	752	2,553,593	2,289	24,038,000	610	304,591		
	1927	461	776,248		213	1,534,955	674	2,311,203	2,008	27,192,304	6	751	604,597	
New Bedford, Mass.	1926	236	97,810		19	32,875	255	130,685	465	1,423,535				
	1927	230	121,695		27	84,300	257	205,995	484	753,675	78			

\* For years in which figures are not shown total repairs, etc., only were reported.

TABLE 6.—NUMBER AND ESTIMATED COST OF BUILDINGS (NEW CONSTRUCTION, AND REPAIRS, ALTERATIONS, AND ADDITIONS TO OLD BUILDINGS) COVERED BY PERMITS ISSUED IN THE FIRST HALF OF 1926 AND OF 1927, BY INTENDED USE OF BUILDINGS—Continued  
PART 3.—REPAIRS, ALTERATIONS, AND ADDITIONS TO OLD BUILDINGS, AND GRAND TOTAL OF ALL PERMITS—Continued

City and State	First half of each year	Repairs, etc., on residential buildings				Repairs, etc., on nonresidential buildings		Total repairs, etc.		Grand total of all permits for new construction and repairs, etc.		Rank in cost of construction	Installation permits		Alterations that changed family accommodations			
		Housekeeping dwellings		Nonhousekeeping dwellings		Number	Cost	Number	Cost	Number	Cost		Number	Cost	Number	Cost	Families before	Families after
		Number	Cost	Number	Cost													
New Haven, Conn.	1926																	
	1927	110	\$180,000			271	\$363,000	347	\$509,747	733	\$5,229,644		108	\$14,300				
New Orleans, La.	1926	110	250,640	64	\$173,250	77	190,016	251	613,906	1,090	8,065,834	57	236	22,000			22	
	1927	105	343,800			197	510,890	302	854,690	1,051	7,960,819							
New York, N. Y.:	1926	588	887,682			384	1,306,880	972	2,194,562	4,648	110,756,421	1	1,062	275,369				
The Bronx	1927	331	768,555			3,126	4,183,843	3,457	4,952,398	6,389	104,793,228							
Brooklyn	1926	2,416	2,834,100	27	65,400	845	6,592,540	3,288	9,492,040	12,876	133,653,870		2,728	1,433,446				
	1927	2,412	2,875,915	43	73,900	915	4,612,300	3,370	7,562,115	12,249	117,873,370		3,383	1,747,703				
Manhattan	1926	707	3,294,210	161	1,291,940	770	10,123,938	1,688	14,710,088	2,064	164,114,406							
	1927	715	4,389,290	145	2,425,450	820	11,476,937	1,680	18,291,677	2,128	153,464,132							
Queens	1926	1,778	900,702			482	3,039,765	2,260	3,940,467	14,651	95,087,543		538	131,460				
	1927	1,720	1,083,266			490	2,720,146	2,150	3,803,412	14,835	108,099,933		1,027	830,733				
Richmond	1926	300	187,434			118	185,985	318	373,419	1,639	6,651,456		78	11,875				
	1927	286	268,555			182	276,914	468	545,469	1,844	5,888,925		28	9,150				
Norfolk, Va.	1926	151	88,032			93	149,537	244	237,569	689	1,796,575		167	25,427	17	68		
	1927	190	111,070			103	184,032	293	295,102	762	2,114,954	69	189	29,556	34	57		
Oakland, Calif.	1926							1,428	1,402,901	5,243	15,349,185		355	154,014				
	1927							1,621	1,529,733	3,912	10,928,362		30	439	193,989			
Oklahoma City, Okla.	1926							248	179,790	1,289	3,267,407		32	10,062				
	1927	197	171,148			65	275,971	262	447,119	1,555	5,091,379		50	43	11,777			
Omaha, Nebr.	1926	52	37,775			59	450,400	111	488,175	841	5,584,238							
	1927	41	32,238			52	242,225	93	274,463	512	2,324,268		66					
Paterson, N. J.	1926							629	761,027	1,221	3,756,878		10	1,125				
	1927							797	580,583	1,292	3,386,125		58	23	9,450			
Philadelphia, Pa.	1926	2,087	5,827,030	245	818,280	1,222	1,536,580	2,454	8,181,890	9,366	70,379,825		283	101,825				
	1927	3,125	1,845,970			1,040	5,538,015	4,165	7,883,985	10,290	61,683,600		4	134	57,490			
Pittsburgh, Pa.	1926	1,298	620,110	16	21,460	430	2,087,753	1,744	2,729,323	3,884	20,070,013				50	96		
	1927	1,407	1,020,041	12	46,850	488	1,868,607	1,907	2,935,498	4,129	17,952,156		13					
Portland, Ore.	1926	1,775	571,555			555	1,026,300	2,340	1,597,555	6,710	17,257,175							
	1927	1,828	622,015			481	695,640	2,309	1,817,655	5,880	20,129,115		11					
Providence, R. I.	1926	1,351	815,600			314	830,600	1,665	1,646,200	2,725	12,666,500							
	1927	1,353	533,575			260	1,144,225	1,613	1,677,800	2,575	12,140,215		26	1,152	167,970			
Reading, Pa.	1926	855	367,950	1	22,000	87	208,600	943	588,550	1,401	3,289,775		18	7,380				
	1927	762	342,730			165	169,625	927	612,355	1,295	2,646,005		65	24	7,975			

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Richmond, Va.-----	1926	296	141, 106	2	4, 455	208	580, 027	506	725, 588	1, 631	6, 768, 611					
	1927	285	133, 036	5	10, 260	200	474, 096	490	617, 392	1, 382	5, 435, 260	46				
Rochester, N. Y.-----	1926	441	383, 545	38	301, 757	423	1, 157, 196	902	1, 842, 498	2, 872	11, 966, 698		5	950	68	167
	1927	511	419, 212	1	31, 000	497	743, 845	1, 009	1, 194, 057	2, 944	10, 950, 008	29			62	125
St. Louis, Mo.-----	1926							2, 689	5, 869, 351	7, 560	27, 385, 856					
	1927	1, 059	451, 235	12	24, 130	630	1, 351, 785	1, 701	1, 827, 150	5, 503	15, 261, 252	17	690		207, 461	
St. Paul, Minn.-----	1926	577	474, 062			313	878, 921	890	1, 352, 983	2, 840	8, 399, 505				61	46, 946
	1927	990	361, 350			232	369, 702	1, 222	731, 052	2, 615	5, 808, 088	45	104		38, 832	
Salt Lake City, Utah.-----	1926	100	85, 872			63	173, 446	163	259, 318	610	2, 979, 103					
	1927	91	70, 365			49	143, 120	140	213, 485	541	2, 676, 505					
San Antonio, Tex.-----	1926							321	147, 965	1, 522	7, 904, 559					
	1927							234	251, 625	1, 376	6, 155, 458					
San Diego, Calif.-----	1926							1, 205	666, 228	3, 811	9, 456, 103					
	1927							1, 202	651, 532	3, 277	8, 146, 257					
San Francisco, Calif.-----	1926	1, 000	973, 003			448	2, 500, 000	1, 448	3, 473, 003	3, 989	31, 723, 117				1, 200	500, 000
	1927	906	847, 869			600	1, 400, 000	1, 506	2, 247, 869	3, 721	25, 082, 131	8	1, 200		200, 000	
Scranton, Pa.-----	1926							88	97, 235	204	1, 443, 165					
	1927							214	272, 240	617	3, 586, 106					
Seattle, Wash.-----	1926							2, 006	1, 958, 160	5, 653	18, 330, 470		300	550		
	1927							2, 175	1, 808, 955	5, 342	16, 447, 910					
Somerville, Mass.-----	1927	182	79, 540			49	173, 790	231	253, 330	435	2, 132, 680					
Spokane, Wash.-----	1926	274	89, 023	3	23, 965	102	237, 480	379	350, 468	1, 276	1, 739, 335					33
	1927	248	83, 690	1	250	78	86, 648	327	170, 588	1, 077	1, 490, 779					54
Springfield, Mass.-----	1926							192	393, 899	1, 138	4, 514, 954					
	1927							223	940, 920	1, 065	5, 092, 461					
Syracuse, N. Y.-----	1926	312	293, 580	1	20, 000	255	532, 200	568	845, 780	1, 655	5, 650, 662					25
	1927	416	306, 065	15	112, 500	241	495, 761	672	914, 326	2, 152	9, 108, 709		2	950	52	87
Tacoma, Wash.-----	1926							598	504, 795	1, 541	4, 372, 050					
	1927							628	321, 480	1, 355	2, 853, 778					
Tampa, Fla.-----	1927	1, 012	250, 560			478	208, 126	1, 490	458, 686	2, 516	2, 903, 889		54	8, 057		
Toledo, Ohio.-----	1926	759	531, 409			205	700, 256	964	1, 231, 665	2, 982	7, 027, 831					37
	1927	745	509, 013			183	936, 728	928	1, 445, 741	3, 318	8, 756, 394					126
Trenton, N. J.-----	1926	37	29, 187	8	1, 885	186	323, 395	231	354, 467	743	2, 777, 331					192
	1927	253	275, 789			50	163, 133	303	438, 922	808	3, 106, 543					
Tulsa, Okla.-----	1926	226	120, 975		3, 500	80	296, 920	307	421, 395	1, 244	3, 026, 931		5	20, 705		
	1927	278	168, 373	1		114	105, 102	392	273, 475	1, 570	7, 107, 621		39	1	5, 000	
Utica, N. Y.-----	1926	34	67, 800			13	37, 850	47	105, 650	470	2, 458, 225					
	1927	31	54, 250			41	143, 500	72	197, 750	350	1, 342, 325		75			
Washington, D. C.-----	1926							1, 452	2, 450, 596	4, 934	35, 162, 815				370	958, 070
	1927							1, 479	2, 206, 269	3, 568	22, 528, 842		9	452	488, 500	
Wilmington, Del.-----	1926							301	383, 330	988	2, 361, 658				35	23, 035
	1927							348	503, 691	977	3, 292, 914		59	112	106, 476	
Worcester, Mass.-----	1926	243	192, 590			225	617, 923	468	810, 513	1, 414	6, 248, 141					
	1927	239	145, 779			270	1, 059, 317	509	1, 205, 096	1, 256	5, 202, 773		48			
Yonkers, N. Y.-----	1926	150	302, 617			64	201, 005	214	503, 622	933	14, 805, 936					
	1927	105	186, 030			99	553, 422	204	739, 452	1, 034	15, 585, 028		16			
Youngstown, Ohio.-----	1926	92	50, 000			50	29, 500	142	79, 500	1, 221	5, 977, 800				79	110
	1927	123	75, 000			40	120, 000	163	195, 000	1, 178	4, 887, 950		51			
Total (78 cities)-----	1926							90, 364	134, 898, 195	275, 710	1, 609, 684, 124		34, 907	19, 534, 750	380	1, 275
(80 cities)-----	1927							97, 179	138, 154, 250	263, 689	1, 524, 389, 694		36, 645	18, 485, 848	2, 515	3, 448

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# INDUSTRIAL DISPUTES

## Strikes and Lockouts in the United States in August, 1927

**B**EGINNING with this issue of the Labor Review, the Bureau of Labor Statistics presents its monthly reports on industrial disputes in a very much more complete form than it has been able to do in the past. This improvement has been made possible in large part by the cooperation of the Conciliation Service of the Department of Labor and other agencies.

Under the new method of presentation data are given not only regarding the number of disputes beginning each month, but also regarding the number in effect at the end of the month and the number of workdays lost by reason of disputes during each month. The number of workdays lost is computed by multiplying the number of workers affected in each dispute by the length of the dispute measured in working-days as normally worked by the industry or trade in question.

Disputes involving fewer than six workers and those lasting less than one day have been omitted. Data for July and August are subject to revision because of the fact that reports for these months are more or less incomplete.

The bureau is largely dependent upon newspapers and trade journals for its initial information regarding disputes. These are followed by questionnaires addressed to such sources as may further supplement the bureau's reports with reliable information, and at this time the bureau wishes to assure all those cooperating in this work of its appreciation as well as to solicit assistance from others concerned.

### Industrial Disputes Beginning in and in Effect at End of June, July and August

**T**ABLE 1 is a summary table showing for each of the months, June, July, and August, the number of disputes which began in these months, the number in effect at the end of each month, and the number of workers involved. It also shows, in the last column, the number of man-days lost.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF JUNE, JULY, AND AUGUST, 1927

Month and year	Number of disputes		Number of workers involved in disputes		Number of man-days lost during month
	Beginning in month	In effect at end of month	Beginning in month	In effect at end of month	
June, 1927.....	75	102	18, 585	196, 047	4, 859, 468
July, 1927 <sup>1</sup> .....	70	105	8	199, 422	5, 236, 963
August, 1927 <sup>1</sup> .....	63	71	7, 327	182, 845	4, 941, 789

<sup>1</sup> Preliminary figures, subject to revision.

## Industrial Disputes Beginning in and in Effect at End of June, July, and August, by Industries

TABLE 2 gives the same information as that shown in Table 1, by industries, thus offering the opportunity for more detailed comparison.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF JUNE, JULY, AND AUGUST, 1927, BY INDUSTRIES

Industry and months	Number of disputes <sup>1</sup>		Number of workers involved in disputes		Number of man-days lost during month
	Beginning in month	In effect at end of month	Beginning in month	In effect at end of month	
Automobiles:					
June.....	1	2	15	54	75
July.....	1	3	100	154	900
August.....					600
Bakery trades:					
June.....	2	5	27	412	10, 188
July.....		1		8	3, 664
August.....					400
Barbers:					
June.....	5	2	2, 290	2, 000	26, 460
July.....					28, 600
August.....	1		104		312
Building trades:					
June.....	17	25	11, 328	13, 565	341, 757
July.....	18	21	8, 078	5, 420	347, 626
August.....	16	19	670	2, 608	89, 828
Chauffeurs and teamsters:					
June.....	1	1	150	13	300
July.....	1	2	200	213	400
August.....	2	2	15	15	3, 415
Clerks:					
June.....		1		23	575
July.....		1		23	575
Clothing:					
June.....	14	16	672	925	12, 148
July.....	20	23	2, 276	1, 065	25, 625
August.....	13	13	2, 550	882	21, 609
Farm labor:					
August.....	1	1	47	47	47
Furniture:					
June.....	2	4	230	280	1, 855
July.....	1	2		50	2, 080
August.....	3	2	157	34	810
Glass:					
July.....	1	1	80	80	320
August.....	1	2	30	110	1, 006
Hotels and restaurants:					
June.....	1	2	15	18	3, 195
July.....		2		18	450
August.....		2		18	450
Laundries:					
June.....	1	1	150	150	5, 400
July.....					1, 764
Metal trades:					
June.....	1	3	26	59	468
July.....	3	4	16	49	392
August.....	1	2	25	25	763
Mining:					
June.....	3	6	1, 922	176, 618	4, 414, 308
July.....	9	8	18, 477	190, 518	4, 778, 650
August.....	4	6	990	176, 850	4, 764, 540
Miscellaneous:					
June.....	1	1	7		487
July.....	5	2	3, 876	22	5, 426
August.....	1	1	50	50	310
Motion picture and theatrical workers:					
June.....	2	5	31	65	547
July.....	4	8	116	77	1, 829
August.....	4	4	608	608	3, 887
Municipal employees:					
June.....		1		350	8, 750
July.....		1		350	8, 750
August.....	3	2	30		8, 870

<sup>1</sup> Figures for July and August are preliminary.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF JUNE, JULY, AND AUGUST, 1927, BY INDUSTRIES—Continued

Industry and months	Number of disputes		Number of workers involved in disputes		Number of man-days lost during month
	Beginning in month	In effect at end of month	Beginning in month	In effect at end of month	
Oil and chemicals:					
June.....	2		48		160
Pottery:					
August.....	1				
Printing and publishing:					
June.....	6	11	163	715	16,030
July.....	3	11	52	672	16,320
August.....		7		579	12,548
Rubber:					
June.....	1	1	64	64	384
July.....					256
Slaughtering and meat packing:					
June.....		1		6	150
July.....		1		6	150
August.....	1	1	30	6	270
Stone:					
July.....	1	1			
August.....		1			
Telephone and telegraph:					
June.....	1	1	23	23	322
July.....				23	575
August.....	1	1		23	529
Textile:					
June.....	13	13	1,049	707	13,659
July.....	3	12	190	674	12,610
August.....	9	4	2,014	996	31,386
Tobacco:					
June.....	1		375		2,250

## Industrial Disputes Beginning in August, Classified by Number of Workers and by Industries

TABLE 3 classifies by number of workers and by industries those disputes beginning in August for which complete data on this point are available.

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN AUGUST, 1927, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIES

Industry	Number of disputes beginning in August, involving—				
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	1,000 and under 5,000 workers
Barbers.....			1		
Building trades.....		3	2		
Chauffeurs and teamsters.....	2				
Clothing.....	2	5	3		1
Farm labor.....		1			
Furniture.....		3	1		
Glass.....		1			
Metal trades.....		1			
Mining.....		1	2	1	
Miscellaneous.....		2			
Motion picture and theatrical workers.....	2			1	
Municipal employees.....		1			
Slaughtering and meat packing.....		1			
Textile.....		4	3	2	
Total.....	7	23	12	4	1

## Industrial Disputes Ending in August, by Industries and Classified Duration

IN TABLE 4 are shown the number of industrial disputes ending in August, by industries and classified duration.

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN AUGUST, 1927, BY INDUSTRIES AND CLASSIFIED DURATION

Industry	Classified duration of strikes ending in August 1927			
	One-half month or less	Over one-half and less than 1 month	1 month and less than 2 months	2 months and less than 3 months
Automobile.....	1			
Barbers.....	1			
Building trades.....	5	1		3
Clothing.....	5	1	1	
Farm labor.....	1			
Glass.....			1	
Metal trades.....				
Mining, coal.....	2	1		
Motion-picture and theatrical workers.....	1	1	1	1
Printing and publishing.....	2		1	1
Slaughtering and meat packing.....	1			
Teamsters and chauffeurs.....	1	1		
Telephone and telegraph.....				1
Textile.....	6		1	1
Miscellaneous.....	1			
Total.....	27	5	5	7

A brief summary of the principal strikes beginning in August as well as those continuing into August follows:

## Strikes and Lockouts Beginning in August, 1927

**MOTION-PICTURE theaters, Illinois.**—A dispute between moving-picture machine operators and theater owners in Chicago as to the number of operators to be employed in one of the theaters resulted in the closing of some 350 or more theaters, beginning August 29.

The theater owners or exhibitors wanted to employ only two operators in the theater referred to, and the operators' union insisted on the employment of four, which was the number that had formerly been employed in that theater under another management. When the operators' union ordered operators in all Orpheum Circuit theaters to walk out during the afternoon of the 29th the Chicago Exhibitors' Association retaliated by ordering that all motion-picture and vaudeville theaters in the Chicago district belonging to the association be closed at 6 p. m. August 29.

This action by the association had the effect of locking out or laying off about 15,000 employees consisting of mostly operators, ushers, musicians, and stage hands. The two last-named groups had made certain demands, but no agreement had been reached, the musicians being by far the largest union group involved in the dispute with the exhibitors. As explained by the spokesman for the operators, the initial walkout was occasioned by the desire of the Orpheum Circuit to eliminate two operators in the Belmont Theater, which had been operated by another company using four projection men. The Orpheum policy in other cities, he said, was to use only two

men in the projection booth, and it feared that if the four-men precedent was established in Chicago it might have to be extended. The exhibitors issued this statement:

We have enough money and resources in our treasury to carry on the fight indefinitely until the unions are ready to deal with the exhibitors in a business-like manner. We will not permit labor leaders to tell us how to serve the Chicago public or what to do with our tremendous investments in Chicago.

Prospects of a settlement of the strike were indicated on the morning of September 3, after an all-night meeting between the theater owners and workers, when it was announced that "both sides had commenced getting together for an agreement."

Later in the day it was announced that the "strike and lockout" was ended in the offices of the mayor of Chicago, where exhibitors, machine operators, and stage hands' representatives met after the mayor had announced that he represented the public, which wanted movies over Sunday and Labor Day. The terms of settlement were not divulged, but were, it is stated, in the nature of a compromise agreement whereby the two operators at the Belmont Theater, over whom the fight started, are to receive full pay until next January, when the operators' agreement expires, and their status will be considered again at that time; the stage hands will receive an increase in wages of "between 7 and 8 per cent, representing three-fourths of what they asked for." It should be stated that the stage hands had assumed an aggressive strike attitude for higher wages on September 1, following the expiration of their agreement on August 31.

Differences with the musicians were settled on September 5. They had demanded the installation of four-piece orchestras in small theaters, and, like the agreement with the stage hands, the settlement reached was a compromise. The theater owners agreed to install orchestras in part of the 47 theaters now without them, some for full time and others for part of the year only.

This struggle resulted in a victory for the machine operators and a partial victory for the musicians and stage hands. It also resulted in an estimated loss in receipts of more than \$1,000,000, having tied up for several days theatrical investments of perhaps more than \$75,000,000.

*Raincoat makers, Massachusetts.*—A strike of waterproof clothing workers in Boston and vicinity began on August 25. The number of workers involved, including union and nonunion of both sexes, but mostly female, is variously reported at from 1,000 to 2,000. The strike was to enforce demands for a wage increase averaging from 20 to 25 per cent and a renewal of the 42-hour week agreement. The old agreement, according to press reports, allowed \$44 per week for men and \$35 for women in the organized shops, while in the unorganized shops girls and women received from \$10 to \$12 a week.

It is understood that by August 29 this strike was successful as regards at least 90 per cent of the workers.

*Textile workers, North Carolina.*—An unsuccessful strike of approximately 800 unorganized textile employees of the Harriet Cotton Mills, of the Cooper interests, in Henderson, began on August 4 to enforce a demand for a wage increase of 12½ per cent, which the operatives claimed was promised them three years ago when their wages were reduced during a period of business depression. The trouble began



at mill No. 1 and spread to the other mills, so that by August 11, all the four mills were involved.

Following a conference between directors and employees on August 12 it was announced that an understanding to arbitrate had been reached, but later this was denied, with the announcement that the mills had proposed that the operatives return to work at once, the wage question to be worked out later, which was rejected by the workers. Troops were placed on guard at the plants, but remained on duty only about two days, as their presence was found to be unnecessary.

Further conferences were without results. Finally the operatives proposed to return to work at once under certain conditions: "We ask that you allow us time lost during the strike, allowing each and every one of us to return to work, and leaving the wage and living conditions to you gentlemen whom we have known and worked for so long."

The directors refused to accept this proposal.

Eviction notices against some of the workers caused uneasiness. September 3, it was stated, was the last day for five mill families to occupy mill houses, as legal ejection papers were posted and were effective on that date, but the mill management announced that papers served on four of the original nine employees had been withdrawn. It was also reported on September 3 that some of the strikers had expressed a willingness to return to work on Monday morning, September 5. Later it was announced that a committee of strikers had come to an agreement with the mill officials on the night of September 3 and that the employees would return to work Monday morning, September 5, on their old wage scale, with the understanding as indicated by the strikers' committee, that the mills would drop eviction proceedings and grant wage increases at the earliest possible moment. Some striking operatives returned to work on September 5, and on September 19 it was reported that virtually all of the workers had returned and the mills were fully manned.

#### Strikes and Lockouts Continuing Into August, 1927

**BITUMINOUS coal strike.**—The major suspension of April 1 continues. Some mines in Indiana have resumed operations under the Jacksonville scale and, according to press reports, 8 or 10 mines in Central Pennsylvania resumed operations on an open-shop basis during the latter part of August. Among the operating companies are the Clearfield Bituminous Coal Corporation, Madeira-Hill Coal Mining Co., Peole, Peacock & Kerr, and the Pennsylvania Coal & Coke Corporation. These mines, it is stated, had been closed since July 1, and heretofore have been operated under contracts with the United Mine Workers.

Upon petition of the Clearfield Bituminous Coal Corporation, Judge Langhorn, of Indiana County, issued a temporary injunction on August 30 against District 2 United Mine Workers, Clearfield; James Mark, president; Faber McCloskey, vice president; Richard Gilbert, secretary and treasurer; local union No. 1515 at Dixonville; and about 40 individuals as members of the union, restraining them from interfering with the work of operating the Barr mine.

From Des Moines, Iowa, under date of September 1, comes the information that Governor Hamill, of that State, has refused for the

third time to send troops to the coal fields of Appanoose County, "where the operators are trying to start up nonunion." He denied the request for troops on the ground that the situation in Appanoose County did not warrant such a course. His decision was reached after conferring with operators, union officers, and the civil officials of Appanoose County.

Joint wage negotiations were resumed on September 7 between members of the Coal Operators' Association of Illinois and District 12 of the United Mine Workers. Following a meeting of the full committees of operators and miners, negotiations were turned over to a subcommittee of two operators and two miners, who will endeavor to reach an agreement upon a new contract to succeed the one which expired March 31.

On September 12 it was announced from Chicago that the subcommittee had failed to reach an agreement and that a committee of nine operators had been appointed to consider the situation. The committee of nine, however, refused to accept this plan, and on September 13 it was announced that negotiations to end the coal strike in Illinois had failed, when a joint conference of miners and operators adjourned without reaching an agreement.

*Supplementary note.*—It was reported from Chicago that on October 1 the operators and miners had reached an agreement whereby the mines in Illinois will resume operations after being idle six months. Under the agreement the mines are to resume operations as soon as possible, paying the old Jacksonville wage scale, while a study is being made of the Illinois mine situation by a commission of four, composed of two executives from the operators and two from the miners. This commission is to report on February 7, 1928, to a joint scale committee of both factions, and its findings will be taken as a basis for a permanent contract next spring.

A temporary settlement in Iowa was reached on October 4, following a meeting of the Iowa Coal Operators' Association at which the operators agreed to settle on a plan similar to the one formulated for Illinois.

*Laborers and hod carriers, Rhode Island.*—The strike of building laborers and hod carriers in Providence and vicinity, which began June 1, terminated, it is understood, on August 25, but the terms of settlement have not been reported.

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## Conciliation Work of the Department of Labor in August, 1927

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 38 labor disputes during August, 1927. These disputes affected a known total of 18,782 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 the 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 workers directly and indirectly affected.

On September 1, 1927, there were 42 strikes before the department for settlement, and, in addition, 5 controversies which had not reached the strike stage. The total number of cases pending was 45.

## LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS CONCILIATION SERVICE, AUGUST, 1927

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Kentucky River Sand & Stone Co., Tyrone, Ky.	Strike.....	Employees.....	Asked 5 cents per hour increase.	Adjusted. Returned without change; 3 men employed elsewhere.	1927 July 2	1927 Aug. 1	22	-----
Lasay Silk Co., Fall River, Mass.	.....do.....	Weavers.....	Wage cut of three-fourths cent per yard.	Adjusted. Returned; accepted cut and new methods.	July 27	Aug. 8	30	10
Hazel Glass Co., Washington, Pa., Clarksburg and Grafton, W. Va., and Zanesville, Ohio.	.....do.....	Glassworkers.....	Objection to bonus plan.....	Pending.....	Aug. 1	-----	80	-----
Washington Mold & Machine Co., Washington, Pa.	.....do.....	Mold makers.....	.....do.....	.....do.....	.....do.....	-----	30	-----
Carpenters, Peoria, Ill.	.....do.....	Carpenters.....	Wages, open shop, and conditions.	Adjusted. Returned without increase.	May 2	Sept. 10	125	1,500
Wilkes-Barre Silk Co., Wilkes-Barre, Pa.	.....do.....	Textile workers.....	Amount of production.....	Adjusted. Accepted new working conditions.	Aug. 4	Aug. 6	496	4
Printers, Salem, Oreg.	.....do.....	Printers.....	Asked new agreement, \$48 and \$51 for 42-hour week.	Pending.....	( <sup>1</sup> )	-----	( <sup>1</sup> )	-----
Notre Dame University, South Bend, Ind.	Controversy	Plasterers; tile setters.	Jurisdiction.....	Adjusted. Accepted National Board of Awards' decision.	Aug. 1	Aug. 4	70	150
Evans Construction Co., Columbus, Ohio.	Strike.....	Carpenters.....	Proposed wage cut.....	Pending.....	Aug. 8	-----	4	75
Hess-Goldsmith Silk Co., Kingston, Pa.	.....do.....	Textile weavers.....	Wage cuts; 4-loom system.....	Adjusted. Allowed increase on 4-loom system.	.....do.....	Aug. 16	372	3
Hess-Goldsmith Silk Co., Wilkes-Barre, Pa.	.....do.....	.....do.....	Sympathy with Kingston.....	Adjusted. Returned when Kingston settled.	Aug. 15	.....do.....	120	-----
Do.....	.....do.....	.....do.....	.....do.....	.....do.....	Aug. 13	.....do.....	90	-----
United Pants Co., Worcester, Mass.	.....do.....	Pants makers.....	Working conditions in plant.	Adjusted. Accepted terms of company.	July 29	Aug. 3	30	6
Pure Oil Co., Newark, Ohio	Controversy	Oil workers.....	Discharges for union affiliation.	Adjusted. Workers reinstated without prejudice.	Aug. 10	Sept. 4	7	73
Capital Taxicab Co., Jersey City, N. J.	Strike.....	Drivers.....	Working conditions.....	Unclassified. Returned to work before arrival of commissioner.	Aug. 9	Aug. 10	( <sup>1</sup> )	-----
Stein & Merritt, New York City	.....do.....	Neckwear makers.....	Objection to nonunion slip stitching.	Pending.....	Aug. 1	-----	60	-----
Kaiser Ventilating Co., Chicago, Ill.	.....do.....	Sheet-metal workers.	Union membership dispute..	Adjusted. Contractor became union member.	Aug. 3	Aug. 17	7	-----
John R. Evans Co., Philadelphia, Pa.	Threatened strike.	Leather workers.....	Wages.....	Adjusted. Wage scale formulated for glazed kid leather work.	Aug. 15	Sept. 12	700	-----
Harriet Cotton Mills, Henderson, N. C.	Strike.....	Textile workers.....	Asked 12½ per cent increase.	Pending. Proposed compromise rejected.	Aug. 7	-----	800	-----

<sup>1</sup> Not reported.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS CONCILIATION SERVICE, AUGUST, 1927—Con.

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Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Kent Strauss Silk Co., Allentown, Pa.	Strike	Weavers	Wage cut	Pending. Proposed compromise rejected.	(1)		38	
Wallace Silk Co., Phillipsburg, N. J.	do	do	Asked restoration of wage cut.	Unable to adjust. Many strikers employed elsewhere.	Apr. 25	Sept. 12	84	150
Park Lap Co. (Inc.), Buffalo, N. Y.	do	Carpenters	Asked union wage scale and union recognition.	Adjusted. Company agreed to pay union wagescale with union hours on this job.	Aug. 17	Aug. 22	200	100
Art Color Plant, Dunellen, N. J.	Controversy	Bookbinders	Discharges for union activity	Pending	(1)		(1)	
Kondazian & Son, Watertown, Mass.	Strike	Clothing makers	5 employees discharged for alleged sabotage.	Unclassified. Returned without change.	Aug. 17	Aug. 22	80	220
Bryant Construction Co., Indianapolis, Ind.	do	Building trades	Nonunion lathers	Adjusted. Strike call withdrawn	Aug. 12	Aug. 13	50	50
Beata Coat & Dress Co., New York City.	do	Cloak and dress makers	Demand for closed shop	Adjusted. Workers joined union and returned.	Aug. 11	Aug. 22	25	
Kaplan & Cohen, New York City	do	Coat makers	Dispute relative to membership cards.	Adjusted. Union satisfactorily arranged difficulty.	Aug. 16	Aug. 19	15	
Blau & Jachomowitz, New York City.	do	Ladies' coat makers	Organization dispute	Adjusted. Shops largely unionized	do	Aug. 22	20	
Velour Hat Co., New York City	do	Hat finishers	Wages and conditions	Pending	Aug. 4		30	19
Building trades, Lexington, Ky	do	Building crafts	Sympathy with carpenters	Adjusted. Voted strike off and returned.	Aug. 9	Aug. 31	300	
Carpenters, Lexington, Ky	do	Carpenters	Asked closed shop	do	do	do	70	230
Jno. M. Wood, contractor, Cleveland, Ohio.	Threatened strike	Stonecutters	Wages of apprentices	Adjusted. Arbitrated under existing contract.	Aug. 26	Aug. 27	3	35
Shoe lasters, Quincy, Ill.	Controversy	Lasters	Wages for new work	Adjusted. Settled on company's terms.	Aug. 1	Aug. 22	4	
Veterans Hospital, Bedford, Mass.	Strike	Building laborers	Demand for closed shop	Pending	Aug. 17		(1)	
Waterproof garments, Boston, Mass.	do	Garment makers	Asked 20 per cent increase	do	Aug. 26		1,000	
Motion-picture operators, stage hands, and musicians, Chicago, Ill.	do	Theater employees	Working conditions	Adjusted. Agreed to abide by existing contract with workers.	Aug. 29	Sept. 3	600	10,000
F. & C. Chevrolet Garage, Nash and Buick auto companies, Des Moines, Iowa.	Lockout	Mechanics	Discharged for union affiliation.	Pending	Aug. 27		15	230
Theater building, Fort Wayne, Ind.	Controversy	Building	Nonunion labor	Adjusted. Agreed to finish job without change of labor conditions.	July 1	Aug. 15	150	200
Total							5,727	13,055

## Work of the Mexican Conciliation and Arbitration Boards

A REPORT on labor disputes handled by the central boards of conciliation and arbitration in Mexico in 1926 was submitted to the Department of Industry, Commerce, and Labor.<sup>1</sup> The table following shows the number and causes of the disputes, the number of workers affected, the terms of settlement, and the amounts awarded.

## LABOR DISPUTES HANDLED BY THE MEXICAN CENTRAL BOARDS OF CONCILIATION AND ARBITRATION IN 1926

[Average exchange value of peso in 1926=48.3 cents]

Causes of conflict	Number of cases	Number of workers involved			Settlements—			Amount—	
		Men	Women	Children	Favoring the workers	Favoring employers	Pending	In dispute	Awarded
Industrial accidents.....	237	362	38	-----	209	4	24	<i>Pesos</i> 109,627	<i>Pesos</i> 106,248
Violation of labor contracts.....	197	5,593	122	-----	159	17	21	28,906	15,236
Reduction of wages.....	72	337	308	-----	70	2	-----	393	5,332
Withholding of wages.....	1,583	3,148	728	8	1,501	13	69	458,712	310,650
Unjustified dismissal.....	3,215	6,145	1,331	20	3,011	133	71	118,278	203,618
Increase of wages denied.....	51	1,155	281	1	48	2	1	180	7,667
Violation of legal working hours.....	30	259	61	10	30	-----	-----	-----	2,847
Poor administration.....	28	82	12	-----	27	-----	1	90	468
Miscellaneous.....	249	7,218	381	14	215	24	10	3,559	130,263
Total.....	5,662	24,299	3,262	53	5,270	195	197	719,745	782,329

<sup>1</sup> Mexico, Departamento de Industria, Comercio y Trabajo. Boletín Comercial, Mexico, D. F., May 6, 1927, and Pan American Union Bulletin, Washington, September, 1927, p. 940.

# WAGES AND HOURS OF LABOR

## Entrance Wage Rates for Common Labor, July 1, 1927

THE term common labor has many interpretations among different industries, and even among different localities or plants in the same industry. Many employers make a practice of increasing the rate of pay of a laborer after a stated length of service, provided a sufficient degree of fitness for the job has been developed; otherwise the employee is dropped. Owing to these difficulties in the way of securing comparable data as to wage rates for common labor, the Bureau of Labor Statistics has confined these statistics to entrance rates alone—that is, the data here presented are based on rates of pay per hour given unskilled adult male common laborers when first hired.

This survey is limited to 13 important industries, which require considerable numbers of common laborers. Some establishments have reported two rates—for example, one for the 10-hour day and one for the 8-hour day, or one for white and one for colored or Mexican workers; these distinctions have not been maintained in the tabulated data, although it is apparent that the lowest rates are shown for those geographic divisions where there are large numbers of colored or Mexican workers, while the highest rates are shown for localities where an 8-hour day is more or less prevalent.

The industries included in this study and the number of common laborers in each on July 1, 1927, employed, at entrance rates, in the establishments reporting are as follows:

	Number of laborers
Automobiles.....	5, 604
Brick, tile, and terra cotta.....	3, 117
Cement.....	1, 842
Electrical machinery, apparatus, and supplies.....	2, 883
Foundry and machine-shop products.....	9, 299
Iron and steel.....	19, 934
Leather.....	2, 874
Lumber (sawmills).....	13, 304
Paper and pulp.....	7, 341
Petroleum refining.....	3, 738
Slaughtering and meat packing.....	6, 327
Public utilities.....	15, 989
General contracting.....	36, 468
Total.....	128, 720

The number of common laborers reported in each of the nine geographic divisions of the United States is:

	Number of laborers
New England.....	6, 922
Middle Atlantic.....	34, 872
East North Central.....	30, 139
West North Central.....	10, 339
South Atlantic.....	13, 741
East South Central.....	7, 175
West South Central.....	8, 043
Mountain.....	4, 790
Pacific.....	12, 699
Total.....	128, 720

The weighted average hourly rate for the several industries combined is 42.6 cents, both the lowest and the highest rates reported being in general contracting, the lowest, 15 cents, in the South Atlantic division, and the highest, \$1.12½, in the Middle Atlantic division.

The highest average rate per hour in any of the industries, 48.2 cents, appears in general contracting, followed by 46.3 cents in the automobile industry; the lowest average rate, 32.2 cents, appears in the sawmill industry.

The highest average hourly rate in any geographic division, 47.2 cents, appears in the Middle Atlantic division, followed by 46.7, in both the New England and East North Central divisions, and 46.5 in the Pacific division; the lowest average rate, 27 cents, appears in the East South Central division.

The weighted average entrance rates per hour for all industries covered, including general contracting, have been as follows:

	Cents
July 1, 1926.....	42.8
October 1, 1926.....	43.4
January 1, 1927.....	43.2
July 1, 1927.....	42.6

Omitting the data for general contracting, which was first included in these compilations on July 1, 1926, average entrance rates per hour for the periods studied have been as follows:

	Cents
January 1, 1926.....	40.2
April 1, 1926.....	40.5
July 1, 1926.....	40.9
October 1, 1926.....	40.9
January 1, 1927.....	41.0
July 1, 1927.....	40.4

The table following shows for each industry the high, low, and average entrance rates per hour in each geographic division and in the United States as a whole:

## HOURLY WAGE RATES PAID FOR COMMON LABOR, JULY 1, 1927

[The rates on which this table is based are entrance rates paid for adult male common labor]

Industry	United States	Geographic division								
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Automobiles:	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Low.....	33.3	40.0	35.0	33.3	-----	-----	-----	-----	-----	45.0
High.....	70.0	62.5	62.5	65.0	-----	-----	-----	-----	-----	70.0
Average.....	46.3	43.8	47.0	38.4	-----	-----	-----	-----	-----	50.6
Brick, tile, and terra cotta:										
Low.....	17.5	40.0	25.0	30.0	27.0	17.5	17.5	20.0	38.5	40.0
High.....	62.7	50.0	62.7	50.0	40.0	40.0	37.0	37.5	40.0	53.4
Average.....	42.2	44.1	50.3	39.7	30.9	28.7	24.3	27.1	39.3	43.3
Cement:										
Low.....	25.0	-----	35.0	35.0	35.0	-----	26.0	25.0	-----	34.0
High.....	56.0	-----	45.0	44.0	35.0	-----	40.0	28.0	-----	56.0
Average.....	39.2	-----	43.8	39.6	35.0	-----	30.9	27.1	-----	47.2
Electrical machinery, apparatus, and supplies:										
Low.....	33.0	33.0	40.0	39.0	35.0	40.0	-----	-----	-----	-----
High.....	61.0	48.0	51.0	61.0	40.0	40.0	-----	-----	-----	-----
Average.....	44.2	42.8	41.6	49.2	37.5	40.0	-----	-----	-----	-----

## HOURLY WAGE RATES PAID FOR COMMON LABOR, JULY 1, 1927—Continued

Industry	United States	Geographic division								
		New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Foundry and machine-shop products:										
Low	Cents 17.5	Cents 33.0	Cents 30.0	Cents 34.0	Cents 35.0	Cents 17.5	Cents 28.0	Cents 22.5	Cents 35.0	Cents 44.0
High	56.0	45.0	50.0	50.0	50.0	43.8	40.0	30.0	41.8	56.0
Average	37.8	39.7	40.4	39.2	40.3	27.3	30.5	26.3	36.3	50.6
Iron and steel:										
Low	20.0	40.0	30.0	35.0	35.0	20.0	31.0	-----	41.0	42.5
High	50.0	45.0	50.0	50.0	40.0	44.0	31.0	-----	49.0	50.0
Average	43.2	43.2	43.5	44.2	37.1	36.7	31.0	-----	48.8	46.2
Leather:										
Low	22.5	47.9	33.3	35.0	-----	22.5	27.5	-----	-----	44.0
High	60.0	54.2	60.0	52.0	-----	40.0	33.0	-----	-----	48.8
Average	41.4	50.2	44.1	42.4	-----	32.4	33.0	-----	-----	48.6
Lumber (sawmills):										
Low	16.0	33.0	30.0	30.0	32.5	16.0	18.5	20.0	40.0	29.0
High	62.5	36.0	40.0	62.5	35.0	35.0	30.0	31.5	45.0	50.0
Average	32.2	34.2	38.6	36.0	34.6	21.9	23.0	24.2	41.6	42.4
Paper and pulp:										
Low	22.5	36.0	35.0	35.0	35.0	30.0	22.5	-----	-----	40.0
High	54.0	50.0	50.0	54.0	40.0	38.3	26.0	-----	-----	51.3
Average	42.5	44.1	42.2	44.0	38.3	36.3	24.4	-----	-----	43.0
Petroleum refining:										
Low	30.0	-----	37.0	-----	50.0	30.0	-----	30.0	40.0	53.0
High	62.0	-----	53.0	-----	50.0	50.0	-----	50.0	55.0	62.0
Average	44.0	-----	45.2	-----	50.0	44.2	-----	38.9	50.7	59.4
Slaughtering and meat packing:										
Low	37.5	38.0	40.0	40.0	37.5	40.0	-----	37.5	40.0	40.0
High	45.0	40.0	45.0	45.0	45.0	40.0	-----	37.5	40.0	45.0
Average	41.7	39.5	42.6	41.4	42.2	40.0	-----	37.5	40.0	42.2
Public utilities: <sup>1</sup>										
Low	20.0	40.0	32.0	32.5	30.0	20.0	25.0	27.0	35.0	33.0
High	71.5	71.5	63.0	60.0	40.0	45.0	40.0	35.0	40.0	56.3
Average	39.8	47.4	45.5	45.9	33.4	32.9	29.1	29.2	36.7	47.9
General contracting: <sup>2</sup>										
Low	15.0	40.0	35.0	35.0	30.0	15.0	20.0	25.0	30.0	40.0
High	112.5	81.5	112.5	92.5	100.0	62.5	35.0	50.0	62.5	75.0
Average	48.2	53.5	55.6	57.0	43.2	32.6	28.4	35.3	44.2	51.4
Total:										
Low	15.0	33.0	25.0	30.0	27.0	15.0	17.5	20.0	30.0	29.0
High	112.5	81.5	112.5	92.5	100.0	62.5	40.0	50.0	62.5	75.0
Average	42.6	46.7	47.2	46.7	40.6	31.5	27.0	31.8	44.4	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.

## Average Wages and Hours in Cotton Goods Manufacturing, 1926

A SUMMARIZED statement of earnings and hours worked in 151 cotton mills in 12 States during one representative week in 1926 is shown below. These figures represent the employees in all occupations combined, by States. Bulletin No. 446 of the Bureau of Labor Statistics presents the results of the bureau's study in greater detail.

This table shows that the 82,982 employees earned an average of 32.8 cents per hour, averaged 45 hours per week of actual work, and earned an average of \$14.76 per week. In the representative week canvassed 15 per cent of the mills did not operate all their normal full time and a considerable number of employees in all the mills did not work all the time the mills were in operation. Had they worked the full-time hours, which averaged 53.3, they would have earned, at the same rate per hour, \$17.48 per week. Their actual hours worked and actual earnings were 84 per cent of full-time hours and earnings.



AVERAGE WAGES AND HOURS OF LABOR IN COTTON-GOODS MANUFACTURING  
1926, BY STATES

State	Number of establishments	Number of employees	Average earnings per hour	Average full-time hours per week	Average hours actually worked in one week	Per cent of full-time hours actually worked	Average full-time earnings per week	Average actual earnings made in one week
Alabama.....	6	5,352	\$0.242	54.8	43.4	79	\$13.26	\$10.51
Connecticut.....	6	2,918	.386	50.8	48.3	95	19.61	18.67
Georgia.....	15	9,765	.250	57.0	45.7	80	14.25	11.39
Maine.....	5	3,237	.369	53.9	45.1	84	19.89	16.67
Massachusetts.....	23	17,305	.413	48.5	45.5	94	20.03	18.78
New Hampshire.....	6	4,273	.429	53.8	47.3	88	23.08	20.33
New York.....	3	2,194	.412	49.1	44.3	90	20.23	18.26
North Carolina.....	47	17,621	.289	55.8	47.2	85	16.13	13.63
Pennsylvania.....	3	753	.388	52.1	39.4	76	20.21	15.29
Rhode Island.....	12	4,771	.407	50.2	44.2	88	20.43	18.00
South Carolina.....	22	12,631	.252	55.1	41.0	74	13.89	10.33
Virginia.....	3	2,162	.303	55.2	44.3	80	16.73	13.42
Total.....	151	82,982	.328	53.3	45.0	84	17.48	14.76

## Wage Rates in Open-Cut Copper Mines

A REPORT on drilling and blasting in open-cut copper mines by the Bureau of Mines<sup>1</sup> gives daily wage rates for specified occupations in six such mines located in Arizona, Nevada, New Mexico, and Utah. The table below gives the average wage rate per eight-hour shift for all the mines:

## AVERAGE DAILY WAGE SCALE, IN SIX OPEN-CUT COPPER MINES, IN 1924-25, BY OCCUPATION

Occupation	Average daily wage rate	Occupation	Average daily wage rate
Steam-shovel operators.....	\$7.48	Air-drill runners.....	<sup>1</sup> \$4.24
Crane men.....	5.41	Air-drill helpers.....	<sup>1</sup> 3.55
Firemen.....	4.19	Bankmen.....	<sup>2</sup> 4.25
Locomotive engineers.....	<sup>1</sup> 5.44	Powder men.....	<sup>2</sup> 4.10
Churn-drill runners.....	<sup>2</sup> 5.24	Pitmen.....	3.07
Churn-drill helpers.....	<sup>2</sup> 4.33	Common laborers.....	2.72

<sup>1</sup> Five mines.<sup>2</sup> Four mines.<sup>3</sup> One mine.

## Wage Policy of the American Federation of Labor

THE following statement on the modern wage policy of the American Federation of Labor and the appended comments on such policy are reproduced from the American Federationist of August, 1927 (pp. 919-924):

## Statement of Policy

ONE of the chief tasks of organized labor has always been to secure higher wages for workers. The struggle for higher wages now enters its third phase.

<sup>1</sup> United States. Department of Commerce. Bureau of Mines. Drilling and blasting in open-cut copper mines, by E. D. Gardner. Washington, 1927.

In the earliest period organized labor struggled for higher money wages. Instead of \$10 per week, it tried to secure \$11 per week, and the next year perhaps \$12.

A second period in the wage policy began as organized labor realized that the amount of money is no adequate measure for deciding whether a wage is high or low, and that it is necessary to relate money wages to prices. Then organized labor struggled for higher real wages—that is, wages that would buy more.

Very obvious changes in prices induced organized labor to realize the necessity for calculating in real wages.

Very obvious changes in productivity of labor to-day induce organized labor again to widen its wage policy.

Higher money wages from an economic point of view do not improve the situation of the worker if prices increase more than money wages.

Higher real wages from a social point of view do not improve the situation of the worker if productivity increases more than real wages.

For higher productivity without corresponding increase of real wages means that the additional product has to be bought by others than the wage earner. This means that the social position of the wage earner in relation to other consumers becomes worse, because his standard of living will not advance proportionately with those of other groups.

Deteriorating social position—that is, declining purchasing power of the mass of the wage earners in relation to the national product—brings about industrial instability which will develop into industrial crisis.

The American Federation of Labor is the first organization of labor in the world to realize the importance of the factor productivity in economic society. It no longer strives merely for higher money wages; it no longer strives merely for higher real wages; it strives for higher social wages—for wages which increase as measured by prices and productivity.

This modern wage policy lifts the movement to an absolutely new level. For higher real wages meant only betterment of the economic position—while higher social wages mean betterment of the economic and social position of the worker. The modern wage policy guarantees an active but stable development of industrial society.

(Signed) WILLIAM GREEN.

### Comments

#### I. Introduction

“ONE of the chief tasks of organized labor has always been to secure higher wages for workers.”

Organized labor tries to secure higher wages for the workers because higher wages mean a better life, because higher wages secure progress toward life worthy of men. And labor was organized in order to secure for the workers the opportunities which growing civilization offers.

“The struggle for higher wages now enters its third phase.”

In its struggle for higher wages organized labor broadened its point of view. Better insight into economic things brought new factors into consideration. The modern wage policy is the second enlargement in the point of view.

## II. Earlier Points of View

"In the earliest period organized labor struggled for higher money wages. Instead of \$10 per week it tried to secure \$11 per week, and the next year perhaps \$12."

In the earliest period of wage struggles and wage negotiations organized labor only considered the figures. If you get \$10 you can spend 10 times \$1 or two times \$5. If you get \$11 you can spend, instead of 10 times, 11 times \$1, or you can spend two times \$5 and you have left one more dollar, while if you get only \$10 there is nothing left after you have spent two times \$5. And you can spend still more if you get \$12 per week. We call these wages—which organized labor in this earliest period tried to increase—money wages, because it looked only for a higher amount of money.

"A second period in the wage policy began as organized labor realized that the amount of money is no adequate measure for deciding whether a wage is high or low, and that it is necessary to relate money wages to prices. Then organized labor struggled for higher real wages—that is, wages that would buy more."

After a while organized labor realized that higher money wages do not mean always a better living, a more abundant life. And just that organized labor has to secure for the workers. But why did higher money wages not secure better living conditions? Let us assume wages rise by 10 per cent. If prices, at the same time, rise more than 10 per cent, the worker can buy less with his wages than before, although the money amount of the wages is higher.

*Example.*—First year: Weekly earnings, \$20; weekly expenses, \$20.

Then, in the next year, wages increase by 10 per cent, but prices increase by 20 per cent. The situation is the following now:

Second year: Weekly earnings, \$22 (10 per cent higher than in the year before); weekly expenses, \$24 (20 per cent increase of the prices of all commodities).

We see: Money wages increased but prices increased more. The worker has to go into debt if he wants to buy as many commodities as in the previous year, or he has to restrict his expenses and to buy less; that means, of course, that his standard of living becomes worse; that his economic position becomes worse, although his money wages increased.

Organized labor learned that it had to pay attention to prices, and that wages had to be measured not only by the figure indicating the amount of money but also by prices; organized labor learned to relate wages and prices. Wages which are related to prices we call real wages. They give a real picture of the economic situation of the worker. The real-wage policy of organized labor did not intend to keep wages exactly on the same level with prices. It did not say: If prices go up 10 per cent wages also have to go up 10 per cent; if prices go down 10 per cent wages also have to go down 10 per cent. The significance of the second period of wage policy lies in the fact that prices are a measure for wages. Wages may keep pace with

prices; wages may increase more than prices; wages may decrease less than prices—but always prices are the measure for wages; always wages are related to prices.

### III. How Did Such Changes in the Wage Policy Come About?

“Very obvious changes in prices induced organized labor to realize the necessity for calculating in real wages. Very obvious changes in productivity of labor to-day induce organized labor again to widen its wage policy.”

One is usually concerned only with things which have become obvious. If every day you see a green street car you don't notice it. But if suddenly the street car is black you are astonished and wonder what it means. Just so it was with organized labor. As long as prices did not change very much organized labor did not care about prices. But as prices rose quite a bit, organized labor paid attention, organized labor began to study the problem, and finally started a new wage policy—the real-wage policy. Nowadays a new factor in economic life becomes very obvious—productivity. In the recent past productivity of labor increased very much. Organized labor began to pay attention, organized labor began to study the problem and, finally, to-day organized labor starts a broader wage policy.

### IV. The Economic Point of View and the Social Point of View

“Higher money wages from an economic point of view do not improve the situation of the worker if prices increase more than money wages.”

We saw that if you get higher money wages that does not mean that your economic position improves, because the economic position is very much determined by the amount of commodities which you can buy for yourself and your family. Higher money wages, however, do not buy more commodities if the prices of the commodities increase more than the money wages. Thus organized labor strove for higher real wages, which are money wages related to prices, in order to improve the economic situation of the worker.

“Higher real wages from a social point of view do not improve the situation of the worker if productivity increases more than real wages.”

The worker lives in a society. In this society everybody tries to improve his economic situation. Now, it can happen that those who are not wage earners improve their economic situation more than the wage earners improve theirs. Then the economic situation of the wage earners improves, since they can buy more commodities than before, but their social situation, their position in society, becomes worse because those who are not wage earners can buy proportionately more than they can buy. This happens, e. g., if productivity increases more than real wages increase. Therefore, the modern wage policy no longer pays attention merely to prices or to real wages; it tries no longer to secure merely a better economic situation for the wage earner, but it watches, in addition, the wage earners' social position, his position in society; watches also that his share in the progress of civilization does not become smaller. Thus, as organized labor in the second period paid attention to the develop-

ment of prices in order to secure a satisfying economic position for the wage earner, it starts now its third phase of its wage policy watching the development of productivity in order to secure a satisfying social position for the worker.

#### V. Productivity, Real Wages, Social Position of the Worker and Industrial Stability

“For higher productivity without corresponding increase of real wages means that the additional product has to be bought by others than the wage earner. This means that the social position of the wage earner in relation to other consumers becomes worse, because his standard of living will not advance proportionately with those of other groups.”

How does increasing productivity bring about such changes in the social position of the worker?

Let us assume: All American workers produce in one hour 100,000 commodities. The price of each commodity is \$1. The value of all commodities together is then \$100,000. All the workers together get as wages for their work \$50,000. With their wages they can buy 50,000 commodities, or just half of their product. The other half, also 50,000 commodities, will be bought by other consumers who are not wage earners. In the next year the productivity increases by 10 per cent. That means that all American workers together, in one hour, produce 10 per cent more commodities than in the year before. They produce, then, instead of 100,000 commodities, 110,000 commodities. Let us assume that the price of the single commodity does not change. It remains \$1 for the single commodity. Let us assume that the wages of the wage earners do not change. Then they buy just as many commodities as in the year before. They get together \$50,000 as wages and can buy with their wages, as in the year before, 50,000 commodities. Their real wages remain on the same level; they neither decrease nor increase. On the other side, in the year before, there were 50,000 commodities for other consumers. In this year, after the increase of the productivity of the worker, there are 60,000 commodities left. The additional product of 10,000 commodities has to be bought by those other consumers. So the consumers who are not wage earners buy 20 per cent more commodities than in the year before. Their economic position has improved, while that of the workers remained unchanged. That means that the social position of the wage earner became worse; he is worse off compared with the other consumers, because he did not have a share in the additional product produced by his increasing productivity. So increasing productivity to which he contributed made the social position of the worker worse. It did not permit him to share together with all others the benefits of human progress.

“Deteriorating social position—that is, declining purchasing power of the mass of the wage earners in relation to the national product—brings about industrial instability which will develop into industrial crisis.”

If the social position of the wage earner deteriorates, if the share of the wage earner in the national product declines, the product added by increasing productivity has to be bought by other consumers. In the long run, however, those other consumers—either those in the

country itself or those abroad—can not absorb the total additional product. Stocks accumulate. They grow and grow. Industrial instability arises; industrial instability turns to depression and depression to crisis. Allowing the wage earner a proportionate share in the products of increasing productivity, therefore, means from the point of view of social economics: Taking measures to prevent industrial instability, industrial depression, and industrial crisis.

#### VI. The American Federation of Labor and the Policy of Social Wages

"The American Federation of Labor is the first organization of labor in the world to realize the importance of the factor productivity in economic society."

All over the world organized labor has realized the necessity to turn from a wage policy which provides only higher money wages to a wage policy which provides also higher real wages.

The American Federation of Labor, however, is the first of all trade-unions or trade-union federations to realize the importance of the factor productivity in economic society; the first to provide increasing benefits in progressing civilization for the worker.

"It no longer strives merely for higher money wages; it no longer strives merely for higher real wages; it strives for higher social wages, for wages which increase as measured by prices and productivity."

Striving for higher money wages means striving for a higher amount of money as wage. Striving for higher real wages means striving for wages which increase in relation to prices and secure a better economic situation for the worker. Striving for higher social wages means striving for wages which increase in relation to prices and productivity, and secure a better economic and social position for the worker. We call these wages social wages because they are significant for the position of the worker in society.

In what degree should social wages increase? Differently in different industries. The social wage policy of the American Federation of Labor does not intend to keep wages exactly on the same level with prices and productivity. It does not say, if prices and productivity (combined) go up 10 per cent wages also have to go up 10 per cent; if prices and productivity (combined) go down 10 per cent wages also have to go down 10 per cent. The significance of the modern wage policy lies in the fact that no longer prices alone, but prices and productivity, are a measure for wages. Wages may keep pace with prices and productivity; wages may increase more, wages may decrease less—but always both prices and productivity are the measure for wages; always wages are related to prices and productivity.

#### Restoration of 8-Hour Day in the German Iron Industry<sup>1</sup>

**B**Y A decree of July 16, 1927, the Federal Minister of Labor has applied paragraph 7 of the working-hours decree of December 21, 1923, which prohibits the overstepping of the 8-hour day by workers exposed to excessive heat, dust, poisonous gases, or

<sup>1</sup> Report of Consul General C. B. Hurst, Berlin, July 27, 1927.

explosives, to six different groups of workers employed in a certain process of production in furnaces, tube-casting works, steel works, puddling works, rolling mills, forges, and press rolling mills. The decree shall take effect on January 1, 1928. Its enforcement in specific parts of the Reich or a single undertaking can be postponed if it is liable to menace the interests of the respective industry or undertaking.

The decree will result in the restoration from January 1, 1928, of the three-shift system in the ironworks and rolling mills. In April, 1925, a similar decree was issued with regard to furnace workers employed in the immediate operation of the furnaces, but at that time only about 3 per cent of the entire workmen employed in the smelting industry were affected, as against 22 per cent affected under the present decree.

In order better to understand the situation it must be borne in mind that after the war the 8-hour day was enforced in Germany in the entire foundry industry. In December, 1923, the 10-hour day and a 12-hour preparedness for work was introduced by voluntary agreement between employers and labor unions, but assurances were given by employers that the 8-hour day would be reinstated as soon as production was restored to normal. The labor unions this year demanded the redemption of this promise under the terms of the above-mentioned paragraph 7 of the working-hours decree. The labor committee of the Federal Economic Council, after a close examination of the situation, recommended the enforcement of the 8-hour day in the works named above, whereupon, despite energetic protests on the part of employers, the Minister of Labor issued the decree of July 16, 1927.

The reasons offered by employers in protest of the decree are that the iron industry has not yet sufficiently recovered to stand the additional strain of the costs entailed by the introduction of the three-shift system and the employment of a larger working force.

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### Wage Rates in the Leeds (England) District

TABLE 1 gives the hourly wage rate in the early part of 1927 for skilled, semiskilled, and unskilled workers in various industries in the Leeds district, England. Table 2 gives for a limited number of occupations the pre-war hourly wage rate, present rate, and the maximum rate reached between these periods. These figures were obtained from authoritative sources by a representative of the Bureau of Labor Statistics.

TABLE 1.—RATES OF PAY IN LOCAL INDUSTRIES OF LEEDS, ENGLAND

[Conversions into United States money made on par basis]

Industry and occupation	Rate per hour		Industry and occupation	Rate per hour	
	Eng-lish cur-rency	U. S. cur-rency		Eng-lish cur-rency	U. S. cur-rency
Boot and shoe: Day workers.....	<i>s. d.</i> 1 3	<i>Cents</i> 30.4	Glass industry:	<i>s. d.</i>	<i>Cents</i>
Building trades:			Fitters.....	1 3.4	31.2
Joiners, bricklayers, etc.....	1 8	40.6	Warehousemen and packers....	1 1½	26.9
Laborers.....	1 3¼	30.9	Laborers.....	0 11½	23.3
Civil engineering:			Leather industry:		
Drivers of trucks and locomotives.....	1 6½	37.5	Shavers, splitters, etc.....	1 3	30.4
Strikers, plate layers, jointers' mates.....	1 4½	33.5	Hard setters, etc.....	1 1	26.4
Laborers.....	1 3½	31.4	Laborers.....	1 0½	25.3
Chemical industry:			Mining, surface:		
Pipe fitters, bricklayers, etc.....	1 3	30.4	Firemen, pumpmen, engine-men (eastern district).....	1 0½	25.3
to to.....	1 8	40.6	Firemen, pumpmen, engine-men (western district).....	1 0.2	24.7
to to.....	1 1½	26.6	Laborers (eastern district).....	0 11.8	24.0
Tar-process men, ammonia, etc. to to.....	1 2½	29.6	Laborers (western district).....	1 0.1	24.5
to to.....	1 0½	24.6	Printing industry:		
Pitch loaders, laborers, etc.....	1 1½	26.6	Lithographers.....	1 6¾	38.0
Clothing industry:			to to.....	1 11¾	48.2
Cutters, fitters, and tailors.....	1 2½	29.4	Cutters and caster attendants..	1 5½	36.2
to to.....	1 4	32.4	General workers.....	1 1½	28.1
to to.....	1 1	26.4	Sheet-metal industry: Skilled workers.....	1 3¼	30.9
Packers, warehousemen, etc.....	to to	28.9	Textile industry (wool):		
General workers.....	0 10¾	21.8	Comb minders.....	1 2½	29.4
Electrical contracting:			to to.....	1 3½	31.4
Electricians and wiremen.....	1 7¾	40.0	to to.....	1 1½	27.1
Electricians' mates.....	1 2¾	29.9	Shoddy men and wool runners..	to to	27.9
Fire-clay, brick, etc., industry:			Laborers.....	1 1.17	26.7
Skilled workers.....	1 1	26.4	Transportation:		
Semiskilled workers.....	1 0	24.3	Railway guards, shunters, etc..	1 0¾	25.9
Laborers.....	0 11½	23.3	to to.....	1 4¼	33.0
Flour milling:			Railway porters, loaders, lampmen, etc.....	0 11½	23.3
Stone men, millers, etc.....	1 4¾	34.0	to to.....	1 0½	25.3
Motormen's assistants and horsemen.....	1 2½	29.4	Drivers of motor vehicles.....	1 4	32.4
to to.....	1 3	30.4	Checkers, warehousemen, motormen, etc. (water).....	1 1	26.4
to to.....	1 2½	29.4	to to.....	1 4	32.4
Laborers.....	to to	30.9	Laborers (water).....	1 0½	25.3
Foundries and machine shops:			Vehicle industry:		
Fitters, turners, etc.....	1 2	28.4	Body makers.....	1 6	36.5
Planers, slotters, millers, etc.....	1 1	26.4	Brush hands, strikers, etc.....	1 0½	25.3
Laborers.....	0 10¾	20.8	Laborers.....	1 0	24.3
to to.....	0 10¾	21.8	Miscellaneous:		
Furniture and allied trades: Polishers, cabinetmakers, etc.....	1 7½	39.5	Saddlers.....	1 5	34.5
			Laborers, soap and candle workers.....	1 2	28.4
			Laborers, breweries.....	1 2	28.4



TABLE 2.—PRE-WAR, MAXIMUM, AND PRESENT RATES PER HOUR PAID IN SPECIFIED OCCUPATIONS IN LEEDS, ENGLAND

[Conversions into United States currency made on par basis]

Industry and occupation	Pre-war rate	Maximum rate	Present rate	
			English currency	U. S. currency
Building trades:	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>Cents</i>
Carpenters and joiners.....	0 10	2 4	1 8	40.6
Laborers.....	0 7	2 1	1 3¼	30.9
Electricity plants:				
Meter repairers.....	0 8½	2 0	1 6½	37.5
Laborers.....	0 6½	1 7½	1 2½	29.4
		to	to	
		1 8	1 2¾	29.9
Foundries and machine shops:				
Fitters and turners.....	0 8¼	1 10¼	1 1 3.3	131.0
Blacksmiths' helpers.....	0 5½	1 7	1 1 0½	125.3
Laborers.....	0 4	1 4¾	1 0 11½	23.3
		to	to	
		0 4¾	1 1 0	24.3
Gas works:				
Machine men.....	0 9¾	1 9.9	1 4½	33.7
Vertical stokers.....	0 9¾	1 10.2	1 4½	34.2
Gas makers.....	0 9	1 9½	1 4½	34.2
Laborers.....	0 6½	1 8	1 2½	29.4
Vehicle manufacture:				
Body makers.....	0 8¼	2 1½	1 6	36.5
Brush hands.....	0 5¼	1 0½	1 0½	25.3
Water works:				
Ferrulers and jointers.....	0 7½	1 7½	1 2	28.4
Laborers.....	0 6½	1 6½	1 1	26.4

<sup>1</sup> 5d. (10 cents) per week increase over union scale.

### Wages in the Milan District, Italy<sup>1</sup>

PRESENT wage scales in certain trades in Lombardy are of special interest in view of the recent general reductions of wages in Italy, which have been made in order to cut production costs and the cost of living. Table 1 shows the wage scales in certain industries in Milan in effect June 1, 1927. Since then there has been a reduction in wages of from 10 to 15 per cent. Such reductions, however, have been made only in the "caro-viveri," or high-cost-of-living allowance.

<sup>1</sup> Report from T. Jaeckel, consul general at Milan, Italy, July 12, 1927.

TABLE 1.—WAGES PER WEEK (48 HOURS) IN MILAN, JUNE 1, 1927

[Average exchange rate of lira=5.4 cents for May, 1927]

Industry and occupation	Wages per week, including cost-of-living bonus		Per cent of increase for over-time	Industry and occupation	Wages per week, including cost-of-living bonus		Per cent of increase for over-time
	Lire	United States currency			Lire	United States currency	
<b>Building:</b>				<b>Printing and bookbinding:</b>			
Masons.....	192.00	\$10.37	30	Compositors, hand.....	262.83	\$14.19	30
Carpenters.....	201.60	10.89	-----	Linotype operators.....	285.10	15.40	30
Painters.....	221.70	11.97	50	Monotype operators.....	281.50	15.20	30
Whitewashers.....	202.50	10.94	50	In charge of machines—			
Apprentices.....	124.80	6.74	30	Operatives.....	259.30	14.00	30
<b>Mechanical industries:</b>				Apprentices.....	176.86	9.55	30
Adjusters.....	154.26	8.33	25	<b>Bookbinders—</b>			
Pattern makers.....	165.30	8.93	25	Men.....	262.83	14.19	30
Lathe hands.....	166.80	9.01	25	Women.....	143.13	7.73	30
Apprentices.....	123.60	6.67	25	<b>Chemical and pharmaceutical industry: Skilled workers over 21 years.....</b>	137.40	7.42	15
<b>Furniture makers:</b>				<b>Heavy chemical industry: Skilled workers, first class.....</b>	133.68	7.22	15
Cabinetmakers.....	187.50	10.13	20				
Apprentices.....	132.60	7.16	20				

Table 2 gives the weekly wages in the printing industry, including the cost-of-living bonus, in June, 1927, as compared with the pre-war scale of wages.

In the industries listed in the table the working-day is eight hours. The law forbids working for more than 10 hours per day even for overtime. Therefore, the 30 per cent increase per hour for overtime is only for the two hours above the regulation eight.

Table 2 is presented to illustrate the increase in the "nominal" wages through the cost-of-living bonus. The figures are for wages in the printing and bookbinding trades, but are typical of the situation for all industries.

TABLE 2.—WAGES IN THE PRINTING INDUSTRY IN MILAN, JUNE 1, 1927, COMPARED WITH THE PRE-WAR SCALE

[Pre-war exchange rate of lira computed at par=19.3 cents. Average exchange rate for May, 1927=5.4 cents]

Occupation	Pre-war scale of wages per week (48 hours)		June 1, 1927			
			Cost-of-living bonus per week		Total wages per week (48 hours)	
	Lire	United States currency	Lire	United States currency	Lire	United States currency
Compositors, hand.....	44.70	\$8.63	218.13	\$11.78	262.83	\$14.19
Linotype operators.....	60.60	11.70	224.50	12.12	285.10	15.40
Monotype operators.....	57.00	11.00	224.50	12.12	281.50	15.20
Apprentices (third year).....	24.60	4.75	115.12	6.22	139.72	7.54
<b>Machine workers:</b>						
Operatives.....	44.10	8.51	215.20	11.62	259.30	14.00
Apprentices.....	30.60	5.91	146.26	7.90	176.86	9.55
<b>Bookbinders:</b>						
Men.....	44.70	8.63	218.13	11.78	262.83	14.19
Women.....	25.92	5.00	117.93	6.37	143.13	7.73

The general wage reductions after June 1, 1927, have evidently brought about a still further decline in the real wage. It is thought probable, however, that an equilibrium will be effected if the Government succeeds in reducing the cost of living.

## TREND OF EMPLOYMENT

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### Employment in Selected Manufacturing Industries in August, 1927

**E**MPLOYMENT in manufacturing industries increased one-tenth of 1 per cent in August, as compared with July, and pay-roll totals increased 2.1 per cent.

The easing off of the vacation season and the completion of July inventory taking and repairs account in part for these increases, although a well-defined upward trend appeared in several industries.

The level of employment in August, 1927, nevertheless, was 3.6 per cent lower than in August, 1926, and pay-roll totals were 3.8 per cent lower.

The Bureau of Labor Statistics' weighted index of employment for August, 1927, is 87.4, as compared with 87.3 for July, 1927; 89.1 for June, 1927; and 90.7 for August, 1926; the weighted index of pay-roll totals for August, 1927, is 91.0, as compared with 89.1 for July, 1927; 93.3 for June, 1927; and 94.6 for August, 1926.

The report for August, 1927, is based on returns made to the Bureau of Labor Statistics by 10,918 establishments in 54 of the principal manufacturing industries. These establishments in August had 3,028,729 employees whose combined earnings in one week were \$80,566,040.

#### Comparison of Employment and Pay-roll Totals in July and August, 1927

**T**HIRTY-TWO of the 54 separate industries had more employees in August than in July, and 40 industries reported increased pay-roll totals. The industries outstanding in both items were pottery, stoves, fertilizers, carriages and wagons, millinery and lace goods, confectionery, pianos, woolen and worsted goods, boots and shoes, and automobiles, the greater part of the increases having been of a seasonal character. Employment increases in these industries ranged from 16.2 per cent in pottery establishments to 4 per cent in automobile plants; pay-roll total increases ranged from 27.0 in potteries to 5.8 per cent in woolen and worsted goods mills.

The industries showing the most pronounced decreases, both in employment and in pay-roll totals, were cigars and cigarettes, ship-building, slaughtering and meat packing, ice cream, and machine tools. The last named, however, owed its decreases mainly to a regular vacation period in a few establishments.

Cotton-goods mills fell off slightly as to employment and increased slightly as to employees' earnings, and the same condition prevailed in foundries and machine shops, while the cement, stamped and enameled ware, and glass industries, and steam-car building and repairing shops coupled larger increases in pay-roll totals with small decreases in employment. The iron and steel industry showed a

1.2 per cent drop in employment, with an increase of 4.9 per cent in pay-roll totals.

Eight of the twelve groups of industries gained employees in August and nine gained in pay-roll totals, the leather group leading with increases of 3.2 per cent and 7.6 per cent in the two items, respectively. The textile group's gains were 1.3 per cent and 3.6 per cent; the iron and steel group fell off 0.8 per cent in employment but gained 3 per cent in pay-roll totals; the vehicle group's increases were 0.9 per cent and 5.4 per cent. The tobacco and the food groups and the group of miscellaneous industries showed decreases, both in employment and in employees' earnings.

The level of employment was higher in August as compared with July in five of the nine geographic divisions, these being the four Central divisions and the Pacific division; pay-roll totals were larger in every division except the Mountain division.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK EACH IN JULY AND AUGUST, 1927

Industry	Estab-lish-ments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		July, 1927	August, 1927		July, 1927	August, 1927	
<b>Food and kindred products</b> . . .	<b>1,710</b>	<b>230,740</b>	<b>227,997</b>	( <sup>1</sup> )	<b>\$5,976,267</b>	<b>\$5,855,759</b>	( <sup>1</sup> )
Slaughtering and meat pack- ing . . . . .	194	93,553	89,793	-4.0	2,432,413	2,308,741	-5.1
Confectionery . . . . .	301	29,937	31,909	+6.6	565,297	599,916	+6.1
Ice cream . . . . .	213	11,851	11,482	-3.1	392,169	375,917	-4.1
Flour . . . . .	337	15,323	15,508	+1.2	399,018	408,393	+2.3
Baking . . . . .	650	68,631	68,007	-0.9	1,850,852	1,829,057	-1.2
Sugar refining, cane . . . . .	15	11,445	11,298	-1.3	336,518	333,735	-0.8
<b>Textiles and their products</b> . . .	<b>1,932</b>	<b>602,475</b>	<b>608,429</b>	( <sup>1</sup> )	<b>11,848,405</b>	<b>12,237,679</b>	( <sup>1</sup> )
Cotton goods . . . . .	479	237,189	235,440	-0.7	3,828,033	3,857,405	+0.8
Hosiery and knit goods . . . . .	257	80,642	82,014	+1.7	1,484,885	1,572,336	+5.9
Silk goods . . . . .	200	55,139	55,694	+1.0	1,147,392	1,185,235	+3.3
Woolen and worsted goods . . . . .	190	60,874	63,594	+4.5	1,362,201	1,441,710	+5.8
Carpets and rugs . . . . .	29	23,661	23,501	-0.7	608,365	642,167	+5.6
Dyeing and finishing textiles . . . . .	97	30,502	30,895	+1.3	717,516	744,687	+3.8
Clothing, men's . . . . .	287	63,949	65,585	+2.6	1,622,759	1,650,195	+2.2
Shirts and collars . . . . .	96	19,304	19,265	-0.2	321,437	319,906	-0.5
Clothing, women's . . . . .	215	20,334	20,791	+2.2	511,694	539,903	+5.5
Millinery and lace goods . . . . .	82	10,881	11,650	+7.1	244,123	275,135	+12.7
<b>Iron and steel and their prod- ucts</b> . . . . .	<b>1,792</b>	<b>653,464</b>	<b>646,813</b>	( <sup>1</sup> )	<b>18,296,369</b>	<b>18,824,362</b>	( <sup>1</sup> )
Iron and steel . . . . .	206	266,027	262,739	-1.2	7,382,581	7,746,205	+4.9
Cast-iron pipe . . . . .	47	14,128	13,768	-2.5	346,731	335,645	-3.2
Structural ironwork . . . . .	154	23,310	23,701	+1.7	670,550	715,044	+6.6
Foundry and machine-shop products . . . . .	965	237,501	236,217	-0.5	6,837,930	6,902,317	+0.9
Hardware . . . . .	69	31,961	30,898	-3.3	763,214	763,321	+0.0
Machine tools . . . . .	152	28,482	25,483	-10.5	844,825	781,970	-7.4
Steam fittings and steam and hot-water heating apparat- us . . . . .	112	39,429	39,580	+0.4	1,117,341	1,176,105	+5.3
Stoves . . . . .	87	12,626	14,427	+14.3	353,197	403,755	+14.3
<b>Lumber and its products</b> . . . . .	<b>1,153</b>	<b>218,604</b>	<b>221,085</b>	( <sup>1</sup> )	<b>4,704,212</b>	<b>4,891,711</b>	( <sup>1</sup> )
Lumber, sawmills . . . . .	470	126,218	127,032	+0.6	2,499,935	2,558,213	+2.3
Lumber, millwork . . . . .	262	32,705	32,728	+0.1	786,626	817,685	+3.9
Furniture . . . . .	421	59,681	61,325	+2.8	1,417,651	1,515,813	+6.9
<b>Leather and its products</b> . . . . .	<b>361</b>	<b>124,061</b>	<b>128,176</b>	( <sup>1</sup> )	<b>2,914,727</b>	<b>3,141,720</b>	( <sup>1</sup> )
Leather . . . . .	129	27,443	27,558	+0.4	679,132	699,249	+3.0
Boots and shoes . . . . .	232	96,618	100,618	+4.1	2,235,595	2,442,471	+9.3
<b>Paper and printing</b> . . . . .	<b>909</b>	<b>171,526</b>	<b>172,676</b>	( <sup>1</sup> )	<b>5,495,558</b>	<b>5,571,091</b>	( <sup>1</sup> )
Paper and pulp . . . . .	221	56,777	57,423	+1.1	1,458,889	1,501,278	+2.9
Paper boxes . . . . .	176	19,047	19,300	+1.3	423,750	437,856	+3.3
Printing, book and job . . . . .	305	47,770	48,409	+1.3	1,675,915	1,708,640	+2.0
Printing, newspapers . . . . .	207	47,932	47,544	-0.8	1,937,004	1,923,317	-0.7

See footnotes at end of table.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK EACH IN JULY AND AUGUST, 1927—Con.

Industry	Estab-lish-ments	Number on pay roll		Per cent of change	Amount of pay roll		Per cent of change
		July, 1927	August, 1927		July, 1927	August, 1927	
<b>Chemicals and allied products</b> .....	<b>367</b>	<b>89,408</b>	<b>89,254</b>	( <sup>1</sup> )	<b>\$2,616,393</b>	<b>\$2,633,731</b>	( <sup>1</sup> )
Chemicals.....	133	31,199	31,357	+0.5	841,884	855,655	+1.6
Fertilizers.....	172	7,457	8,292	+11.2	157,111	172,241	+9.6
Petroleum refining.....	62	50,752	49,605	-2.3	1,617,398	1,605,835	-0.7
<b>Stone, clay, and glass products</b> .....	<b>679</b>	<b>112,492</b>	<b>112,920</b>	( <sup>1</sup> )	<b>2,864,252</b>	<b>2,967,143</b>	( <sup>1</sup> )
Cement.....	102	27,518	27,450	-0.1	804,667	817,545	+1.6
Brick, tile, and terra cotta.....	404	36,025	35,125	-2.5	904,156	893,381	-1.2
Pottery.....	61	10,726	12,463	+16.2	255,106	324,062	+27.0
Glass.....	112	38,223	37,852	-1.0	900,323	932,155	+3.5
<b>Metal products, other than iron and steel</b> .....	<b>220</b>	<b>51,075</b>	<b>51,295</b>	( <sup>1</sup> )	<b>1,328,343</b>	<b>1,356,604</b>	( <sup>1</sup> )
Stamped and enameled ware.....	67	18,916	18,850	-0.3	457,902	479,895	+4.8
Brass, bronze, and copper products.....	153	32,159	32,445	+0.9	870,441	876,709	+0.7
<b>Tobacco products</b> .....	<b>172</b>	<b>42,609</b>	<b>39,892</b>	( <sup>1</sup> )	<b>755,661</b>	<b>706,423</b>	( <sup>1</sup> )
Chewing and smoking tobacco and snuff.....	29	7,644	7,981	+4.4	123,517	122,094	-1.2
Cigars and cigarettes.....	143	34,965	31,911	-8.7	632,144	584,329	-7.6
<b>Vehicles for land transportation</b> .....	<b>1,216</b>	<b>469,514</b>	<b>478,829</b>	( <sup>1</sup> )	<b>14,101,549</b>	<b>15,057,245</b>	( <sup>1</sup> )
Automobiles.....	201	298,819	310,647	+4.0	9,191,101	10,010,971	+8.9
Carriages and wagons.....	66	1,618	1,734	+7.2	35,895	38,459	+7.1
Car building and repairing, electric-railroad.....	383	25,420	25,543	+0.5	768,459	784,515	+2.1
Car building and repairing, steam-railroad.....	566	143,657	140,905	-1.9	4,106,994	4,223,300	+2.9
<b>Miscellaneous industries</b> .....	<b>407</b>	<b>251,069</b>	<b>251,363</b>	( <sup>1</sup> )	<b>7,178,679</b>	<b>7,322,572</b>	( <sup>1</sup> )
Agricultural implements.....	83	21,633	21,967	+1.5	593,762	631,875	+6.4
Electrical machinery, apparatus, and supplies.....	175	121,190	121,842	+0.5	3,415,854	3,567,105	+4.4
Pianos and organs.....	43	7,350	7,810	+5.8	202,888	229,050	+12.9
Rubber boots and shoes.....	10	16,398	16,412	+0.1	404,967	409,692	+1.2
Automobile tires.....	56	56,437	55,930	-0.9	1,715,970	1,713,440	-0.1
Shipbuilding, steel.....	40	28,631	27,402	-4.3	845,238	771,410	-8.7
<b>All industries</b> .....	<b>10,918</b>	<b>3,017,637</b>	<b>3,028,729</b>	( <sup>1</sup> )	<b>78,080,415</b>	<b>80,566,040</b>	( <sup>1</sup> )

## Recapitulation by Geographic Divisions

GEOGRAPHIC DIVISION							
New England.....	1,400	411,043	408,315	-0.7	\$9,927,936	\$9,995,217	+0.7
Middle Atlantic.....	2,582	844,674	844,333	-( <sup>2</sup> )	23,242,924	23,788,824	+2.3
East North Central.....	2,898	979,347	992,209	+1.3	27,864,723	29,468,284	+5.8
West North Central.....	1,061	162,782	163,297	+0.3	4,080,881	4,131,800	+1.2
South Atlantic.....	1,174	280,559	279,070	-0.5	5,121,707	5,157,920	+0.7
East South Central.....	492	104,142	105,618	+1.4	1,983,223	2,032,591	+2.5
West South Central.....	464	86,891	87,712	+0.9	1,820,261	1,855,530	+1.9
Mountain.....	185	28,253	27,837	-1.5	769,487	763,767	-0.7
Pacific.....	662	119,946	120,338	+0.3	3,269,273	3,372,107	+3.1
<b>All divisions</b> .....	<b>10,918</b>	<b>3,017,637</b>	<b>3,028,729</b>	( <sup>1</sup> )	<b>78,080,415</b>	<b>80,566,040</b>	( <sup>1</sup> )

<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.

TABLE 2.—PER CENTS OF CHANGE, JULY TO AUGUST, 1927—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, July, 1927, to August, 1927		Group	Per cent of change, July, 1927, to August, 1927	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products.....	-0.9	-1.9	Metal products, other than iron and steel..... Tobacco products..... Vehicles for land transporta- tion..... Miscellaneous industries.....  All industries.....		
Textiles and their products.....	+1.3	+3.6		+0.6	+1.6
Iron and steel and their prod- ucts.....	-0.8	+3.0		-7.2	-6.8
Lumber and its products.....	+1.0	+3.5		+0.9	+5.4
Leather and its products.....	+3.2	+7.6		-1.7	-2.9
Paper and printing.....	+0.6	+1.5			
Chemicals and allied prod- ucts.....	+0.7	+1.4			
Stone, clay, and glass prod- ucts.....	+0.4	+3.9		+0.1	+2.1

#### Comparison of Employment and Pay-roll Totals in August, 1927, and August, 1926

**E**MPLOYMENT in manufacturing industries was 3.6 per cent lower in August, 1927, than in August, 1926, and pay-roll totals were 3.8 per cent lower.

Fourteen of the 54 separate industries showed increased employment in August, 1927, as compared with August, 1926, and 20 industries showed increased pay-roll totals. Six of the 14 increases in employment and 9 of the 20 increases in pay-roll totals were in industries belonging to the textile group. The cotton-goods section of this group reported the greatest increases both in employment and in pay-roll totals, the increases having been 13.6 per cent and 21.6 per cent, respectively, in the two items. The textile group as a whole showed increases of 4.7 per cent and 7.3 per cent in the two items.

The paper group of industries made small increases both in employment and pay-roll totals, as did the food group in pay-roll totals, but the remaining groups showed decreases in employment ranging from 9.2 per cent in the vehicle group to 0.8 per cent in the food group, and decreases in employees' earnings ranging from 9.4 per cent in the vehicle group to 0.4 in the leather group.

The greatest decreases in employment in separate industries shown in this comparison over the 12-month period were 30.5 per cent in carriages and wagons, 13.2 per cent in fertilizers, 12.9 per cent in cast-iron pipe, and 12 per cent in pottery.

The iron and steel *industry* decreased about 7.5 in each of the two items, and the iron and steel *group* of industries as a whole decreased 8.1 per cent in each item. The automobile industry had 8.6 per cent fewer employees and its pay-roll totals were 10.7 per cent lower in August, 1927, than in August, 1926.

The South Atlantic division alone of the nine geographic divisions had more employees in August, 1927, than in August, 1926, the increase being 1.7 per cent. The greatest decrease was 8 per cent, in the West South Central division, and the smallest decreases were 1.2 per cent in the Pacific division and 0.4 per cent in the Mountain division.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS, AUGUST, 1927, WITH AUGUST, 1926

[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 August, 1926, to August, 1927		Industry	Per cent of change August, 1926, to August, 1927	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
<b>Food and kindred products</b> .....	-0.8	+0.2	<b>Paper and printing</b> .....	+0.1	+1.3
Slaughtering and meat packing.....	-1.2	+1.2	Paper and pulp.....	-2.1	-3.8
Confectionery.....	-2.0	-0.9	Paper boxes.....	-3.8	+0.8
Ice cream.....	-7.8	-9.7	Printing, book and job.....	+0.5	+2.3
Flour.....	-4.2	-6.2	Printing, newspapers.....	+3.1	+4.7
Baking.....	+1.3	+2.6	<b>Chemicals and allied products</b> .....	-5.0	-2.5
Sugar refining, cane.....	+5.7	+4.5	Chemicals.....	-0.3	+4.1
<b>Textiles and their products</b> .....	+4.7	+7.3	Fertilizers.....	-13.2	-6.9
Cotton goods.....	+13.6	+21.6	Petroleum refining.....	-8.0	-8.5
Hosiery and knit goods.....	-1.1	+0.3	<b>Stone, clay, and glass products</b> .....	-7.9	-8.9
Silk goods.....	+1.5	+1.3	Cement.....	-4.1	-7.7
Woolen and worsted goods.....	+2.4	+3.9	Brick, tile, and terra cotta.....	-8.4	-9.6
Carpets and rugs.....	+4.3	+7.5	Pottery.....	-12.0	-11.6
Dyeing and finishing textiles.....	+2.4	+5.8	Glass.....	-6.8	-7.5
Clothing, men's.....	-0.4	-1.8	<b>Metal products, other than iron and steel</b> .....	-4.8	-6.1
Shirts and collars.....	-0.9	+5.8	Stamped and enameled ware.....	-9.6	-2.7
Clothing, women's.....	+3.1	+7.5	Brass, bronze, and copper products.....	-2.7	-7.2
Millinery and lace goods.....	+2.6	+6.1	<b>Tobacco products</b> .....	-3.3	-4.3
<b>Iron and steel and their products</b> .....	-8.1	-8.1	Chewing and smoking tobacco and snuff.....	-5.7	-2.4
Iron and steel.....	-7.7	-7.5	Cigars and cigarettes.....	-2.9	-4.5
Cast-iron pipe.....	-12.9	-8.8	<b>Vehicles for land transportation</b> .....	-9.2	-9.4
Structural ironwork.....	-7.4	-4.2	Automobiles.....	-8.6	-10.7
Foundry and machine-shop products.....	-7.9	-9.0	Carriages and wagons.....	-30.5	-25.0
Hardware.....	-10.5	-13.6	Car building and repairing, electric-railroad.....	+3.5	+2.2
Machine tools.....	-10.6	-10.5	Car building and repairing, steam-railroad.....	-9.6	-8.4
Steam fittings and steam and hot-water heating apparatus.....	-5.7	-4.1	<b>Miscellaneous industries</b> .....	-2.1	-2.9
Stoves.....	-10.0	-5.5	Agricultural implements.....	-7.9	-7.9
<b>Lumber and its products</b> .....	-8.5	-7.1	Electrical machinery, apparatus, and supplies.....	-5.2	-3.7
Lumber, sawmills.....	-10.3	-8.9	Pianos and organs.....	-9.2	-11.6
Lumber, millwork.....	-9.3	-8.3	Rubber boots and shoes.....	+0.5	+10.8
Furniture.....	-2.4	-0.3	Automobile tires.....	-0.6	+0.6
<b>Leather and its products</b> .....	-1.5	-0.4	Shipbuilding, steel.....	+0.8	-3.4
Leather.....	-2.3	-3.1	<b>All industries</b> .....	-3.6	-3.8
Boots and shoes.....	-1.3	+0.6			

## Recapitulation by Geographic Divisions

GEOGRAPHIC DIVISION			GEOGRAPHIC DIVISION—CON.		
New England.....	-2.1	-0.8	West South Central.....	-8.0	-6.0
Middle Atlantic.....	-5.2	-5.4	Mountain.....	-0.4	+1.1
East North Central.....	-4.6	-4.7	Pacific.....	-1.2	-1.0
West North Central.....	-2.3	-2.8	<b>All divisions</b> .....	-3.6	-3.8
South Atlantic.....	+1.7	+1.2			
East South Central.....	-7.4	-6.5			

## Per Capita Earnings

PER CAPITA earnings for the 54 industries combined in August, 1927, were 2 per cent higher than in July, 1927, and two-tenths of 1 per cent lower than in August, 1926.

Per capita earnings in August, 1927, showed a gain over July, 1927, in 42 industries, and a gain over August, 1926, in 34 industries.

In the comparison between July and August, 1927, the outstanding increases were in the following industries: Pottery, 9.3 per cent; pianos, 6.7 per cent; carpets, 6.3 per cent; iron and steel, 6.2 per cent; and stoves, 6.1 per cent. The most pronounced decreases were 5.3 per cent in chewing and smoking tobacco and 4.6 per cent in shipbuilding.

In the comparison over a period of 12 months the leading increases were: 10.3 per cent in rubber boots and shoes, 8 per cent in carriages and wagons, 7.6 per cent in stamped and enameled ware, and 7.1 per cent in both cotton goods and fertilizers.

TABLE 4.—COMPARISON OF PER CAPITA EARNINGS, AUGUST, 1927, WITH JULY, 1927, AND AUGUST, 1926

Industry	Per cent of change August, 1927, compared with—		Industry	Per cent of change August, 1927, compared with—	
	July, 1927	August, 1926		July, 1927	August, 1926
Pottery.....	+9.3	+0.4	Car building and repairing, elec- tric-railroad.....	+1.6	-1.3
Pianos and organs.....	+6.7	-2.5	Petroleum refining.....	+1.6	-0.8
Carpets and rugs.....	+6.3	+3.1	Cotton goods.....	+1.5	+7.1
Iron and steel.....	+6.2	+0.2	Foundry and machine-shop prod- ucts.....	+1.5	-1.3
Stoves.....	+6.1	+4.8	Brick, tile, and terra cotta.....	+1.3	-1.4
Millinery and lace goods.....	+5.3	+3.1	Cigars and cigarettes.....	+1.3	-1.5
Stamped and enameled ware.....	+5.2	+7.5	Woolen and worsted goods.....	+1.3	+1.7
Boots and shoes.....	+4.9	+1.7	Chemicals.....	+1.1	+4.4
Car building and repairing, steam- railroad.....	+4.9	+1.6	Flour.....	+1.1	-1.9
Structural ironwork.....	+4.9	+3.7	Rubber boots and shoes.....	+1.1	+10.3
Agricultural implements.....	+4.8	-0.4	Automobile tires.....	+0.8	+1.3
Automobiles.....	+4.8	-2.3	Printing, book and job.....	+0.6	+1.9
Steam fittings and steam and hot- water heating apparatus.....	+4.8	+1.5	Sugar refining, cane.....	+0.5	-0.8
Glass.....	+4.6	-0.9	Printing, newspapers.....	+0.1	+1.6
Furniture.....	+4.1	+0.2	Carriages and wagons.....	-( <sup>1</sup> )	+8.0
Hosiery and knit goods.....	+4.1	+1.5	Brass, bronze, and copper prod- ucts.....	-0.2	-4.8
Electrical machinery, apparatus, and supplies.....	+3.9	+1.4	Shirts and collars.....	-0.2	+6.5
Lumber, millwork.....	+3.9	+1.2	Baking.....	-0.3	+1.3
Machine tools.....	+3.5	+0.2	Clothing, men's.....	-0.3	-1.4
Hardware.....	+3.4	-3.4	Confectionery.....	-0.4	+1.1
Clothing, women's.....	+3.2	+4.2	Cast-iron pipe.....	-0.7	+4.5
Dyeing and finishing textiles.....	+2.5	+3.0	Ice cream.....	-1.1	-2.1
Leather.....	+2.5	-1.2	Slaughtering and meat packing.....	-1.1	+2.3
Silk goods.....	+2.3	-0.3	Fertilizers.....	-1.4	+7.1
Paper boxes.....	+2.0	+4.8	Shipbuilding, steel.....	-4.6	-4.4
Cement.....	+1.7	-3.7	Chewing and smoking tobacco and snuff.....	-5.3	+3.3
Lumber, sawmills.....	+1.7	+1.8			
Paper and pulp.....	+1.7	-1.8			

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

### Wage Changes

TWENTY-EIGHT establishments in 16 industries reported increases in wage rates during the month ended August 15, 1927. These increases averaged 6.3 per cent and affected 1,493 employees, or 23 per cent of the total number in the establishments concerned.

Twenty-one establishments in eight industries reported decreases in wage rates during the same period. The decreases averaged 6.7 per cent and affected 2,375 employees, or 78 per cent of all employees in the establishments concerned.



TABLE 5.—WAGE ADJUSTMENTS OCCURRING BETWEEN JULY 15 AND AUGUST 15, 1927

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				
Ice cream.....	213	2	5.0-10.0	7.1	24	51	(1)
Baking.....	650	6	8.0-10.0	9.2	39	13	(1)
Clothing, women's.....	215	1	7.5	7.5	6	15	(1)
Iron and steel.....	206	2	3.8	3.8	470	49	(1)
Foundry and machine-shop products.....	965	2	5.3-15.0	14.0	61	8	(1)
Lumber, sawmills.....	470	1	5.0	5.0	20	9	(1)
Furniture.....	421	1	12.0	12.0	14	11	(1)
Printing, book and job.....	305	1	1.0	1.0	8	15	(1)
Printing, newspapers.....	207	4	2.0-4.0	3.3	283	25	1
Chemicals.....	133	1	5.0	5.0	42	10	(1)
Fertilizers.....	172	2	10.0-12.5	12.1	48	54	1
Brick, tile, and terra cotta.....	404	1	15.0	15.0	18	100	(1)
Stamped and enameled ware.....	67	1	8.0	8.0	125	87	1
Automobiles.....	201	1	7.0	7.0	251	16	(1)
Car building and repairing, electric-railroad.....	383	1	16.7	16.7	65	46	(1)
Electrical machinery, apparatus, and supplies.....	175	1	5.0	5.0	19	5	(1)
			Decreases				
Carpets and rugs.....	29	1	5.0	5.0	320	80	1
Clothing, men's.....	287	1	10.0	10.0	12	14	(1)
Iron and steel.....	206	2	2.5-6.0	3.6	335	100	(1)
Hardware.....	69	1	1.5	1.5	372	100	1
Lumber, sawmills.....	470	1	10.0	10.0	142	100	(1)
Furniture.....	421	5	5.0-11.0	8.7	631	58	1
Brick, tile, and terra cotta.....	404	9	8.0-10.0	9.9	550	88	2
Electrical machinery, apparatus and supplies.....	175	1	10.0	10.0	13	100	(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 August, 1927, and for June and July, 1927, and August, 1926, 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.

The general index of employment for August, 1927, is 87.4, this number being 0.1 per cent higher than the index for July, 1927, 1.9 per cent lower than the index for June, 1927, and 3.6 per cent lower than the index for August, 1926. The general index of pay-roll totals for August, 1927, is 91.0, this number being 2.1 per cent higher than the index for July, 1927, 2.5 per cent lower than the index for June, 1927, and 3.8 per cent lower than the index for August, 1926.

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—AUGUST, 1926, AND JUNE, JULY, AND AUGUST, 1927

[Monthly average, 1923=100]

Industry	Employment				Pay-roll totals			
	1926	1927			1926	1927		
	August	June	July	August	August	June	July	August
<b>General index</b> .....	<b>90.7</b>	<b>89.1</b>	<b>87.3</b>	<b>87.4</b>	<b>94.6</b>	<b>93.3</b>	<b>89.1</b>	<b>91.0</b>
<b>Food and kindred products</b> .....	<b>89.8</b>	<b>90.7</b>	<b>89.9</b>	<b>89.1</b>	<b>93.5</b>	<b>96.4</b>	<b>95.5</b>	<b>93.7</b>
Slaughtering and meat packing.....	81.2	83.6	83.6	80.2	82.7	87.6	88.2	83.7
Confectionery.....	79.5	77.5	73.1	77.9	86.4	87.6	80.7	85.6
Ice cream.....	113.0	103.5	107.6	104.2	123.9	110.7	116.6	111.9
Flour.....	92.5	85.3	87.6	88.6	96.5	88.9	88.5	90.5
Baking.....	100.8	104.8	103.0	102.1	104.7	110.4	108.7	107.4
Sugar refining, cane.....	93.4	98.7	100.0	98.7	95.9	104.4	101.0	100.2
<b>Textiles and their products</b> .....	<b>81.5</b>	<b>86.0</b>	<b>84.2</b>	<b>85.3</b>	<b>80.6</b>	<b>86.2</b>	<b>83.5</b>	<b>86.5</b>
Cotton goods.....	76.2	87.6	87.2	86.6	71.4	88.5	86.1	86.8
Hosiery and knit goods.....	93.6	97.2	91.0	92.6	104.4	112.0	98.9	104.7
Silk goods.....	96.3	97.8	96.7	97.7	103.4	105.6	101.3	104.7
Woolen and worsted goods.....	76.3	78.2	74.7	78.1	74.7	77.5	73.4	77.6
Carpets and rugs.....	90.4	96.0	95.0	94.3	86.7	95.2	88.3	93.2
Dyeing and finishing textiles.....	94.2	97.2	95.3	96.5	93.2	99.7	95.0	98.6
Clothing, men's.....	85.1	82.5	82.7	84.8	82.5	77.3	79.3	81.0
Shirts and collars.....	77.2	77.7	76.7	76.5	74.6	79.6	79.3	78.9
Clothing, women's.....	74.5	77.3	75.2	76.8	73.8	72.4	75.2	79.3
Millinery and lace goods.....	65.1	64.9	62.4	66.8	65.8	68.2	62.0	69.8
<b>Iron and steel and their products</b> .....	<b>91.8</b>	<b>86.9</b>	<b>85.1</b>	<b>84.4</b>	<b>94.8</b>	<b>91.8</b>	<b>84.6</b>	<b>87.1</b>
Iron and steel.....	96.7	92.3	90.4	89.3	97.8	97.0	86.3	90.5
Cast-iron pipe.....	109.7	99.9	98.1	95.6	106.8	99.9	100.6	97.4
Structural ironwork.....	104.9	95.7	95.5	97.1	112.7	105.0	101.3	108.0
Foundry and machine-shop products.....	87.7	82.3	81.2	80.8	90.3	85.4	81.4	82.2
Hardware.....	85.8	82.0	79.4	76.8	96.2	90.4	83.1	83.1
Machine tools.....	92.4	95.1	92.3	82.6	101.9	105.5	98.5	91.2
Steam fittings and steam and hot-water heating apparatus.....	97.0	90.6	91.1	91.5	101.8	96.4	92.7	97.6
Stoves.....	85.4	80.5	67.3	76.9	83.1	81.7	64.8	78.5
<b>Lumber and its products</b> .....	<b>92.4</b>	<b>84.0</b>	<b>83.7</b>	<b>84.5</b>	<b>99.6</b>	<b>92.7</b>	<b>89.4</b>	<b>92.5</b>
Lumber, sawmills.....	90.2	80.7	80.4	80.9	97.4	90.1	86.7	88.7
Lumber, millwork.....	98.6	89.9	89.3	89.4	106.6	97.5	94.1	97.8
Furniture.....	96.4	91.6	91.6	94.1	102.6	98.8	95.7	102.3
<b>Leather and its products</b> .....	<b>92.4</b>	<b>85.2</b>	<b>88.2</b>	<b>91.0</b>	<b>93.7</b>	<b>82.5</b>	<b>86.7</b>	<b>93.3</b>
Leather.....	90.7	87.5	88.2	88.6	93.3	89.1	87.8	90.4
Boots and shoes.....	93.0	84.4	88.2	91.8	93.8	79.9	86.3	94.4
<b>Paper and printing</b> .....	<b>102.3</b>	<b>102.4</b>	<b>101.8</b>	<b>102.4</b>	<b>109.2</b>	<b>111.0</b>	<b>109.0</b>	<b>110.6</b>
Paper and pulp.....	95.2	92.0	92.2	93.2	101.9	97.0	95.3	98.0
Paper boxes.....	100.1	94.5	95.0	96.3	106.4	102.8	103.8	107.2
Printing, book and job.....	102.4	103.2	101.6	102.9	111.3	114.4	111.6	113.9
Printing, newspapers.....	110.1	115.3	114.4	113.5	114.8	123.3	121.0	120.2
<b>Chemicals and allied products</b> .....	<b>94.7</b>	<b>90.3</b>	<b>89.4</b>	<b>90.0</b>	<b>98.9</b>	<b>100.0</b>	<b>95.1</b>	<b>96.4</b>
Chemicals.....	93.6	94.0	92.9	93.3	100.1	108.1	102.6	104.2
Fertilizers.....	82.6	65.6	64.5	71.7	90.0	76.0	76.5	83.8
Petroleum.....	101.6	96.2	95.7	93.5	100.0	97.9	92.2	91.5
<b>Stone, clay, and glass products</b> .....	<b>102.9</b>	<b>99.0</b>	<b>94.4</b>	<b>94.8</b>	<b>110.5</b>	<b>105.6</b>	<b>96.9</b>	<b>100.7</b>
Cement.....	97.2	92.3	93.3	93.2	107.4	100.0	97.5	99.1
Brick, tile, and terra cotta.....	110.1	104.1	103.5	100.9	116.8	110.8	106.9	105.6
Pottery.....	107.7	102.6	81.6	94.8	116.8	105.4	81.3	103.2
Glass.....	95.9	94.9	90.3	89.4	104.0	103.1	93.0	96.2
<b>Metal products, other than iron and steel</b> .....	<b>94.5</b>	<b>90.7</b>	<b>89.5</b>	<b>90.0</b>	<b>94.0</b>	<b>91.5</b>	<b>86.9</b>	<b>85.3</b>
Stamped and enameled ware.....	91.3	84.2	82.8	82.5	84.4	83.2	78.4	82.1
Brass, bronze, and copper products.....	96.0	93.7	92.5	93.4	97.6	94.6	90.0	90.6
<b>Tobacco products</b> .....	<b>81.2</b>	<b>84.6</b>	<b>84.6</b>	<b>78.5</b>	<b>84.4</b>	<b>87.8</b>	<b>86.7</b>	<b>80.8</b>
Chewing and smoking tobacco and snuff.....	96.6	89.2	87.3	91.1	97.6	98.9	96.4	95.3
Cigars and cigarettes.....	79.2	84.0	84.3	76.9	82.8	86.5	85.6	79.1

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES—AUGUST, 1926, AND JUNE, JULY, AND AUGUST, 1927—Continued

Industry	Employment				Pay-roll totals			
	1926	1927			1926	1927		
	August	June	July	August	August	June	July	August
<b>Vehicles for land transportation.....</b>	<b>91.4</b>	<b>85.1</b>	<b>82.3</b>	<b>83.0</b>	<b>94.7</b>	<b>85.8</b>	<b>81.4</b>	<b>85.8</b>
Automobiles.....	108.4	101.6	95.3	99.1	112.1	96.4	91.9	100.1
Carriages and wagons.....	104.3	70.5	67.6	72.5	105.0	76.3	73.6	78.8
Car building and repairing, electric-railroad.....	87.7	89.8	90.3	90.8	90.3	93.1	90.4	92.3
Car building and repairing, steam-railroad.....	80.3	74.7	74.0	72.6	83.5	78.8	74.3	76.5
<b>Miscellaneous industries.....</b>	<b>94.6</b>	<b>98.7</b>	<b>94.2</b>	<b>92.6</b>	<b>99.5</b>	<b>104.9</b>	<b>99.5</b>	<b>96.6</b>
Agricultural implements.....	94.0	89.5	85.3	86.6	107.5	101.1	93.1	99.0
Electrical machinery, apparatus, and supplies.....	97.5	94.8	92.0	92.4	101.5	101.7	93.6	97.7
Pianos and organs.....	92.3	82.9	79.2	83.8	100.9	86.0	79.0	89.2
Rubber boots and shoes.....	80.3	86.5	80.6	80.7	82.4	97.4	90.2	91.3
Automobile tires.....	111.1	113.8	111.4	110.4	113.3	120.2	114.2	114.0
Shipbuilding, steel.....	88.6	99.7	93.3	89.3	94.6	103.7	100.1	91.4

Table 7 shows the general index of employment in manufacturing industries and the general index of pay-roll totals from January, 1923, to August, 1927.

Following Table 7 is a graph made from index numbers, showing clearly the course of employment for each month of 1926 and for each completed month of 1927, thus making possible a comparison between corresponding months of the two years. This chart represents the 54 separate industries combined and shows the course of pay-roll totals as well as the course of employment.

TABLE 7.—GENERAL INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, 1923, TO AUGUST, 1927

[Monthly average, 1923=100]

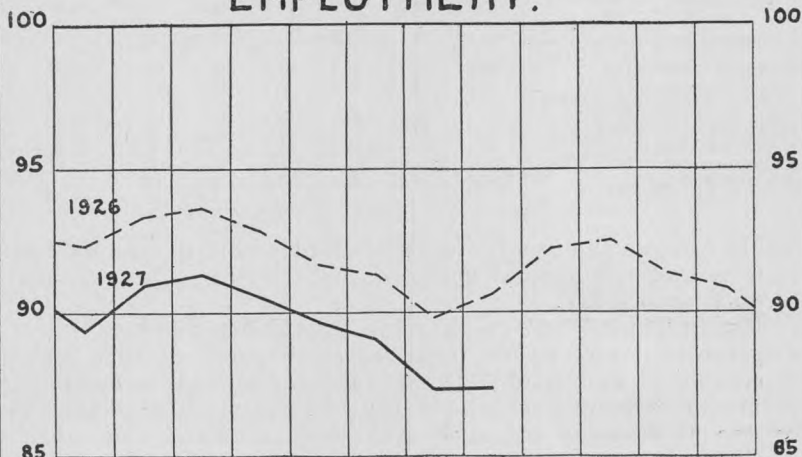
Month	Employment					Pay-roll totals				
	1923	1924	1925	1926	1927	1923	1924	1925	1926	1927
January.....	98.0	95.4	90.0	92.3	89.4	91.8	94.5	90.0	93.9	90.9
February.....	99.6	96.6	91.6	93.3	91.0	95.2	99.4	95.1	97.9	96.4
March.....	101.8	96.4	92.3	93.7	91.4	100.3	99.0	96.6	99.1	97.7
April.....	101.8	94.5	92.1	92.8	90.6	101.3	96.9	94.2	97.2	96.6
May.....	101.8	90.8	90.9	91.7	89.7	104.8	92.4	94.4	95.6	95.6
June.....	101.9	87.9	90.1	91.3	89.1	104.7	87.0	91.7	95.5	93.3
July.....	100.4	84.8	89.3	89.8	87.3	99.9	80.8	89.6	91.2	89.1
August.....	99.7	85.0	89.9	90.7	87.4	99.3	83.5	91.4	94.6	91.0
September.....	99.8	86.7	90.9	92.2	-----	100.0	86.0	90.4	95.1	-----
October.....	99.3	87.9	92.3	92.5	-----	102.3	88.5	96.2	98.6	-----
November.....	98.7	87.8	92.5	91.4	-----	101.0	87.6	96.2	95.4	-----
December.....	96.9	89.4	92.6	90.9	-----	98.9	91.7	97.3	95.6	-----
<b>Average.....</b>	<b>100.0</b>	<b>90.3</b>	<b>91.2</b>	<b>91.9</b>	<b>1 89.5</b>	<b>100.0</b>	<b>90.6</b>	<b>93.6</b>	<b>95.8</b>	<b>1 93.8</b>

<sup>1</sup> Average for 8 months.

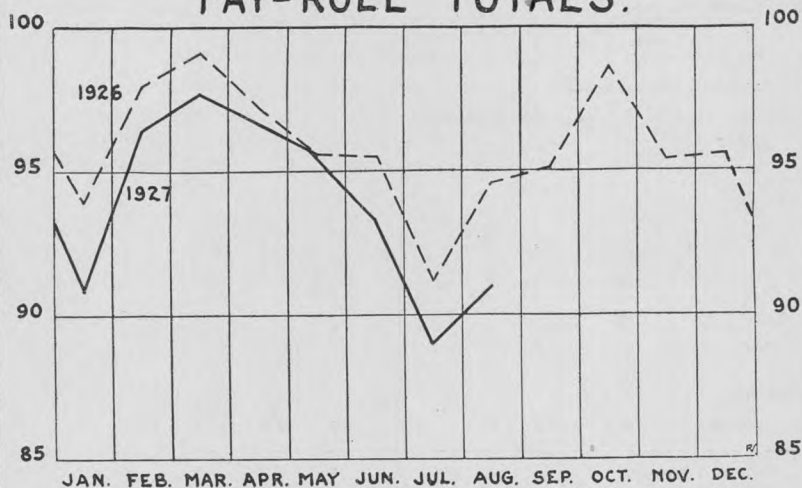
# MANUFACTURING INDUSTRIES. MONTHLY INDEXES - 1926 & 1927.

MONTHLY AVERAGE 1923 = 100.

## EMPLOYMENT.



## PAY-ROLL TOTALS.



**Proportion of Time Worked and Force Employed in Manufacturing Industries  
in August, 1927**

REPORTS from 8,760 establishments in August, 1927, show that 1 per cent of these establishments were idle, 79 per cent were operating on a full-time schedule, and 20 per cent on a part-time schedule; 34 per cent of the establishments had a full normal force of employees and 65 per cent were operating with reduced forces. The establishments in operation were employing an average of 87 per cent of a full normal force of employees, who were working an average of 97 per cent of full time. The average percentages were unchanged from those of the July report.

TABLE 8.—ESTABLISHMENTS WORKING FULL AND PART TIME AND EMPLOYING FULL AND PART WORKING FORCE IN AUGUST, 1927

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 in establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
<b>Food and kindred products</b> .....	<b>1,394</b>	<b>1</b>	<b>83</b>	<b>17</b>	<b>97</b>	<b>39</b>	<b>60</b>	<b>90</b>
Slaughtering and meat packing.....	149	—	86	14	98	44	56	92
Confectionery.....	224	2	58	40	92	12	86	67
Ice cream.....	170	—	99	1	100	35	65	85
Flour.....	283	2	69	29	92	49	48	96
Baking.....	558	—	94	6	100	44	56	97
Sugar refining, cane.....	10	—	80	20	89	30	70	80
<b>Textiles and their products</b> .....	<b>1,454</b>	<b>1</b>	<b>81</b>	<b>17</b>	<b>98</b>	<b>50</b>	<b>49</b>	<b>90</b>
Cotton goods.....	431	1	92	6	99	63	35	95
Hosiery and knit goods.....	180	1	76	23	97	44	56	89
Silk goods.....	174	1	80	20	97	49	50	93
Woolen and worsted goods.....	173	1	72	27	96	41	58	87
Carpets and rugs.....	20	5	60	35	97	50	45	82
Dyeing and finishing textiles.....	78	—	59	41	93	42	58	89
Clothing, men's.....	186	3	84	13	98	49	48	90
Shirts and collars.....	59	—	78	22	97	42	58	90
Clothing, women's.....	106	4	84	12	98	43	53	86
Millinery and lace goods.....	47	—	79	21	95	19	81	75
<b>Iron and steel and their products</b> .....	<b>1,545</b>	<b>1</b>	<b>66</b>	<b>33</b>	<b>94</b>	<b>22</b>	<b>77</b>	<b>84</b>
Iron and steel.....	161	3	73	24	94	16	81	82
Cast-iron pipe.....	41	10	56	34	89	29	61	93
Structural ironwork.....	127	—	93	7	99	39	61	86
Foundry and machine-shop products.....	859	(1)	63	36	94	19	81	83
Hardware.....	54	2	50	48	93	4	94	81
Machine tools.....	134	—	70	30	95	15	85	81
Steam fittings and steam and hot-water heating apparatus.....	94	—	61	39	95	46	54	93
Stoves.....	75	3	51	47	91	43	55	90
<b>Lumber and its products</b> .....	<b>929</b>	<b>2</b>	<b>79</b>	<b>19</b>	<b>97</b>	<b>29</b>	<b>70</b>	<b>86</b>
Lumber, sawmills.....	382	2	86	12	98	33	65	86
Lumber, millwork.....	204	1	79	20	98	23	76	81
Furniture.....	343	1	71	27	96	28	71	88
<b>Leather and its products</b> .....	<b>285</b>	<b>1</b>	<b>93</b>	<b>6</b>	<b>100</b>	<b>33</b>	<b>66</b>	<b>91</b>
Leather.....	102	1	95	4	100	37	62	89
Boots and shoes.....	183	1	92	7	100	31	68	92
<b>Paper and printing</b> .....	<b>672</b>	<b>(1)</b>	<b>85</b>	<b>14</b>	<b>98</b>	<b>47</b>	<b>53</b>	<b>94</b>
Paper and pulp.....	154	1	89	10	98	40	50	95
Paper boxes.....	129	—	67	33	96	28	72	89
Printing, book and job.....	246	(1)	84	16	98	43	56	93
Printing, newspapers.....	143	—	100	—	100	69	31	98
<b>Chemical and allied products</b> .....	<b>301</b>	<b>3</b>	<b>76</b>	<b>20</b>	<b>96</b>	<b>17</b>	<b>80</b>	<b>68</b>
Chemicals.....	96	1	95	3	99	29	70	90
Fertilizers.....	161	6	58	36	93	8	86	48
Petroleum refining.....	44	—	100	—	100	23	77	87

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

TABLE 8.—ESTABLISHMENTS WORKING FULL AND PART TIME AND EMPLOYING FULL AND PART WORKING FORCE IN AUGUST, 1927—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 in establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
<b>Stone, clay, and glass products</b> .....	<b>513</b>	<b>2</b>	<b>78</b>	<b>20</b>	<b>96</b>	<b>29</b>	<b>69</b>	<b>88</b>
Cement.....	89		96	4	99	24	76	89
Brick, tile, and terra cotta.....	291	2	76	22	97	31	67	89
Pottery.....	56	2	57	41	89	30	68	85
Glass.....	77	5	82	13	96	26	69	85
<b>Metal products, other than iron and steel</b> .....	<b>181</b>	<b>1</b>	<b>78</b>	<b>22</b>	<b>96</b>	<b>20</b>	<b>80</b>	<b>83</b>
Stamped and enameled ware.....	52		83	17	96	27	73	85
Brass, bronze, and copper products.....	129	1	76	23	96	17	82	82
<b>Tobacco products</b> .....	<b>118</b>	<b>8</b>	<b>62</b>	<b>31</b>	<b>95</b>	<b>27</b>	<b>65</b>	<b>87</b>
Chewing and smoking tobacco and snuff.....	23		70	30	95	22	78	82
Cigars and cigarettes.....	95	9	60	31	95	28	62	88
<b>Vehicles for land transportation</b> .....	<b>1,041</b>		<b>90</b>	<b>10</b>	<b>99</b>	<b>30</b>	<b>70</b>	<b>89</b>
Automobiles.....	137		80	20	96	16	84	78
Carriages and wagons.....	58		88	12	98	22	78	79
Car building and repairing, electric-railroad.....	328		94	6	100	39	61	95
Car building and repairing, steam-railroad.....	518		90	10	99	28	72	90
<b>Miscellaneous industries</b> .....	<b>327</b>	<b>(1)</b>	<b>73</b>	<b>27</b>	<b>96</b>	<b>24</b>	<b>76</b>	<b>82</b>
Agricultural implements.....	73	1	59	40	95	14	85	74
Electrical machinery, apparatus, and supplies.....	139		76	24	96	27	73	86
Pianos and organs.....	28		64	36	93	25	75	84
Rubber boots and shoes.....	10		50	50	89	30	70	79
Automobile tires.....	45		84	16	98	31	69	86
Shipbuilding, steel.....	32		94	6	100	25	75	75
<b>Average</b> .....	<b>8,760</b>	<b>1</b>	<b>79</b>	<b>20</b>	<b>97</b>	<b>34</b>	<b>65</b>	<b>87</b>

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

### Trend of Employment and Pay-roll Totals in Boot and Shoe Factories, by Districts, 1923 to 1927

THE trend of employment and of pay-roll totals in the three principal boot and shoe making districts of the United States—New England, Middle Atlantic, and North Central—is shown in the following table and accompanying chart.

The information collected is presented in the form of index numbers which show relatively the movement of employment and pay-roll totals from month to month—from January, 1923, to August, 1927. In computing these index numbers the monthly average for 1923 is used as a base, or 100. The data for 56 months are linked together by means of a chain index, the per cent of change from one month to the succeeding month being obtained by comparing reports from identical establishments for the two months. The number of establishments reporting has varied from month to month, and the average number in 1927 is greater than in 1923, but even in the earlier year so large a number of employees was represented in each district as to render the information representative of the industry as a whole in the respective districts.

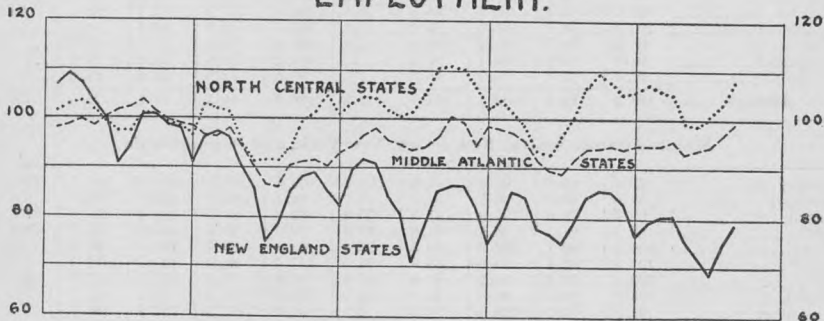
In August, 1927, the representation from each district was as follows: New England, 126 establishments, 36,929 employees, and \$895,231 pay-roll total; Middle Atlantic, 30 establishments, 26,283 employees, and \$719,759 pay-roll total; North Central, 56 establishments, 32,135 employees, and \$737,052 pay-roll total.

The range of employment has been greatest in the New England States, the index of employment standing at 109.2 in February, 1923,

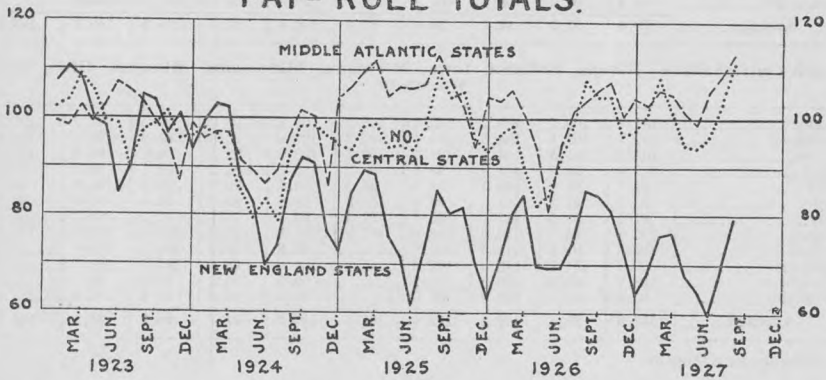
## TREND OF EMPLOYMENT & PAY-ROLL TOTALS IN BOOT & SHOE FACTORIES BY DISTRICTS.

MONTHLY AVERAGE 1923=100.

### EMPLOYMENT.



### PAY-ROLL TOTALS.



and at 68.5 in June, 1927; in the Middle Atlantic States the index of employment stood at 103.7 in August, 1923, and at 86.2 in July, 1924; and in the North Central States the index of employment stood at 107.9 in August, 1927, and at 91.2 in May, 1924.

The average indexes of employment for the eight months of 1927 are 76.3 in the New England division, 95.2 in the Middle Atlantic division, and 103.5 in the North Central division.

TABLE 9.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN BOOT AND SHOE FACTORIES, BY DISTRICTS

## New England States: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont

[Monthly average, 1923=100]

Month	Employment					Pay-roll totals				
	1923	1924	1925	1926	1927	1923	1924	1925	1926	1927
January.....	106.9	96.1	89.5	79.2	79.3	107.5	99.3	84.4	71.1	68.2
February.....	109.2	97.2	91.7	85.2	80.5	110.9	102.9	89.6	79.9	76.0
March.....	107.3	96.4	90.9	84.4	80.8	108.1	102.4	88.5	84.1	76.3
April.....	102.9	91.0	84.0	77.9	75.6	99.7	87.9	76.0	69.9	68.0
May.....	99.8	86.3	80.5	77.0	72.2	98.3	82.7	71.5	69.3	64.9
June.....	90.9	75.2	70.9	75.0	68.5	84.7	69.6	61.8	69.3	59.5
July.....	94.3	78.5	78.0	79.3	74.6	90.6	73.5	72.9	74.8	69.6
August.....	100.5	85.4	85.3	84.3	78.6	104.9	87.2	85.1	85.1	79.3
September.....	100.5	88.1	86.2	85.7	-----	103.7	92.2	80.2	84.1	-----
October.....	98.2	88.9	86.2	85.4	-----	97.0	90.7	81.7	81.0	-----
November.....	97.9	85.0	82.1	83.1	-----	101.2	76.6	70.6	73.6	-----
December.....	91.4	82.4	74.9	76.5	-----	93.5	72.8	63.0	63.9	-----
<b>Average.....</b>	<b>100.0</b>	<b>87.6</b>	<b>83.4</b>	<b>81.1</b>	<b>176.3</b>	<b>100.0</b>	<b>86.5</b>	<b>77.1</b>	<b>75.5</b>	<b>170.2</b>

## Middle Atlantic States: New Jersey, New York, and Pennsylvania

January.....	97.9	96.8	94.4	97.8	94.7	99.1	95.8	106.7	103.7	102.8
February.....	98.5	96.6	96.6	97.4	94.7	98.1	97.3	109.8	105.7	106.0
March.....	99.8	98.0	97.9	95.3	95.4	102.6	97.1	112.0	100.4	105.0
April.....	98.2	94.3	95.6	91.6	93.0	99.3	91.6	104.8	93.6	101.4
May.....	100.1	90.1	94.9	89.5	93.6	102.8	89.2	106.6	80.8	98.8
June.....	101.8	86.4	93.6	88.9	94.6	107.4	86.9	106.4	94.4	105.9
July.....	102.4	86.2	94.2	91.9	96.9	105.8	89.5	107.1	101.7	108.9
August.....	103.7	90.3	96.3	93.8	99.0	103.8	96.3	113.3	103.7	113.1
September.....	101.3	91.2	100.4	94.0	-----	99.6	101.8	107.4	106.2	-----
October.....	99.4	91.6	99.0	94.7	-----	95.4	100.1	102.4	107.6	-----
November.....	98.7	90.1	94.6	93.9	-----	87.4	86.1	94.2	100.7	-----
December.....	98.3	92.9	98.2	94.7	-----	98.8	104.1	104.5	104.4	-----
<b>Average.....</b>	<b>100.0</b>	<b>92.0</b>	<b>96.3</b>	<b>93.6</b>	<b>195.2</b>	<b>100.0</b>	<b>94.7</b>	<b>106.3</b>	<b>100.2</b>	<b>105.2</b>

## North Central States: Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin

January.....	101.7	102.7	103.2	103.9	107.2	102.4	98.0	93.4	96.7	101.2
February.....	102.7	102.1	104.5	101.4	106.2	103.6	96.8	98.2	98.2	108.4
March.....	103.5	101.5	104.2	98.5	105.1	108.8	92.5	98.8	90.2	101.4
April.....	102.0	94.8	101.9	93.5	99.0	105.7	85.2	94.1	82.0	94.5
May.....	99.7	91.2	100.3	92.6	98.5	99.7	79.4	94.3	84.0	94.0
June.....	97.5	91.8	101.6	96.6	100.8	98.8	83.1	93.8	91.6	96.5
July.....	97.5	91.5	105.1	100.5	103.4	90.7	78.7	97.7	98.7	103.1
August.....	100.8	94.1	110.8	106.8	107.9	97.3	92.3	109.9	108.0	111.5
September.....	100.5	99.4	111.3	109.6	-----	98.8	98.2	104.3	104.7	-----
October.....	99.4	101.7	110.3	107.8	-----	101.5	98.6	105.3	104.7	-----
November.....	98.3	104.9	106.8	105.2	-----	96.0	96.3	95.5	96.5	-----
December.....	96.8	101.1	102.4	105.9	-----	96.3	94.5	93.2	97.6	-----
<b>Average.....</b>	<b>100.0</b>	<b>98.1</b>	<b>105.2</b>	<b>101.9</b>	<b>103.5</b>	<b>100.0</b>	<b>91.1</b>	<b>98.2</b>	<b>96.1</b>	<b>101.3</b>

1 Average for 8 months.

## Employment and Total Earnings of Railroad Employees, July, 1926, and June and July, 1927

THE number of employees on the 15th of July, 1927, and the total earnings of employees in the entire month of July, 1927, on Class I railroads of the United States are shown in the table following, together with similar information for June, 1927, and July, 1926. The data are presented for all occupations combined, excluding executives and officials, and also for the six general groups of occupations; under each group data are shown separately for a few of the more important occupations.

Class I railroads are roads having operating revenues of \$1,000,000 a year and over.



EMPLOYMENT AND TOTAL MONTHLY EARNINGS OF RAILROAD EMPLOYEES—  
JULY, 1926, AND JUNE AND JULY, 1927

[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]

Occupation	Number of employees at middle of month			Total earnings		
	1926	1927		1926	1927	
	July	June	July	July	June	July
<b>Professional, clerical, and general</b>	<b>286, 771</b>	<b>281, 851</b>	<b>282, 554</b>	<b>\$39, 612, 098</b>	<b>\$39, 641, 215</b>	<b>\$39, 761, 287</b>
Clerks.....	168, 281	163, 820	163, 993	22, 059, 980	21, 828, 144	21, 844, 577
Stenographers and typists.....	25, 463	25, 313	25, 354	3, 145, 593	3, 199, 365	3, 181, 461
<b>Maintenance of way and structures</b>	<b>473, 517</b>	<b>482, 453</b>	<b>487, 429</b>	<b>44, 025, 554</b>	<b>45, 110, 703</b>	<b>44, 132, 344</b>
Laborers, extra gang and work train.....	86, 635	90, 911	95, 014	7, 036, 962	7, 342, 991	7, 353, 750
Laborers, track and roadway section.....	242, 737	250, 323	249, 940	18, 216, 799	18, 856, 452	18, 133, 629
<b>Maintenance of equipment and stores</b>	<b>517, 189</b>	<b>493, 059</b>	<b>489, 934</b>	<b>67, 513, 001</b>	<b>65, 615, 168</b>	<b>63, 711, 201</b>
Carmen.....	112, 328	105, 341	104, 730	16, 553, 702	15, 970, 598	15, 458, 541
Machinists.....	60, 353	59, 032	58, 509	9, 498, 530	9, 422, 292	9, 022, 725
Skilled-trades helpers.....	113, 824	108, 541	107, 858	12, 504, 663	12, 282, 934	11, 864, 902
Laborers (shops, engine houses, power plants, and stores).....	42, 736	41, 373	41, 292	4, 059, 908	3, 905, 597	3, 927, 301
Common laborers (shops, engine houses, power plants, and stores).....	60, 589	57, 029	56, 541	4, 967, 996	4, 700, 606	4, 512, 247
<b>Transportation, other than train, engine, and yard</b>	<b>210, 666</b>	<b>205, 918</b>	<b>206, 027</b>	<b>26, 088, 564</b>	<b>25, 534, 362</b>	<b>25, 718, 239</b>
Station agents.....	30, 691	30, 445	30, 460	4, 849, 191	4, 741, 748	4, 773, 881
Telegraphers, telephoners, and towermen.....	25, 481	24, 665	24, 614	3, 916, 469	3, 731, 747	3, 805, 589
Truckers (stations, warehouses, and platforms).....	38, 389	36, 929	35, 729	3, 577, 261	3, 504, 995	3, 367, 194
Crossing and bridge flagmen and gatemen.....	22, 528	22, 003	21, 989	1, 696, 488	1, 703, 355	1, 700, 879
<b>Transportation (yardmasters, switch tenders, and hostlers)</b>	<b>24, 233</b>	<b>23, 357</b>	<b>23, 516</b>	<b>4, 594, 931</b>	<b>4, 456, 889</b>	<b>4, 589, 549</b>
<b>Transportation, train and engine</b>	<b>327, 995</b>	<b>317, 818</b>	<b>316, 810</b>	<b>65, 261, 287</b>	<b>62, 918, 817</b>	<b>63, 590, 903</b>
Road conductors.....	37, 412	36, 159	36, 361	8, 871, 204	8, 619, 369	8, 736, 507
Road brakemen and flagmen.....	75, 140	72, 536	72, 078	13, 067, 538	12, 559, 928	12, 638, 734
Yard brakemen and yard helpers.....	53, 956	52, 523	52, 270	9, 166, 769	9, 131, 720	9, 232, 908
Road engineers and motormen.....	44, 596	42, 889	42, 960	11, 894, 315	11, 079, 718	11, 214, 468
Road firemen and helpers.....	45, 933	44, 018	43, 936	8, 837, 159	8, 490, 326	8, 640, 680
<b>All occupations</b> .....	<b>1, 840, 371</b>	<b>1, 804, 456</b>	<b>1, 806, 270</b>	<b>247, 095, 438</b>	<b>243, 277, 154</b>	<b>241, 593, 823</b>

State Reports on Employment  
California

THE following data, taken from the August, 1927, issue of the Labor Market Bulletin show changes in number of employees and in amount of weekly pay roll of 736 industrial establishments in California from July, 1926, to July, 1927:

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF WEEKLY PAY ROLL IN 736 CALIFORNIA ESTABLISHMENTS BETWEEN JULY, 1926, AND JULY, 1927

Industry	Number of establishments reporting	Employees		Weekly pay roll	
		Number in July, 1927	Per cent of change as compared with July, 1926	Amount in July, 1927	Per cent of change as compared with July, 1926
Stone, clay, and glass products:					
Miscellaneous stone and mineral products.....	13	1, 644	+12.1	\$53, 355	+16.1
Lime, cement, plaster.....	6	1, 611	-8.5	52, 303	-2.8
Brick, tile, pottery.....	18	3, 002	+19.8	71, 896	+23.9
Glass.....	8	870	+2.7	29, 310	+6.7
<b>Total</b> .....	<b>45</b>	<b>7, 127</b>	<b>+8.3</b>	<b>206, 864</b>	<b>+11.6</b>

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF WEEKLY PAY ROLL IN 736 CALIFORNIA ESTABLISHMENTS BETWEEN JULY, 1926, AND JULY, 1927—Continued

Industry	Number of establishments reporting	Employees		Weekly pay roll	
		Number in July, 1927	Per cent of change as compared with July, 1926	Amount in July, 1927	Per cent of change as compared with July, 1926
<b>Metals, machinery, and conveyances:</b>					
Agricultural implements	7	1,471	+5.5	\$42,016	+7.9
Automobiles, including bodies and parts	13	1,855	-32.9	54,581	-39.3
Brass, bronze, and copper products	9	927	-14.4	27,362	-8.1
Engines, pumps, boilers, and tanks	8	934	+6.3	28,938	-2.2
Iron and steel forging, bolts, nuts, etc.	6	2,200	-6.7	60,650	-13.7
Structural and ornamental steel	19	4,792	+9.8	155,156	+20.8
Ship and boat building and naval repairs	5	1,431	-22.7	40,387	-30.7
Tin cans	7	2,103	-20.9	59,447	-16.5
Other iron-foundry and machine-shop products	68	6,311	-5.2	184,929	-6
Other sheet-metal products	20	1,554	-2	46,017	+4
Cars, locomotives, and railway repair shops	18	8,060	+4.4	237,158	+11.8
Total	180	31,638	-5.0	936,041	-2.5
<b>Wood manufactures:</b>					
Sawmills and logging	20	11,289	+2.9	286,738	+3.0
Planing mills, sash and door factories, etc.	57	9,346	-1.3	260,131	-3.4
Other wood manufactures	41	4,242	+3.0	120,020	+8.0
Total	118	24,877	+1.3	666,889	+1.2
<b>Leather and rubber goods:</b>					
Tanning	8	920	+11.0	25,412	+15.5
Finished leather products	5	451	-8.5	9,701	-10.4
Rubber products	6	2,706	+4.3	78,380	+5.5
Total	19	4,077	+4.1	113,493	+5.9
<b>Chemicals, oils, paints, etc.:</b>					
Explosives	4	501	-5.5	13,883	-7.6
Mineral oil refining	7	10,149	-18.1	396,583	-14.8
Paints, dyes, and colors	7	660	+3.0	16,614	+1.4
Miscellaneous chemical products	13	1,971	-9.0	52,404	-3.9
Total	31	13,281	-15.6	479,484	-13.0
<b>Printing and paper goods:</b>					
Paper boxes, bags, cartons, etc.	12	1,699	+6.9	49,724	+41.2
Printing	53	2,450	-3	86,364	-1.8
Publishing	14	2,664	+9	97,988	+1
Other paper products	9	1,047	+5.2	23,864	+10.1
Total	88	7,860	+3.7	257,940	+6.3
<b>Textiles:</b>					
Knit goods	12	951	-7	20,754	+24.7
Other textile products	6	1,613	+2.5	33,559	+9.5
Total	18	2,564	+1.3	54,313	+14.9
<b>Clothing, millinery, and laundering:</b>					
Men's clothing	24	2,600	-3.6	52,208	-5.3
Women's clothing	9	995	+17.2	21,235	+32.9
Millinery	6	352	+50.4	6,355	+50.4
Laundering, cleaning, and dyeing	19	3,066	+6.4	66,819	+4.1
Total	58	7,013	+5.3	146,617	+5.1
<b>Foods, beverages, and tobacco:</b>					
Canning, preserving of fruits and vegetables	33	13,722	-17.0	199,286	-21.3
Canning, packing of fish	7	588	-7.5	6,922	-2.2
Confectionery and ice cream	23	1,502	-4.5	36,456	-5.2
Groceries, not elsewhere specified	4	387	-14.9	9,073	-10.3
Bread and bakery products	20	3,106	-4	85,733	+2.0
Sugar	6	3,033	+3.2	81,562	+9.9
Slaughtering and meat products	14	2,646	+4.4	78,885	+4.0
Cigars and other tobacco products	3	628	+4.8	12,085	+7.8
Beverages	4	429	-1.6	12,388	-6.7
Dairy products	10	2,540	+16.7	80,025	+9.2
Flour and grist mills	11	774	-15.2	22,204	-8.6
Ice manufactures	15	1,179	-11.7	39,038	-10.7
Other food products	13	755	-15.2	16,547	-4.1
Total	163	31,289	-8.4	680,204	-6.3
Water, light, and power	4	3,376	+2.4	95,979	+4.0
Miscellaneous	12	2,046	-2.4	54,800	+2.2
Grand total, all industries	736	135,148	-3.8	3,693,224	-1.9

## Illinois

THE July, 1927, issue of the Labor Bulletin, published by the Illinois Department of Labor, contains the following statistics showing the changes in employment and earnings in Illinois factories in June, 1927, as compared with May, 1927:

## CHANGES IN EMPLOYMENT AND EARNINGS IN ILLINOIS FACTORIES FROM MAY TO JUNE, 1927

Industry	Per cent of change from May to June, 1927			
	Employment			Total earnings
	Males	Females	Total employees	
Stone, clay, and glass products:				
Miscellaneous stone and mineral products.....	+2.3	-1.4	+2.2	+5.3
Lime, cement, and plaster.....	+3.8	+66.7	+4.4	+14.5
Brick tile and pottery.....	-3.7	-5.9	-3.7	-4.3
Glass.....	+14.6	+2	+12.8	+19.2
Total.....	+3.8	+1	+3.6	+5.4
Metals, machinery, conveyances:				
Iron and steel.....	-2.9	+2.5	-2.9	+1.3
Sheet-metal work and hardware.....	-1.7	+4.0	-1.8	-1.0
Tools and cutlery.....	-2.3	-8.1	-2.9	-5.2
Cooking, heating, ventilating apparatus.....	-3.1	-4.5	-3.2	-8.1
Brass, copper, zinc, babbitt metal.....	-1.2	-4.4	-1.2	+1.1
Cars and locomotives.....	+4.2	-6.4	+4.0	+7.7
Automobiles and accessories.....	-7.8	-7.8	-7.5	-6.8
Machinery.....	-5	+2.7	-6	-6
Electrical apparatus.....	-2.0	-1.3	-5.0	-1.2
Agricultural implements.....	-7	0.0	-7	-1.4
Instruments and appliances.....	-2.6	-10.8	-3.9	-3.7
Watches, watchcases, clocks, and jewelry.....	-4.3	-6.0	-5.0	-7.8
Total.....	-1.9	-2.1	-2.9	-8
Wood products:				
Sawmill and planing-mill products.....	+12.3	-16.7	+11.6	+25.1
Furniture and cabinet work.....	+3	+7	+3	+4.3
Pianos, organs, and other musical instruments.....	+8	+22.7	+2.1	+4.2
Miscellaneous wood products.....	+4.1	+6.3	+4.2	+7.0
Household furnishings.....	+2.0	+4.5	+2.8	+1.0
Total.....	+3.3	+3.6	+3.3	+8.2
Furs and leather goods:				
Leather.....	+3.4	+3.2	+3.4	+10.2
Furs and fur goods.....	+2.2	-7.9	-2.4	-5.9
Boots and shoes.....	+6.8	+7.5	+2.9	+5.7
Miscellaneous leather goods.....	+6	+8.4	+5.4	+2.6
Total.....	+4.9	+7.1	+3.1	+6.3
Chemicals, oils, paints, etc.:				
Drugs and chemicals.....	-7	-6	-7	+6.5
Paints, dyes, and colors.....	+8	+7.2	+3.4	+7.1
Mineral and vegetable oil.....	-8.0	-8.4	-8.0	-2.9
Miscellaneous chemical products.....	+1.1	+12.7	+2.6	+5.7
Total.....	-3.0	+2.6	-1.6	+2.8
Printing and paper goods:				
Paper boxes, bags, and tubes.....	+2.9	-3.3	+9	-8
Miscellaneous paper goods.....	-1.9	-5.2	-3.3	-1.3
Job printing.....	+5.2	-5.4	+2.5	+4.2
Newspapers and periodicals.....	-1.5	-10.8	-4.0	-2.4
Edition bookbinding.....	-1.8	+8.8	+1.1	+6.4
Total.....	+2.5	-3.8	+4	+1.7

## CHANGES IN EMPLOYMENT AND EARNINGS IN ILLINOIS FACTORIES FROM MAY TO JUNE, 1927—Continued

Industry	Per cent of change from May to June, 1927			
	Employment			Total earnings
	Males	Females	Total employees	
<b>Textiles:</b>				
Cotton and woolen goods.....	+1.7	+6.9	+2.9	+9
Knit goods, cotton and woolen hosiery.....	+5.0	-3.3	+2.5	+6.3
Thread and twine.....	-11.9	-5.9	-12.9	-14.6
Total.....	-2	-1.5	+3	+7
<b>Clothing, millinery, laundering:</b>				
Men's clothing.....	+5.7	+1.9	+2.1	+22.5
Men's shirts and furnishings.....	+5.9	-1.4	+3.3	+4.3
Overalls and work clothing.....	-11.1	-2.2	-3.2	+3.4
Men's hats and caps.....	-8.3	+18.2	0.0	+98.5
Women's clothing.....	-13.8	-10.5	-11.1	-9.9
Women's underwear.....	-2.2	-1.0	+1.3	-10.3
Women's hats.....	+13.4	-26.8	-18.0	-24.6
Laundering, cleaning, and dyeing.....	+4.2	+1.5	+2.3	+2.2
Total.....	+4.3	-1.8	+1	+12.1
<b>Food, beverages, and tobacco:</b>				
Flour, feed, and other cereal products.....	-8	+5.2	-3	+2.5
Fruit and vegetable canning and preserving.....	-2.4	+5.6	-7	+8.9
Miscellaneous groceries.....	-2.1	+1.9	-5.1	+6.0
Slaughtering and meat packing.....	+9.6	+10.6	+9.8	+7.9
Dairy products.....	-1	-6.9	-5	+2.4
Bread and other bakery products.....	+6.2	-1.9	+3.6	+2.8
Confectionery.....	-3.6	+1.3	+5	+5.3
Beverages.....	+6.5	-1.2	+1.7	+1.2
Cigars and other tobacco products.....	+17.0	+6.8	+11.3	+19.0
Manufactured ice.....	+5.0	-	+5.0	+14.6
Ice cream.....	+8.7	+17.2	+9.5	+5.2
Total.....	+6.4	+5.0	+5.0	+6.9
Total all manufacturing industries.....	+7	+2	-3	+2.6
<b>Trade—Wholesale and retail:</b>				
Department stores.....	-8	+1.9	+9	+9
Wholesale dry goods.....	+1.7	-19.1	-8.9	-10.4
Wholesale groceries.....	-3.0	+2.5	-1.6	-1.2
Mail-order houses.....	+8	+2.1	-1.2	-1.2
Total.....	+2	+1.2	-1.1	-1.2
<b>Public utilities:</b>				
Water, light, and power.....	-3.6	-3.5	-1.4	-1.3
Telephone.....	+1.0	+2.2	+1.8	+4.0
Street railways.....	+4	+9	+3	+2.3
Railway car repair shops.....	+1.7	+2.6	+1.7	+6.2
Total.....	+3	+2.0	+7	+2.5
Coal mining.....	+14.8	-	+14.8	+23.1
<b>Building and contracting:</b>				
Building construction.....	+4.5	-	+4.5	+2.6
Road construction.....	+24.5	-	+24.5	+5.8
Miscellaneous contracting.....	+10.4	-	+10.4	-7.0
Total.....	+6.8	-	+6.8	+1.1
Total, all industries.....	+9	+9	+1	+2.4

Iowa

THE August, 1927, issue of the Iowa Employment Survey, published by the bureau of labor of that State, shows the following changes in volume of employment from July to August, 1927:

CHANGES IN VOLUME OF EMPLOYMENT IN IOWA, JULY TO AUGUST, 1927

Industry	Number of firms reporting	Employees on pay roll, August, 1927		Industry	Number of firms reporting	Employees on pay roll, August, 1927	
		Number	Per cent of change as compared with July, 1927			Number	Per cent of change as compared with July, 1927
Food and kindred products:				Leather products:			
Meat packing.....	8	7,069	-1.4	Shoes.....	2	241	+2.1
Cereals.....	2	949	0.0	Saddlery and harness.....	3	115	+19.8
Flour.....	3	116	-17.2	Fur goods and tanning.....	4	66	+6.5
Bakery products.....	8	839	0.0	Gloves and mittens.....	3	299	+4.2
Confectionery.....	6	373	+19.2	Total.....	12	721	+5.9
Poultry, produce, butter, etc.....	9	665	-10.6	Paper products, printing and publishing:			
Sugar, starch, sirup, glucose, etc.....	3	1,440	+2.5	Paper products.....	5	332	+5.7
Other food products, coffee, etc.....	8	395	+8.8	Printing and publishing.....	12	2,203	+2.7
Total.....	47	11,846	-7	Total.....	17	2,535	+3.0
Textiles:				Patent medicines, chemicals and compounds.....	8	451	+2.7
Clothing, men's.....	10	1,129	+9	Stone and clay products:			
Millinery.....	2	149	-2.0	Cement, plaster, gypsum.....	9	2,347	-8.0
Clothing, women's, and woolen goods.....	3	565	-3.9	Brick and tile.....	14	1,218	-6
Hosiery, awnings, etc.....	5	667	-5	Marble and granite, crushed rock and stone.....	3	96	+17.1
Buttons, pearl.....	7	430	+8.0	Total.....	26	3,661	-5.1
Total.....	27	2,940	+4	Tobacco and cigars.....	3	276	-4
Iron and steel works:				Railway car shops.....	8	10,124	+1.0
Foundry and machine shops.....	28	3,520	+4.1	Various industries:			
Brass, bronze products, plumbers' supplies.....	4	306	0.0	Auto tires and tubes.....	2	154	0.0
Autos, tractors, and engines.....	5	2,086	+8.9	Brooms and brushes.....	5	165	+3.8
Furnaces.....	7	307	+1.3	Laundries.....	4	177	-2.8
Pumps.....	4	255	-1.6	Mercantile.....	6	2,430	+7
Agricultural implements.....	8	784	+7.3	Public service.....	4	3,937	0.0
Washing machines.....	8	2,297	0.0	Seeds.....	2	213	-22.6
Total.....	64	9,555	+3.9	Wholesale houses.....	22	1,081	+6
Lumber products:				Commission houses.....	7	237	-7.8
Millwork, interiors, etc.....	16	2,646	-7	Other industries.....	9	2,082	20.1
Furniture, desks, etc.....	8	1,124	+14.8	Total.....	61	10,476	+2.9
Refrigerators.....	3	112	+33.3	Grand total.....	309	56,710	+1.4
Coffins, undertakers' supplies.....	5	153	-2.6				
Carriages, wagons, truck bodies.....	4	90	-6.3				
Total.....	36	4,125	+3.6				

## Maryland

THE following report on volume of employment in Maryland from July to August, 1927, was furnished by the commissioner of labor and statistics of Maryland:

## CHANGES IN EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN MARYLAND IN AUGUST, 1927

Industry	Estab-lish-ments report-ing for both months	Employment		Pay roll	
		Number of em-ployees, August, 1927	Per cent of change as com-pared with July, 1927	Amount, August, 1927	Per cent of change as com-pared with July, 1927
Bakery.....	3	348	-2.0	\$9,089.26	-0.8
Beverages and soft drinks.....	3	178	+5	5,424.51	+9.6
Boots and shoes.....	8	1,317	+15.3	24,870.54	+17.9
Boxes, fancy, and paper.....	7	379	+7	5,011.74	+5.8
Boxes, wooden.....	5	225	+4.6	3,648.99	+3
Brass and bronze.....	4	2,452	+24.7	52,878.82	+3.1
Brick, tile, etc.....	5	729	-3.4	19,888.49	+2.7
Brushes.....	5	597	-3.3	11,686.35	-3
Car building and repairing.....	4	359	-5.8	12,059.12	-7
Chemicals.....	6	1,183	+2.2	32,900.09	+3.3
Clothing, men's outer garments.....	5	2,385	+7.7	48,105.82	+8.8
Clothing, women's outer garments.....	4	747	-3	8,513.22	-2.1
Confectionery.....	6	645	-1.9	9,094.65	+7.6
Cotton goods.....	4	2,020	-6.6	31,278.29	-6.8
Fertilizer.....	4	666	+5.8	15,559.66	+14.6
Food preparation.....	4	144	-6.5	3,552.21	+1.0
Foundry.....	10	1,214	-9	31,787.28	+1.0
Furnishing goods, men's.....	4	806	-1.3	10,918.33	-1.4
Furniture.....	8	693	+17.8	17,076.53	+7.2
Glass manufacture.....	3	923	-8.0	20,664.80	-4.1
Ice cream.....	3	185	-----	5,476.45	-1
Leather goods.....	5	550	-2.3	13,318.77	-2.9
Lithographing.....	3	523	+3	15,566.02	+1.7
Lumber and planing.....	9	628	-4.9	17,150.75	-5.4
Mattresses and spring beds.....	4	153	-7.2	4,814.07	+2
Pianos.....	3	961	+1.4	23,912.68	+2.1
Plumbers' supplies.....	4	1,123	-6.2	29,211.24	-3.0
Printing.....	10	1,328	-2	44,682.27	-4.1
Rubber-tire manufacturing.....	1	2,731	-6.4	145,309.66	+1.3
Shipbuilding.....	3	722	-7.6	19,628.86	-14.0
Shirts.....	4	562	+7.2	7,362.80	+10.1
Stamping and enameling ware.....	4	1,164	-2.2	22,377.63	+2.6
Tinware.....	4	2,938	+12.9	64,661.70	+12.8
Tobacco.....	6	629	+6.7	8,299.80	+6.2
Miscellaneous.....	16	4,109	+1.2	97,649.81	+4.4

## 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 June, 1927, to July, 1927:

NUMBER OF EMPLOYEES IN 1,025 MANUFACTURING ESTABLISHMENTS IN MASSACHUSETTS, WEEK INCLUDING OR ENDING NEAREST TO JUNE 15 AND JULY 15, 1927

Industry	Number of establishments	Number of wage earners employed			
		June, 1927	July 1927		
			Full time	Part time	Total
Bookbinding.....	15	909	793	109	902
Boot and shoe cut stock and findings.....	43	2,117	2,102	107	2,209
Boots and shoes.....	80	21,050	20,241	3,453	23,694
Boxes, paper.....	27	2,016	1,315	688	2,003
Boxes, wooden packing.....	12	1,021	697	299	996
Bread and other bakery products.....	48	4,531	4,519	32	4,551
Carpets and rugs.....	5	3,519	3,138	287	3,425
Cars and general shop construction and repairs, steam railroads.....	4	2,832	-----	2,814	2,814
Clothing, men's.....	28	4,129	3,028	822	3,990
Clothing, women's.....	34	1,494	1,022	365	1,387
Confectionery.....	18	3,733	2,300	1,128	3,428
Copper, tin, sheet iron, etc.....	15	499	437	43	480
Cotton goods.....	52	40,771	34,003	6,215	40,218
Cutlery and tools.....	20	2,090	1,037	716	1,753
Dyeing and finishing textiles.....	9	6,624	3,063	3,396	6,459
Electrical machinery, apparatus, and supplies.....	14	9,226	7,702	1,280	8,982
Foundry products.....	26	2,692	1,697	1,005	2,702
Furniture.....	36	3,605	1,682	1,809	3,491
Gas and by-products.....	13	1,192	1,218	-----	1,218
Hosiery and knit goods.....	12	4,546	1,973	1,459	3,432
Jewelry.....	33	2,217	1,232	871	2,203
Leather, tanned, curried, and finished.....	32	6,105	5,876	261	6,137
Machine-shop products.....	45	5,709	5,219	305	5,524
Machine and other tools.....	26	2,665	1,811	721	2,532
Motor vehicles, bodies, and parts.....	16	2,567	1,181	1,717	2,898
Musical instruments.....	13	1,039	768	293	1,061
Paper and wood pulp.....	26	6,427	3,953	2,122	6,075
Printing and publishing, book and job.....	50	3,353	2,723	382	3,105
Printing and publishing, newspapers.....	18	2,364	2,271	8	2,279
Rubber footwear.....	3	8,540	7,347	-----	7,347
Rubber goods.....	7	2,757	2,725	-----	2,725
Silk goods.....	10	4,205	3,593	462	4,055
Slaughtering and meat packing.....	5	1,552	1,680	54	1,634
Stationery goods.....	12	1,680	1,444	138	1,582
Steam fittings and steam and hot-water heating apparatus.....	9	1,759	1,515	174	1,689
Stoves and stove linings.....	5	1,500	282	811	1,093
Textile machinery and parts.....	12	4,037	1,981	2,002	3,983
Tobacco.....	5	641	242	405	647
Woolen and worsted goods.....	58	18,587	9,572	8,587	18,159
All other industries.....	129	31,279	23,451	5,845	29,296
Total, all industries.....	1,025	227,579	170,873	51,285	222,158

## New Jersey

THE New Jersey Department of Labor has furnished the following data showing the changes in volume of employment and pay roll from June to July, 1927, in 855 establishments in that State:

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF WEEKLY PAY ROLL IN 855 NEW JERSEY ESTABLISHMENTS, JULY, 1927, COMPARED WITH JUNE, 1927

Industry	Number of plants reporting	Employees		Weekly pay roll	
		Number in July, 1927	Per cent of change as compared with June, 1927	Amount in July, 1927	Per cent of change as compared with June, 1927
<b>Food and kindred products:</b>					
Baking.....	16	1,411	+1.4	\$45,248	-3.0
Canning and preserving.....	8	3,586	-2.9	76,458	+6
Confectionery and ice cream.....	7	308	-6.4	7,832	+3.7
Provisions.....	3	1,816	-1.6	38,806	-1.5
Other food products.....	11	1,804	-31.7	47,817	-37.8
Total.....	45	8,425	-10.3	216,161	-11.9
<b>Textiles and their products:</b>					
Carpets and rugs.....	3	1,175	-2.1	31,963	-8.0
Clothing.....	29	4,122	-4.5	80,885	-8.4
Cotton goods.....	15	7,392	-1.3	112,947	-20.0
Dyeing and finishing textiles.....	38	10,803	-4.8	272,537	-3.1
Hats and caps.....	6	1,086	-5	31,102	+1.3
Hosiery and knit goods.....	17	3,622	-4.1	97,283	-7.6
Millinery and lace.....	10	903	-2.2	16,396	+1.6
Shirts and collars.....	9	1,916	-5.8	36,365	-3.2
Silk goods.....	57	8,416	-6.3	208,980	-5.5
Woolen and worsted goods.....	18	9,972	+36.4	261,622	+44.8
Miscellaneous textile products.....	10	1,933	-3.4	41,923	-7.1
Total.....	212	51,340	+1.7	1,192,003	+8
<b>Iron and steel and their products:</b>					
Cast-iron pipe.....	6	3,515	-3	94,782	-9.6
Electrical machinery, apparatus, and supplies.....	28	19,919	-2.6	514,296	-7.0
Foundry and machine-shop products.....	79	18,278	+9	534,016	-2.1
Hardware.....	7	908	-1.9	27,570	+2.8
Iron and steel forgings.....	8	803	+1.0	23,766	+4.0
Machine tools.....	22	3,297	-4.1	91,134	-8.9
Steam fittings and steam and hot-water heating apparatus.....	13	3,914	+8	111,587	-4.9
Structural-iron work.....	10	1,544	-1.6	46,633	-3.2
Total.....	173	52,178	-1.0	1,443,784	-4.9
<b>Lumber and its products:</b>					
Furniture.....	5	1,221	-3.6	34,235	-6.5
Lumber and millwork.....	13	707	-1.8	20,207	-1.0
Total.....	18	1,928	-3.0	54,442	-4.5
<b>Leather and its products:</b>					
Boots and shoes.....	7	1,146	-1.1	26,040	-4.9
Leather.....	22	3,173	-9	91,111	-5.3
Leather products.....	4	513	-1.9	10,853	+3.4
Total.....	33	4,832	-1.1	128,004	-4.5
<b>Tobacco products.....</b>					
	12	3,511	+10.3	62,030	+5.0
<b>Paper and printing:</b>					
Paper and pulp.....	22	3,844	-5.3	99,797	-9.2
Paper boxes.....	18	1,542	+8	30,905	+3
Printing, book and job.....	12	2,378	+6.6	81,715	-6
Printing, newspapers.....	10	2,049	+3.7	82,086	-2.1
Total.....	62	9,813	+2	294,503	-4.0



PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF WEEKLY PAY ROLL IN 855 NEW JERSEY ESTABLISHMENTS, JULY, 1927, COMPARED WITH JUNE, 1927—Continued

Industry	Number of plants reporting	Employees		Weekly pay roll	
		Number in July, 1927	Per cent of change as compared with June, 1927	Amount in July, 1927	Per cent of change as compared with June, 1927
<b>Chemicals and allied products:</b>					
Chemicals.....	42	8,921	-1.0	\$248,044	-3.5
Explosives.....	6	2,300	+4.5	6,145	-8.3
Oils and greases.....	9	1,474	-3.1	43,129	-5.6
Paints and varnish.....	13	1,725	-5.3	52,504	-7.8
Petroleum refining.....	8	14,873	- .3	495,158	-10.8
Total.....	78	29,293	- .6	898,980	-8.3
<b>Stone, clay, and glass products:</b>					
Brick, tile, and terra cotta.....	27	4,328	-1.0	124,169	-13.2
Glass.....	7	3,198	-5.9	66,691	-9.2
Pottery.....	21	3,870	-17.8	119,970	-14.5
Other products.....	2	1,001	+ .3	36,012	-2.8
Total.....	57	12,397	-7.9	346,842	-11.9
<b>Metal products, other than iron and steel:</b>					
Brass, bronze, and copper products.....	11	601	+3.1	19,677	+6.5
Sheet-metal and enamel ware.....	21	4,350	-1.7	112,529	-5.2
Smelting and refining.....	9	3,727	+3.9	118,758	+1.5
Wire and wire goods.....	14	7,271	-3.6	173,253	-19.4
Total.....	55	15,949	-1.2	424,217	-9.5
<b>Vehicles for land transportation:</b>					
Automobiles and parts.....	13	6,121	+ .7	194,896	- .3
Car building and repairing, steam railroad.....	9	4,701	+1.6	139,626	-2.6
Total.....	22	10,822	+1.1	334,522	-1.3
<b>Miscellaneous industries:</b>					
Cork and cork specialties.....	5	1,560	-8.1	41,216	-9.4
Jewelry and novelties.....	28	3,748	- .7	105,208	-5.7
Laundries.....	8	964	+2.0	19,562	+2.2
Musical instruments.....	4	7,361	-2.3	216,141	+5.6
Rubber tires and goods.....	29	9,205	-6.0	248,125	-9.2
Shipbuilding.....	6	6,513	+2.3	201,666	+3.4
Unclassified.....	8	3,033	-8.4	91,676	-5.8
Total.....	88	32,384	-3.1	923,594	-2.4
<b>Total, all industries.....</b>	<b>855</b>	<b>232,872</b>	<b>-1.2</b>	<b>6,319,082</b>	<b>-4.7</b>

## Pennsylvania

THE Bureau of Statistics of the Department of Labor and Industry of Pennsylvania furnished the following report on changes in employment, in weekly man-hours, and in pay-roll totals in Pennsylvania from July to August, 1927:

PER CENT OF CHANGES IN NUMBER OF EMPLOYEES, IN TOTAL WEEKLY MAN-HOURS, AND IN WEEKLY PAY ROLL IN 490 PENNSYLVANIA ESTABLISHMENTS BETWEEN JULY AND AUGUST, 1927

Industry	Number of plants reporting	Number of wage earners		Total weekly man-hours		Total weekly pay roll: Per cent of change July to August, 1927
		Week ending August 15, 1927	Per cent of change as compared with July, 1927	Week ending August 15, 1927	Per cent of change as compared with July, 1927	
<b>Metal manufactures:</b>						
Automobiles, bodies, and parts.....	16	7,844	-6.1	384,741	-6.6	-6.1
Car construction and repair.....	13	8,377	+1.7	383,302	+7.3	+10.4
Electrical machinery and apparatus.....	15	5,289	+3.6	259,368	+13.9	+13.1
Engines, machines, and machine tools.....	31	8,780	-5.2	423,274	-3.8	-3.6
Foundries and machine shops.....	43	7,541	-2.3	345,266	+1	-2
Heating appliances and apparatus.....	6	1,656	+4.0	83,964	+29.9	+28.1
Iron and steel blast furnaces.....	9	7,804	-3.7	372,840	+1.9	+2.5
Iron and steel forgings.....	6	1,431	-1.2	59,796	+8.5	+16.4
Steel works and rolling mills.....	22	30,482	-6.9	1,373,950	+2	+3
Structural iron works.....	11	1,802	-3.7	93,933	+5.3	+3.6
Miscellaneous iron and steel products.....	17	10,642	+1.7	504,603	+6.8	+7.1
Shipbuilding.....	3	4,049	-2.3	156,062	-9.9	-3.8
Hardware.....	6	1,135	+11.3	45,756	+8.1	+10.3
Nonferrous metals.....	7	765	-5	36,024	-1.2	+2.3
Total.....	205	97,597	-3.2	4,522,899	+1.6	+2.2
<b>Textile products:</b>						
Carpets and rugs.....	6	1,616	-18.2	79,305	-18.2	-19.9
Clothing.....	10	920	-8.2	40,992	-9.1	-5.1
Cotton goods.....	12	1,514	-9	74,076	-1	+2.0
Silk goods.....	21	8,510	+2.4	374,027	+12.0	+13.9
Woolens and worsteds.....	8	2,418	+8.5	116,139	+16.0	+19.9
Knit goods and hosiery.....	13	5,824	-1.1	207,008	-1.9	+7.0
Dyeing and finishing textiles.....	3	283	-1.7	12,385	+1.2	+2.2
Total.....	73	21,085	-6	903,932	+3.5	+6.7
<b>Foods and tobacco:</b>						
Bakeries.....	17	1,461	-2.3	74,481	-3.3	-1.5
Confectionery and ice cream.....	10	2,591	-1.3	134,051	-1.7	-5
Slaughtering and meat packing.....	9	1,258	-1	63,216	-3	+4
Cigars and tobacco.....	7	341	+8.9	13,962	+13.3	+11.4
Total.....	43	5,651	-7	285,710	-1.1	-1
<b>Building materials:</b>						
Brick, tile, and terra-cotta products.....	14	2,466	-3.1	114,869	-8	-3.0
Cement.....	7	4,019	+3	243,633	+3.2	+5.8
Glass.....	12	4,236	+1.2	198,420	+18.4	+18.0
Total.....	33	10,721	-1	556,922	+7.2	+8.3
<b>Construction and contracting:</b>						
Buildings.....	15	766	+1.2	31,274	-3.6	+4.1
Street and highway.....	4	2,062	+8.0	105,575	+7.5	+7.8
General.....	9	2,560	-1.0	124,636	+2.1	-8
Total.....	28	5,388	+2.6	261,485	+3.5	+3.2
<b>Chemicals and allied products:</b>						
Chemicals and drugs.....	10	825	+3.4	46,818	+3.4	+3.9
Paints and varnishes.....	5	259	-1.1	12,635	-1.4	-1.0
Total.....	15	1,084	+2.3	59,453	+2.3	+2.9
<b>Miscellaneous industries:</b>						
Lumber and planing-mill products.....	19	1,283	+3	61,960	+4.4	+2.6
Furniture.....	15	1,545	+4.2	74,343	+4.2	+7.2
Leather tanning.....	9	2,190	+5.6	110,074	+4.9	+3.2
Leather products.....	5	134	+3.9	6,028	+5	-2.4
Boots and shoes.....	9	1,651	+9.2	78,132	+17.3	+22.5
Paper and pulp products.....	10	2,701	+1.0	141,074	+2.9	+2.5
Printing and publishing.....	23	1,399	+9	62,779	-1	-2.8
Rubber tires and goods.....	3	838	-1.8	42,520	+2.8	+1.9
Total.....	93	11,741	+3.1	576,910	+5.0	+4.0
All industries.....	490	153,267	-1.9	7,167,311	+2.5	+3.2

Wisconsin

THE July, 1927, issue of the Wisconsin Labor Market, issued by the State industrial commission, contains the following data on volume of employment in Wisconsin industries in June, 1927:

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF PAY ROLL IN IDENTICAL ESTABLISHMENTS IN WISCONSIN FROM JUNE, 1926, AND MAY, 1927, TO JUNE, 1927

Industry	Per cent of change			
	May, 1927, to June, 1927		June, 1926, to June, 1927	
	Employment	Pay roll	Employment	Pay roll
<i>Manual</i>				
Agriculture.....			+16.9	+33.3
Logging.....	-26.1		-9.7	-8.4
Mining.....	+5.6	+6.5	+18.4	+10.3
Lead and zinc.....	+7.2	+8.5	+24.3	+17.0
Iron.....	+2.0	+2.1	+6.1	-2.5
Stone crushing and quarrying.....	+2.1	+3.4	+20.4	+19.7
Manufacturing.....	+7	+2.8	-4.4	-4.7
Stone and allied industries.....	+26.0	+13.4	+10.6	+5.4
Brick, tile, and cement blocks.....	+12.5	+37.5	-3	-1.7
Stone finishing.....	+36.1	+4.7	+18.7	-9.1
Metal.....	-1.7	+1.6	-10.6	-13.2
Pig iron and rolling mill products.....	-23.4	-21.7	-42.3	-46.7
Structural-iron work.....	-8.1	-3.9	-9.3	-13.3
Foundries and machine shops.....	-1.1	+2.1	-8	+2.2
Railroad repair shops.....	-1.7	+2.5	-9	+1.8
Stoves.....	-2.4	-3.6	-18.8	-25.5
Aluminum and enamel ware.....	-3.3	+2.8	+2.1	+5.7
Machinery.....	-3.5	+3.6	-16.2	-16.7
Automobiles.....	+2.1	+16.6	-24.9	-34.3
Other metal products.....	+1.5	-9.1	-3.6	-11.1
Wood.....	+1.1	+1.6	-3.7	-2.5
Sawmills and planing mills.....	-3.4	-7.2	-8.0	-11.1
Box factories.....	+3.6	+8.9	-21.8	-19.2
Panel and veneer mills.....	+5	+3.3	-8.9	-6.7
Furniture.....	+3.0	+5.3	+5	+1
Sash, door, and interior finish.....	+5.2	+6.4	+4.8	+10.8
Other wood products.....	-1	+5.2	-5.6	-6.3
Rubber.....	+2	+4.1	+20.2	+27.5
Leather.....	+5	+4.7	-18.1	-19.4
Tanning.....	+1.3	+6	-41.5	-44.3
Boots and shoes.....	-1.6	+5.4	-9.6	-5.9
Other leather products.....	+2.7	-8.7	+5.7	+10.8
Paper.....	+8	+6.8	-3.2	+2.3
Paper and pulp mills.....	+4	+9.3	-6.2	+8
Paper boxes.....	-3.2	-4.3	+2.8	+2.5
Other paper products.....	+6.4	+3.6	+7.9	+10.2
Textiles.....	+5	-5	+1.0	+2.5
Hosiery and other knit goods.....	+9	-2.9	+9	+2.6
Clothing.....	+4.9	+5.3		+9
Other textile products.....	-10.0	-5.9	+3.6	+6.4
Foods.....	+7.2	+9.4	+3.8	+6.1
Meat packing.....	+25.6	+33.1	+38.4	+45.7
Baking and confectionery.....	+2.8	+7	-4	-1.8
Milk products.....	+2.8	+5.7	+18.4	+7.2
Canning and preserving.....	+28.5	+12.5	-29.8	-36.6
Flour mills.....	-5.0	+4.9	-18.6	-21.8
Tobacco manufacturing.....	-3.9	+4	-1.3	+43.3
Other food products.....	+2.2	+4.6	-3.6	-5.6
Light and power.....	+3.9	+3.5	+12.8	+15.1
Printing and publishing.....	-2	-1.5	+6.6	+9.7
Laundering, cleaning, and dyeing.....	-4	+3.4	+1.3	+3
Chemical (including soap, glue, and explosives).....	+3.4	+7.2	-8.2	-4.0
Construction:				
Building.....	+12.5	+13.7	-3.9	+4.2
Highway.....	+30.6	+41.0	-1.5	-9
Railroad.....	+12.4	+11.0	-16.1	-10.7
Marine, dredging, sewer-digging.....	-5.9	+14.2	+22.5	+29.0

PER CENT OF CHANGE IN NUMBER OF EMPLOYEES AND IN TOTAL AMOUNT OF PAY ROLL IN IDENTICAL ESTABLISHMENTS IN WISCONSIN FROM JUNE, 1926, AND MAY, 1927, TO JUNE, 1927—Continued

Industry	Per cent of change			
	May, 1927, to June, 1927		June, 1926, to June, 1927	
	Employment	Pay roll	Employment	Pay roll
<i>Manual—Continued</i>				
Communication:				
Steam railways.....	+4.2	+4.0	-5.0	+1.1
Electric railways.....	-3	+4	+4.8	+6.1
Express, telephone and telegraph.....	+2.3	+3.0	+2.6	+2.4
Wholesale trade.....	+2.5	+8.9	+3	+11.5
Hotels and restaurants.....	+3.1		+2.1	
<i>Nonmanual</i>				
Manufacturing, mines, and quarries.....	-1	-8	+4.9	+6.9
Construction.....	+2.0	+2.7	+6.2	+14.2
Communication.....	+1.4	+3.1	-1.3	+3.5
Wholesale trade.....	+2	+5	-11.4	-3.9
Retail trade—Sale force only.....	-5.7	-1.4	+11.9	+7.8
Miscellaneous professional services.....	+6.0	+1.9	+13.4	+10.8
Hotels and restaurants.....	+4.0		-7.3	

### Unemployment in Italy <sup>1</sup>

ACCORDING to the National Social Insurance Organization (*Cassa Nazionale per le Assicurazioni Sociali*) of Italy, there were 215,316 persons totally unemployed in that country at the close of April, 1927. While this number was below that for any month in the first quarter of this year, it was more than double that for April, 1926.

The distribution of the totally unemployed for February and April, 1927, is shown below:

	February	April
Agriculture, fishing, etc.....	73,461	58,038
Extractive industries.....	3,491	2,748
Industries using agricultural and similar products.....	23,070	21,718
Metal-working trades.....	19,537	17,855
Construction and building trades.....	58,942	39,217
Textile industry.....	47,361	45,090
Chemical trades.....	3,928	3,046
Industries and services for collective needs.....	12,132	12,172
Public works.....	5,359	5,398
Unskilled labor.....	8,121	7,861
Others.....	3,657	2,173
Total.....	259,059	215,316

In addition to the totally unemployed there were 54,730 persons officially reported as partially unemployed in Italy in April, 1927, while for April, 1926, the number of persons so reported was only 6,793.

<sup>1</sup> Excerpt from Commerce and Industries of Italy, Naples, June, 1927, quoted in report from vice consul Ernest Evans, dated July 1, 1927.

# WHOLESALE AND RETAIL PRICES

## 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 on August 15, 1926, and July 15 and August 15, 1927, as well as the percentage changes in the year and in the month. For example, the retail price per 8-ounce package of corn flakes was 10.9 cents on August 15, 1926; 9.8 cents on July 15, 1927; and 9.7 cents on August 15, 1927. These figures show decreases of 11 per cent in the year and 1 per cent in the month.

The cost of the various articles of food combined shows a decrease of 2.1 per cent on August 15, 1927, as compared with August 15, 1926, and a decrease of 0.6 per cent on August 15, 1927, as compared with July 15, 1927.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE AUGUST 15, 1927, COMPARED WITH JULY 15, 1927, AND AUGUST 15, 1926

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (-) Aug. 15, 1927, compared with—	
		Aug. 15, 1926	July 15, 1927	Aug. 15, 1927	Aug. 15, 1926	July 15, 1927
Sirloin steak.....	Pound.....	<i>Cents</i> 41.8	<i>Cents</i> 43.6	<i>Cents</i> 43.7	+5	+0.2
Round steak.....	do.....	36.2	37.9	38.1	+5	+1
Rib roast.....	do.....	30.4	31.7	31.7	+4	0
Chuck roast.....	do.....	22.5	23.9	23.9	+6	0
Plate beef.....	do.....	14.3	15.3	15.3	+7	0
Pork chops.....	do.....	40.5	34.9	37.7	-7	+8
Bacon.....	do.....	52.0	46.6	46.5	-11	-0.2
Ham.....	do.....	60.7	54.6	54.3	-11	-1
Lamb, leg of.....	do.....	39.2	40.3	39.2	0	-3
Hens.....	do.....	37.9	35.6	35.4	-7	-1
Salmon, canned, red.....	do.....	38.2	32.3	32.9	-14	+2
Milk, fresh.....	Quart.....	13.9	14.0	14.1	+1	+1
Milk, evaporated.....	15-16 oz. can.....	11.4	11.5	11.6	+2	+1
Butter.....	Pound.....	50.6	51.5	51.4	+2	-0.2
Oleomargarine (all butter substitutes).....	do.....	30.2	28.0	28.0	-7	0

<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 AUGUST 15, 1927, COMPARED WITH JULY 15, 1927, AND AUGUST 15, 1926.—Continued

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (-) Aug. 15, 1927, compared with—	
		Aug. 15, 1926	July 15, 1927	Aug. 15, 1927	Aug. 15, 1926	July 15, 1927
		<i>Cents</i>	<i>Cents</i>	<i>Cents</i>		
Cheese.....	Pound.....	35.7	36.9	37.0	+4	+0.3
Lard.....	do.....	22.7	18.8	18.9	-17	+1
Vegetable lard substitute.....	do.....	25.9	25.0	25.0	-3	0
Eggs, strictly fresh.....	Dozen.....	44.9	36.9	42.0	-6	+14
Bread.....	Pound.....	9.4	9.3	9.3	-1	0
Flour.....	do.....	6.0	5.5	5.6	-7	+2
Corn meal.....	do.....	5.1	5.2	5.2	+2	0
Rolled oats.....	do.....	9.0	9.0	9.0	0	0
Corn flakes.....	8-oz. pkg.....	10.9	9.8	9.7	-11	-1
Wheat cereal.....	28-oz. pkg.....	25.4	25.4	25.5	+0.4	+0.4
Macaroni.....	Pound.....	20.2	20.0	20.1	-0.4	+1
Rice.....	do.....	11.6	10.7	10.6	-9	-1
Beans, navy.....	do.....	9.2	9.4	9.5	+3	+1
Potatoes.....	do.....	3.6	4.2	3.4	-6	-19
Onions.....	do.....	5.9	7.8	6.4	+8	-18
Cabbage.....	do.....	4.3	5.5	4.4	+2	-20
Beans, baked.....	No. 2 can.....	11.8	11.5	11.5	-3	0
Corn, canned.....	do.....	16.4	15.5	15.6	-5	+1
Peas, canned.....	do.....	17.5	16.7	16.7	-5	0
Tomatoes, canned.....	do.....	11.8	12.0	12.0	+2	0
Sugar.....	Pound.....	7.0	7.4	7.3	+4	-1
Tea.....	do.....	77.1	77.5	77.6	+1	+0.1
Coffee.....	do.....	51.0	47.6	47.4	-7	-0.4
Prunes.....	do.....	17.2	15.7	15.6	-9	-1
Raisins.....	do.....	14.8	14.4	14.3	-3	-1
Bananas.....	Dozen.....	34.5	33.4	33.7	-2	+1
Oranges.....	do.....	50.7	50.2	53.8	+6	+7
Weighted food index.....					-2.1	-0.6

Table 2 shows for the United States average retail prices of specified food articles on August 15, 1913, and on August 15 of each year from 1921 to 1927, together with percentage changes in August of each of these specified years, compared with August, 1913. For example, the retail price per pound of sugar was 5.6 cents in August, 1913; 7.5 cents in August, 1921; 8.1 cents in August, 1922; 9.6 cents in August, 1923; 8.2 cents in August, 1924; 7.0 cents in August, 1925, and August, 1926; and 7.3 cents in August, 1927.

As compared with August, 1913, these figures show increases of 34 per cent in August, 1921; 45 per cent in August, 1922; 71 per cent in August, 1923; 46 per cent in August, 1924; 25 per cent in August, 1925, and August, 1926; and 30 per cent in August, 1927.

The cost of the various articles of food combined showed an increase of 51.1 per cent in August, 1927, as compared with August, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE AUGUST 15, OF CERTAIN SPECIFIED YEARS COMPARED WITH AUGUST 15, 1913

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Average retail price on Aug. 15—									Per cent of increase, Aug. 15 of each specified year compared with Aug. 15, 1913							
	Unit	1913	1921	1922	1923	1924	1925	1926	1927	1921	1922	1923	1924	1925	1926	1927	
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.								
Sirloin steak	Pound	26.4	40.0	39.0	41.1	40.7	42.0	41.8	43.7	52	48	56	54	59	58	66	
Round steak	do.	23.2	35.6	34.1	35.5	34.8	36.2	36.2	38.1	53	47	53	50	56	56	64	
Rib roast	do.	20.2	29.1	28.2	29.2	29.1	30.3	30.4	31.7	44	40	45	44	50	50	57	
Chuck roast	do.	16.5	20.8	20.0	20.8	21.0	22.1	22.5	23.9	26	21	26	27	34	36	45	
Plate beef	do.	12.2	13.5	12.6	12.7	13.1	13.9	14.3	15.3	11	3	4	7	14	17	25	
Pork chops	do.	21.9	33.0	35.1	32.1	34.8	40.0	40.5	37.7	74	60	47	59	83	85	72	
Bacon	do.	28.3	43.7	40.6	39.2	38.3	49.3	52.0	46.5	54	43	39	35	74	84	64	
Ham	do.	28.4	52.9	50.8	46.3	46.6	54.9	60.7	54.3	86	79	63	64	93	114	91	
Lamb, leg of	do.	18.9	34.2	36.0	37.2	37.3	38.7	39.2	39.2	81	90	97	97	105	107	107	
Hens	do.	21.5	38.9	34.9	34.5	34.8	36.2	37.9	35.4	81	62	60	62	68	76	65	
Salmon, canned, red	do.		36.0	31.9	31.2	31.2	32.3	33.8	32.9								
Milk, fresh	Quart	8.8	14.3	13.0	13.7	13.7	13.9	13.9	14.1	63	48	56	56	58	58	60	
Milk, evaporated	(1)		13.5	10.8	12.2	11.1	11.5	11.4	11.6								
Butter	Pound	35.4	51.2	44.2	51.8	48.3	54.1	50.6	51.4	45	25	46	36	53	43	45	
Oleomargarine (all butter substitutes)	do.		28.7	27.1	28.3	29.6	30.3	30.2	28.0								
Cheese	do.	22.0	32.6	31.8	36.3	34.4	36.8	35.7	37.0	48	45	65	56	67	62	68	
Lard	do.	16.1	18.1	17.2	17.1	19.3	24.3	22.7	18.9	12	7	6	20	51	41	17	
Vegetable lard substitute	do.		21.1	22.9	22.8	25.2	25.9	25.0	25.0								
Eggs, strictly fresh	Dozen	33.0	47.6	37.1	41.5	44.6	48.9	44.9	42.0	44	12	26	35	48	36	27	
Bread	Pound	5.6	9.7	8.7	8.7	8.8	9.4	9.4	9.3	73	55	55	57	68	68	66	
Flour	do.	3.3	5.7	5.1	4.5	5.1	6.1	6.0	5.6	73	55	36	55	85	82	70	
Corn meal	do.	3.0	4.5	3.9	4.1	4.7	5.4	5.1	5.2	50	30	37	57	80	70	73	
Rollad oats	do.		10.0	8.7	8.8	8.8	9.2	9.0	9.0								
Corn flakes	(2)		12.2	9.8	9.7	9.6	10.9	10.9	9.7								
Wheat cereal	(3)		29.8	25.7	24.4	24.3	24.6	25.4	25.5								
Macaroni	Pound		20.7	20.0	19.8	19.6	20.4	20.2	20.1								
Rice	do.	8.7	8.8	9.6	9.4	10.2	11.3	11.6	10.6	1	10	8	17	30	33	22	
Beans, navy	do.		7.9	11.3	11.0	9.7	10.3	9.2	9.5								
Potatoes	do.	1.9	4.2	2.6	3.7	2.6	4.4	3.6	3.4	121	37	95	37	132	89	79	
Onions	do.		5.3	5.9	6.5	6.5	8.0	5.9	6.4								
Cabbage	do.		6.1	3.9	4.8	4.3	5.5	4.3	4.4								
Beans, baked	(4)		14.2	13.4	12.9	12.6	12.4	11.8	11.5								
Corn, canned	(4)		16.0	15.4	15.4	15.9	18.4	16.4	15.6								
Peas, canned	(4)		17.6	17.6	17.6	18.2	18.4	17.5	16.7								
Tomatoes, canned	(4)		12.0	13.6	13.0	13.3	13.7	11.8	12.0								
Sugar, granulated	Pound	5.6	7.5	8.1	9.6	8.2	7.0	7.0	7.3	34	45	71	46	25	25	30	
Tea	do.	54.4	69.2	68.3	69.7	70.9	75.9	77.1	77.6	27	26	28	30	40	42	43	
Coffee	do.	29.8	35.6	36.2	37.6	43.4	50.9	51.0	47.4	19	21	26	46	71	71	59	
Prunes	do.		18.8	20.8	19.0	17.3	17.3	17.2	15.6								
Raisins	do.		30.2	23.2	17.4	15.4	14.4	14.8	14.3								
Bananas	Dozen		38.6	34.2	38.4	35.4	34.4	34.5	33.7								
Oranges	do.		53.5	64.8	50.9	46.1	59.8	50.7	53.8								
Weighted food index <sup>5</sup>										53.3	37.5	45.1	42.9	59.0	54.3	51.1	

<sup>1</sup> 15-16 ounce can.

<sup>2</sup> 8-ounce package.

<sup>3</sup> 28-ounce package.

<sup>4</sup> No. 2 can.

<sup>5</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, chuck roast, rib 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 prices have 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 1926, and in July and August, 1927.

TABLE 3.—AVERAGE RETAIL PRICES OF SPECIFIED ARTICLES OF FOOD AND AMOUNT PURCHASABLE FOR \$1 IN EACH YEAR, 1913 TO 1926, AND IN JULY AND AUGUST, 1927

Year	Sirloin steak		Round steak		Rib roast		Chuck roast		Plate beef		Pork chops	
	Average retail price	Amt. for \$1	Average retail price	Amt. for \$1	Average retail price	Amt. for \$1	Average retail price	Amt. for \$1	Average retail price	Amt. for \$1	Average retail price	Amt. for \$1
	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>
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.....	41.3	2.4	35.6	2.8	30.3	3.3	22.5	4.4	14.6	6.8	39.5	2.5
1927:												
July.....	43.6	2.3	37.9	2.6	31.7	3.2	23.9	4.2	15.3	6.5	34.9	2.9
August.....	43.7	2.3	38.1	2.6	31.7	3.2	23.9	4.2	15.3	6.5	37.7	2.7
	Bacon		Ham		Hens		Milk		Butter		Cheese	
	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per qt.</i>	<i>Qts.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>
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.....	50.3	2.0	57.4	1.7	38.8	2.6	14.0	7.1	53.1	1.9	36.6	2.7
1927:												
July.....	46.6	2.1	54.6	1.8	35.6	2.8	14.0	7.1	51.5	1.9	36.9	2.7
August.....	46.5	2.2	54.3	1.8	35.4	2.8	14.1	7.1	51.4	1.9	37.0	2.7
	Lard		Eggs		Bread		Flour		Corn meal		Rice	
	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per doz.</i>	<i>Dozs.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>
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.....	21.9	4.6	48.5	2.1	9.4	10.6	6.0	16.7	5.1	19.6	11.6	8.6
1927:												
July.....	18.8	5.3	36.9	2.7	9.3	10.8	5.5	18.2	5.2	19.2	10.7	9.3
August.....	18.9	5.3	42.0	2.4	9.3	10.8	5.6	17.9	5.2	19.2	10.6	9.4
	Potatoes		Sugar		Tea		Coffee					
	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>	<i>Cents per lb.</i>	<i>Lbs.</i>				
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.....	4.9	20.4	6.9	14.5	76.7	1.3	51.0	2.0				
1927:												
July.....	4.2	23.8	7.4	13.5	77.5	1.3	47.6	2.1				
August.....	3.4	29.4	7.3	13.7	77.6	1.3	47.4	2.1				



## 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 1913 to 1926,<sup>2</sup> and by months for 1926, and for January through August, 1927. 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 sirloin steak for the year 1926 was 162.6, which means that the average money price for the year 1926 was 62.6 per cent higher than the average money price for the year 1913. As compared with the relative price, 159.8 in 1925, the figures for 1926 show an increase of nearly 3 points, but an increase of 1.75 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 153.4 for July and 152.4 for August, 1927.

The curve shown in the chart on page 171 pictures more readily to the eye the changes in the cost of the food budget than do the index numbers given in the table.

<sup>2</sup> For index numbers of each month, January, 1913, to December, 1925, see Bulletin No. 396, pp. 44 to 61, and Bulletin No. 418, pp. 38 to 51.

TABLE 4.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD, BY YEARS, 1913 AND 1920 TO 1926, AND BY MONTHS FOR 1926, AND JANUARY THROUGH AUGUST, 1927

[Average for year 1913=100.0]

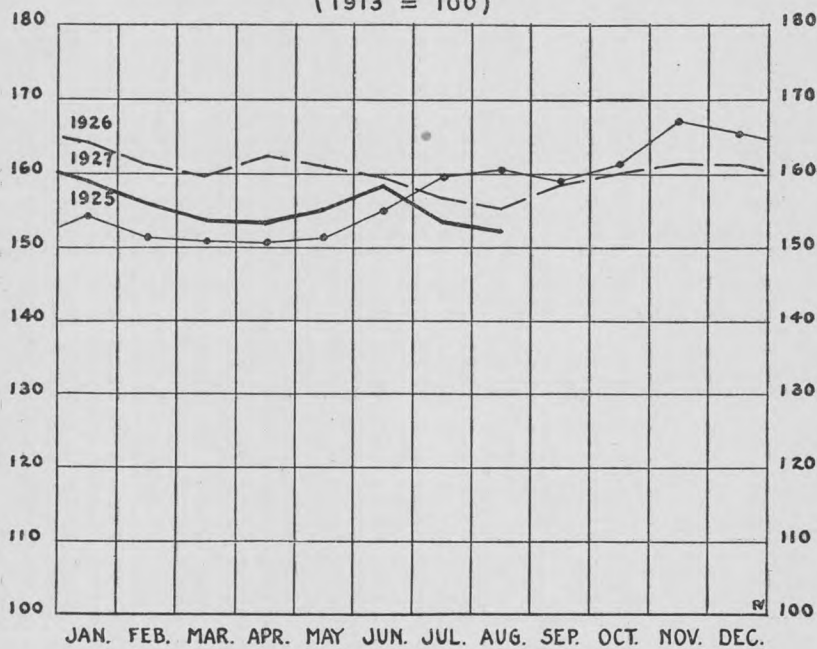
Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Hens	Milk	Butter	Cheese
1913.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920.....	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	209.9	187.6	183.0	188.2
1921.....	152.8	154.3	147.0	132.5	118.2	166.2	158.2	181.4	186.4	164.0	135.0	153.9
1922.....	147.2	144.8	139.4	123.1	105.8	157.1	147.4	181.4	169.0	147.2	125.1	148.9
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
1924.....	155.9	151.6	145.5	130.0	109.1	146.7	139.6	168.4	165.7	155.1	135.0	159.7
1925.....	159.8	155.6	149.5	135.0	114.1	174.3	173.0	195.5	171.8	157.3	143.1	166.1
1926.....	162.6	159.6	153.0	140.6	120.7	188.1	186.3	213.4	182.2	157.3	138.6	165.6
1926: January.....	160.6	157.0	151.5	138.1	119.8	173.8	178.5	198.1	181.2	159.6	144.6	170.1
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
March.....	160.2	156.5	151.0	138.1	120.7	177.1	179.3	200.7	185.0	157.3	139.9	168.3
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
May.....	163.4	160.5	153.5	140.6	121.5	191.9	182.6	207.8	192.5	156.2	130.5	162.9
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
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
August.....	164.6	162.3	153.5	140.6	119.8	192.9	192.6	225.7	177.9	156.2	132.1	161.5
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
October.....	163.4	161.4	154.5	142.5	120.7	202.9	191.5	222.3	176.5	157.3	141.8	166.1
November.....	161.0	159.2	152.5	141.9	121.5	187.1	188.9	217.1	174.2	158.4	145.4	167.0
December.....	160.2	158.3	152.5	141.9	123.1	177.1	183.7	212.3	174.6	159.6	148.8	169.2
1927: January.....	160.6	158.3	153.0	141.9	124.0	174.3	181.1	211.2	180.8	158.4	152.5	170.1
February.....	161.0	158.7	153.5	141.9	123.1	171.0	179.6	210.8	180.8	158.4	153.5	170.1
March.....	161.8	159.6	153.5	142.5	123.1	174.3	179.3	210.0	181.7	158.4	154.6	168.8
April.....	164.6	163.2	156.1	145.6	125.6	175.7	178.2	210.8	182.6	157.3	152.5	167.9
May.....	166.5	165.5	157.6	146.9	125.6	173.3	176.3	209.3	180.3	156.2	139.4	167.4
June.....	166.9	165.9	157.1	146.9	125.6	165.2	174.4	206.3	170.4	156.2	135.2	167.4
July.....	171.7	170.0	160.1	149.4	126.4	166.2	172.6	203.0	167.1	157.3	134.5	167.0
August.....	172.0	170.9	160.1	149.4	126.4	179.5	172.2	201.9	166.2	158.4	134.2	167.4

Year and month	Lard	Eggs	Bread	Flour	Corn meal	Rice	Potatoes	Sugar	Tea	Coffee	All articles <sup>1</sup>
1913.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920.....	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1921.....	113.9	147.5	176.8	175.8	150.0	109.2	182.4	145.5	128.1	121.8	153.3
1922.....	107.6	128.7	155.4	154.5	130.0	109.2	164.7	132.7	125.2	121.1	141.6
1923.....	112.0	134.8	155.4	142.4	136.7	109.2	170.6	183.6	127.8	126.5	146.2
1924.....	120.3	138.6	157.1	148.5	156.7	116.1	158.8	167.3	131.4	145.3	145.9
1925.....	147.5	151.0	167.9	184.8	180.0	127.6	211.8	130.9	138.8	172.8	157.4
1926.....	138.6	140.6	167.9	181.8	170.0	133.3	288.2	125.5	148.0	171.1	160.6
1926: January.....	141.1	156.2	167.9	187.9	173.3	133.3	341.2	121.8	139.9	172.1	164.3
February.....	140.5	127.0	167.9	190.9	173.3	133.3	335.3	121.8	139.9	172.1	161.5
March.....	138.6	111.6	167.9	187.9	173.3	134.5	329.4	121.8	139.9	172.1	159.9
April.....	136.1	111.9	167.9	184.8	170.0	134.5	394.1	120.0	140.3	171.5	162.4
May.....	136.1	112.8	167.9	184.8	170.0	134.5	352.9	121.8	140.4	171.1	161.1
June.....	143.0	118.0	167.9	184.8	170.0	134.5	294.1	125.5	141.4	171.1	159.7
July.....	144.9	122.0	167.9	181.8	170.0	134.5	241.2	125.5	141.5	171.5	157.0
August.....	143.7	130.1	167.9	181.8	170.0	133.3	211.8	127.3	141.7	171.1	155.7
September.....	141.1	149.3	167.9	175.8	170.0	134.5	229.4	127.3	141.5	171.1	158.5
October.....	138.6	168.7	167.9	172.7	170.0	133.3	223.5	129.1	142.1	170.8	160.0
November.....	133.5	191.3	167.9	172.7	170.0	129.9	235.3	129.1	141.7	170.5	161.6
December.....	129.1	189.0	167.9	169.7	170.0	128.7	235.3	132.7	141.4	170.1	161.8
1927: January.....	126.6	162.0	167.9	169.7	170.0	126.4	235.3	136.4	142.5	168.5	159.3
February.....	124.1	128.1	167.9	169.7	170.0	124.1	223.5	136.4	142.3	167.4	156.0
March.....	122.8	102.6	167.9	166.7	170.0	124.1	217.6	134.5	142.6	165.4	153.8
April.....	120.9	98.3	167.9	166.7	170.0	123.0	217.6	132.7	142.6	163.8	153.6
May.....	120.3	97.4	167.9	166.7	170.0	121.8	264.7	132.7	142.3	161.7	155.4
June.....	119.0	97.1	166.1	166.7	173.3	123.0	352.9	132.7	142.1	160.7	158.5
July.....	119.0	107.0	166.1	166.7	173.3	123.0	247.1	134.5	142.5	159.7	153.4
August.....	119.6	121.7	166.1	169.7	173.3	121.8	200.0	132.7	142.6	159.1	152.4

<sup>1</sup> 30 articles in 1907; 15 articles in 1908-1912; 22 articles in 1913-1920; 43 articles in 1921-1927

TREND OF RETAIL PRICES OF FOOD.  
(1913 = 100)



## Retail Prices of Food in 51

AVERAGE retail food prices are shown in Table 5 for 40 cities  
For 11 other cities prices are shown for the same dates with  
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 arti

Article	Unit	Atlanta, Ga.				Baltimore, Md.				Birmingham, Ala.			
		Aug. 15—		July 15,	Aug. 15,	Aug. 15—		July 15,	Aug. 15,	Aug. 15—		July 15,	Aug. 15,
		1913	1926	1927	1927	1913	1926	1927	1927	1913	1926	1927	1927
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	25.0	40.3	42.4	43.1	24.3	40.2	41.5	41.5	28.1	41.0	42.4	42.2
Round steak	do	21.5	36.6	37.8	38.9	23.0	36.8	37.5	38.5	22.5	35.5	36.7	36.3
Rib roast	do	20.1	31.3	33.0	33.0	19.3	30.5	31.5	31.6	20.6	28.7	29.9	31.1
Chuck roast	do	15.5	23.4	24.6	25.0	16.0	21.9	23.5	23.4	16.8	22.6	23.9	23.8
Plate beef	do	9.4	13.4	15.2	15.2	12.6	14.7	15.5	15.6	10.5	14.2	15.5	15.9
Pork chops	do	23.5	38.8	33.4	35.1	19.3	39.0	33.8	37.7	20.0	39.1	33.7	34.9
Bacon, sliced	do	32.0	48.8	44.9	44.5	26.3	47.0	43.0	42.7	35.0	51.0	47.1	48.0
Ham, sliced	do	31.0	60.8	55.7	56.4	34.5	62.3	57.7	57.7	31.3	59.5	55.0	55.0
Lamb, leg of	do	19.4	38.3	40.9	40.3	18.3	40.1	39.9	38.9	23.3	38.6	42.1	42.2
Hens	do	30.2	35.8	33.7	33.1	21.2	41.0	37.3	37.1	17.0	37.3	33.5	33.2
Salmon, canned, red	do	37.2	33.6	34.0	---	---	36.9	28.9	29.7	---	40.7	33.9	33.9
Milk, fresh	Quart	10.0	18.8	18.0	18.0	8.8	13.0	14.0	14.0	10.3	20.0	16.3	16.3
Milk, evaporated	15-16 oz. can	---	13.5	13.4	13.5	---	11.3	11.3	11.3	---	12.6	12.6	12.6
Butter	Pound	37.1	54.6	54.1	52.9	36.7	54.9	55.5	55.6	39.0	56.1	56.8	55.1
Oleomargarine (all butter substitute)	do	---	31.0	26.8	26.2	---	30.3	28.0	28.1	---	36.5	32.3	32.2
Chesse	do	25.0	33.6	36.2	36.2	22.5	33.9	35.1	35.5	23.0	35.6	36.2	36.5
Lard	do	16.1	22.7	18.8	19.0	15.0	21.5	17.1	17.7	16.5	22.8	19.6	19.3
Vegetable lard substitute	do	---	23.6	21.9	21.9	---	24.4	22.4	22.4	---	22.4	22.2	21.7
Eggs, strictly fresh	Dozen	28.3	41.7	36.7	40.6	27.7	40.0	32.6	36.4	28.3	42.3	35.5	37.5
Bread	Pound	6.0	11.0	10.8	10.8	5.4	9.7	9.9	9.9	5.4	10.3	10.4	10.3
Flour	do	3.5	6.7	6.5	6.5	3.2	5.8	5.3	5.3	3.6	6.9	6.6	6.7
Corn meal	do	2.6	4.1	3.9	3.9	2.5	4.0	4.0	4.1	2.4	4.1	4.2	4.3
Rolled oats	do	---	9.5	9.3	9.3	---	8.3	8.2	8.2	---	9.9	9.9	10.1
Corn flakes	8-oz. pkg	---	11.3	9.8	9.8	---	10.2	9.1	9.1	---	12.0	11.1	11.1
Wheat cereal	28-oz. pkg	---	26.2	26.2	28.8	---	24.3	24.1	24.4	---	26.9	27.6	27.7
Macaroni	Pound	---	21.6	21.7	21.7	---	18.7	19.0	19.0	---	19.1	19.1	18.8
Rice	do	8.6	11.6	10.5	10.3	9.0	10.8	9.7	9.8	8.2	11.7	11.0	10.8
Beans, navy	do	---	10.7	10.4	10.2	---	7.9	8.4	8.2	---	10.4	10.1	10.2
Potatoes	do	2.3	5.0	5.4	4.4	1.7	4.0	3.4	3.0	2.3	5.6	5.5	5.0
Onions	do	---	7.7	8.7	7.7	---	5.3	6.9	5.7	---	8.0	8.9	8.6
Cabbage	do	---	5.5	6.3	5.4	---	4.6	4.2	3.9	---	5.7	6.2	5.9
Beans, baked	No. 2 can	---	11.7	11.1	11.1	---	10.6	10.3	10.4	---	12.2	11.5	11.7
Corn, canned	do	---	17.7	18.2	18.2	---	15.0	14.3	14.4	---	18.2	15.9	16.1
Peas, canned	do	---	18.8	19.7	20.1	---	15.6	14.5	14.5	---	21.4	20.4	19.9
Tomatoes, canned	do	---	11.0	11.5	11.5	---	10.1	10.7	10.6	---	11.0	11.3	11.1
Sugar, granulated	Pound	5.9	7.4	7.8	7.6	5.1	6.5	6.7	6.4	5.7	7.4	7.8	7.8
Tea	do	60.0	104.8	103.8	103.8	56.0	75.1	73.4	73.1	61.3	96.6	95.6	96.3
Coffee	do	32.0	51.1	49.6	49.6	24.8	47.7	43.1	42.7	28.8	54.2	51.8	51.6
Prunes	do	---	18.7	17.8	17.8	---	14.4	13.3	13.2	---	20.4	19.1	19.5
Raisins	do	---	18.4	16.3	16.3	---	13.4	13.0	13.2	---	15.2	14.9	14.7
Bananas	Dozen	---	26.4	29.5	27.5	---	25.8	24.5	26.4	---	37.1	38.1	37.3
Oranges	do	---	48.1	49.8	51.6	---	49.1	50.8	55.6	---	50.7	49.9	50.9

<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 August 15, 1913 and 1926, and for July 15 and August 15, 1927. the exception of August, 1913, as these cities were not scheduled by

ARTICLES OF FOOD IN 81 CITIES ON SPECIFIED DATES

cles, particularly meats and vegetables, owing to differences in trade practices]

Boston, Mass.			Bridgeport, Conn.				Buffalo, N. Y.				Butte, Mont.				Charleston, S. C.			
Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15, 1926	July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15, 1926	July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	
1913	1926						1913	1926						1913	1926	1927	1927	
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	
35.8	65.4	70.2	68.8	48.3	53.5	53.9	23.8	42.4	43.5	44.1	32.3	35.0	32.9	21.8	33.5	33.0	33.4	
36.2	51.1	55.3	55.7	41.9	46.0	46.4	20.5	35.5	37.0	37.5	28.8	31.4	30.6	20.0	30.5	30.7	30.7	
25.6	39.0	39.7	39.9	36.4	40.4	40.3	17.0	30.8	31.5	32.0	27.6	28.8	29.0	20.0	27.7	27.0	27.0	
33.8	66.2	59.6	59.1	68.3	58.2	57.5	28.0	59.7	53.1	53.0	64.2	59.2	60.0	15.8	20.7	20.2	20.9	
-----	18.7	20.3	19.9	11.7	12.9	12.7	11.5	13.4	14.0	14.2	12.8	14.4	12.9	11.9	14.1	14.6	15.0	
24.2	44.0	35.7	40.9	44.6	38.2	41.4	22.0	43.3	36.8	42.3	42.7	35.2	35.5	22.5	39.2	34.3	34.7	
25.8	49.7	44.7	44.6	55.1	50.8	51.0	24.5	48.4	41.8	42.2	60.0	55.0	55.4	27.5	47.1	40.4	39.3	
-----	33.8	66.2	59.6	59.1	68.3	58.2	57.5	28.0	59.7	53.1	53.0	64.2	59.2	60.0	28.3	57.5	50.8	50.3
23.0	40.7	42.1	40.3	40.4	43.6	40.8	15.5	35.5	36.0	34.8	39.0	39.5	38.9	21.3	42.9	40.6	40.0	
25.6	41.4	38.3	38.8	40.4	38.1	39.6	21.8	38.5	36.7	36.5	35.5	34.7	32.9	22.2	40.1	36.7	35.1	
-----	37.4	31.6	32.7	36.2	31.5	31.5	-----	37.6	30.5	31.3	32.5	31.1	31.9	-----	38.8	29.0	30.2	
8.9	14.9	14.3	14.8	16.0	16.0	16.0	8.0	13.0	13.0	13.0	14.3	14.0	14.0	11.7	18.0	19.0	19.0	
-----	12.2	12.0	12.2	11.6	11.5	11.5	-----	11.3	11.3	11.3	11.2	11.2	11.2	-----	12.0	11.8	11.8	
35.9	51.5	56.3	52.2	50.3	52.8	52.6	32.9	50.0	51.4	51.2	48.3	49.1	49.2	34.2	49.3	50.0	49.8	
-----	29.5	28.3	28.3	29.6	27.4	27.4	-----	28.0	28.1	28.0	-----	-----	-----	-----	31.0	30.6	29.8	
22.4	36.9	38.6	38.6	39.7	40.5	41.0	20.0	36.7	38.8	38.0	35.5	36.5	36.5	20.5	31.6	33.0	33.6	
15.7	22.6	18.9	19.1	22.4	18.1	18.4	14.5	21.7	17.6	17.7	25.4	23.8	23.2	15.3	24.1	20.6	20.6	
-----	25.2	25.1	25.2	25.9	25.3	25.2	-----	25.9	25.9	25.7	29.3	29.7	29.7	-----	25.3	21.7	21.7	
42.4	64.2	54.0	62.4	61.4	49.9	56.7	29.8	44.4	36.3	43.1	53.6	42.8	46.8	30.0	46.3	35.7	40.0	
5.9	9.1	8.5	8.5	8.8	8.8	8.8	5.6	8.9	8.7	8.7	9.8	9.8	9.8	6.0	10.2	10.9	10.9	
3.8	6.4	6.2	6.1	6.2	5.8	5.7	3.0	5.7	5.1	5.1	5.8	5.5	5.5	3.7	7.2	6.9	6.9	
3.5	6.5	6.6	6.7	8.0	7.7	7.7	2.6	5.4	5.1	5.1	5.9	5.8	6.0	2.4	4.1	3.9	4.0	
-----	9.3	9.2	9.1	8.6	8.5	8.5	-----	8.6	8.7	8.7	7.2	7.5	7.5	-----	9.5	9.5	9.5	
-----	10.8	10.1	10.0	10.5	9.7	9.7	-----	10.2	9.5	9.5	12.2	10.9	10.4	-----	12.0	10.2	10.2	
-----	24.5	25.2	25.2	24.6	24.8	24.8	-----	24.6	24.7	24.6	28.4	28.5	28.5	-----	26.4	25.8	25.8	
-----	22.3	22.5	22.7	22.7	22.7	22.7	-----	21.6	21.1	21.1	19.4	19.5	19.5	-----	18.7	18.6	18.4	
9.2	12.0	12.0	11.9	11.5	11.5	11.5	9.3	11.5	10.3	10.2	12.3	11.1	11.2	5.5	9.8	7.3	7.2	
-----	9.8	10.1	10.4	9.5	9.6	9.6	-----	8.9	8.8	8.9	10.4	10.1	10.1	-----	9.8	9.7	9.6	
1.9	3.6	3.7	3.0	3.4	3.5	3.0	2.0	3.7	3.4	2.7	2.9	4.6	2.9	2.3	3.8	4.3	3.6	
-----	7.1	7.2	5.9	6.8	6.6	6.7	-----	6.8	8.7	7.0	4.8	5.8	6.1	-----	5.6	7.8	7.3	
-----	5.4	5.9	5.2	4.2	6.1	5.2	-----	4.4	5.5	4.4	5.4	8.0	5.1	-----	4.9	6.9	5.2	
-----	13.1	13.3	13.4	11.3	11.5	11.5	-----	9.8	9.9	10.0	14.5	13.9	14.0	-----	9.8	9.8	10.0	
-----	18.7	18.0	17.9	19.8	18.1	18.1	-----	16.1	15.5	15.4	16.0	15.0	15.5	-----	15.0	14.3	14.4	
-----	20.5	20.4	20.2	21.4	21.0	20.8	-----	16.4	16.0	15.9	14.6	13.9	14.1	-----	17.8	16.3	16.5	
-----	11.9	12.1	11.6	13.3	13.8	13.4	-----	13.7	13.1	13.3	13.8	12.9	13.3	-----	9.8	10.2	10.2	
5.6	6.8	7.4	7.2	6.6	7.1	7.1	5.5	6.7	7.1	6.9	8.3	8.7	8.7	5.1	6.6	7.0	6.7	
58.6	74.0	74.4	74.9	60.3	60.9	60.9	45.0	71.7	66.6	67.6	83.3	82.3	82.2	50.0	74.4	82.4	82.4	
33.0	54.9	52.2	52.0	48.6	46.0	45.9	29.3	49.0	45.9	45.4	57.0	54.5	53.8	26.3	46.1	43.9	44.0	
-----	17.1	15.4	15.5	16.2	16.0	16.0	-----	16.2	14.2	14.2	17.6	15.3	15.4	-----	15.2	14.3	13.6	
-----	13.6	13.3	13.4	14.5	14.2	14.3	-----	14.4	13.6	13.5	15.9	15.0	15.0	-----	14.4	14.6	14.6	
-----	45.0	42.2	41.5	34.5	34.5	35.0	-----	41.4	40.8	40.9	214.8	13.5	13.1	-----	37.9	26.3	25.0	
-----	66.0	64.7	61.2	67.9	69.7	63.1	-----	63.4	55.7	56.9	46.3	45.0	53.9	-----	45.6	40.0	42.9	

<sup>1</sup> Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTI

Article	Unit	Chicago, Ill.				Cincinnati, Ohio				Cleveland, Ohio			
		Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927
		1913	1926			1913	1926			1913	1926		
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	24.1	44.5	46.0	46.9	24.1	39.2	39.1	39.6	25.4	39.7	42.7	43.1
Round steak	do	21.2	36.0	37.3	38.0	22.1	35.9	35.7	35.6	22.9	33.7	36.8	36.7
Rib roast	do	20.2	34.8	35.0	35.9	19.3	30.8	31.6	31.1	18.7	27.8	30.0	30.1
Chuck roast	do	15.7	24.6	25.5	25.7	15.2	21.6	23.1	22.6	16.9	22.7	24.8	24.7
Plate beef	do	11.4	14.4	15.2	15.0	11.0	15.3	15.6	15.8	12.0	12.7	14.1	14.2
Pork chops	do	20.9	38.0	32.4	36.8	21.7	37.9	32.7	37.4	22.1	41.1	35.4	39.5
Bacon, sliced	do	32.0	55.1	49.9	50.1	26.3	46.3	4.3	40.9	30.3	52.0	46.2	45.8
Ham, sliced	do	32.2	57.6	54.0	54.4	30.2	60.3	53.3	54.4	37.3	63.7	54.3	53.8
Lamb, leg of	do	19.9	41.0	39.3	39.1	16.5	37.7	37.3	36.1	19.6	37.4	39.9	38.5
Hens	do	19.7	37.8	35.6	36.2	23.4	35.2	37.9	35.5	21.5	39.2	36.5	36.2
Salmon, canned, red	do	39.5	34.9	34.7	34.7	39.6	30.8	31.2	31.2	39.1	31.1	33.1	33.6
Milk, fresh	Quart	8.0	14.0	14.0	14.0	8.0	14.0	13.3	13.3	8.0	13.7	14.0	14.0
Milk, evaporated	15-16 oz. cans.	10.9	11.2	11.3	11.3	10.9	11.3	11.3	11.3	11.1	11.4	11.4	11.4
Butter	Pound	32.7	47.8	50.1	50.3	35.5	49.1	40.8	49.5	35.7	52.4	53.5	53.9
Oleomargarine (all butter substitutes)	do	27.1	26.9	27.0	27.0	30.3	30.3	27.9	27.7	32.5	29.2	29.2	29.2
Cheese	do	25.0	40.7	41.5	42.0	21.0	35.5	36.2	36.4	23.0	35.9	38.4	38.7
Lard	do	15.1	22.0	19.0	19.1	14.3	21.1	17.0	17.1	16.6	23.7	20.2	20.3
Vegetable lard substitute	do	26.1	26.6	26.3	26.3	26.1	25.7	25.9	25.9	27.7	26.6	26.8	26.8
Eggs, strictly fresh	Dozen	27.3	44.2	37.8	42.3	24.9	38.2	34.0	40.3	33.3	47.2	38.4	43.9
Bread	Pound	6.1	9.8	9.9	9.9	4.8	9.2	8.9	8.9	5.6	8.0	7.7	7.7
Flour	do	2.9	5.5	5.3	5.2	3.3	6.1	5.8	5.8	3.2	6.1	5.6	5.7
Corn meal	do	2.8	6.0	6.7	6.6	2.7	3.9	4.2	4.2	2.8	5.4	5.6	5.7
Rolled oats	do	8.3	8.4	8.5	8.5	8.5	8.7	8.8	8.8	9.5	9.4	9.4	9.4
Corn flakes	8-oz. pkg.	10.0	9.6	9.5	9.5	10.4	9.4	9.3	9.3	11.3	9.9	9.7	9.7
Wheat cereal	28-oz. pkg.	24.5	25.0	25.2	25.2	24.6	24.8	24.8	24.8	25.2	25.5	25.7	25.7
Macaroni	Pound	19.2	19.1	19.0	19.0	18.4	18.4	18.4	18.4	21.9	21.8	21.7	21.7
Rice	do	9.0	11.9	11.1	11.2	8.8	11.5	9.8	9.9	8.5	12.0	11.1	11.3
Beans, navy	do	9.2	9.7	9.7	9.7	7.6	8.5	8.6	8.6	7.8	8.6	8.7	8.7
Potatoes	do	2.0	3.4	4.3	3.6	2.2	4.3	4.5	3.7	2.1	3.7	4.0	3.2
Onions	do	5.5	8.0	6.4	6.4	5.2	6.6	5.8	5.8	6.3	8.3	6.3	6.3
Cabbage	do	4.1	5.8	4.2	4.2	3.3	5.5	4.4	4.4	4.2	5.6	4.7	4.7
Beans, baked	No. 2 can.	12.7	12.9	13.0	13.0	11.0	10.5	10.4	10.4	12.8	13.1	12.9	12.9
Corn, canned	do	16.5	15.8	16.0	16.0	15.4	14.6	14.9	14.9	17.1	16.9	16.9	16.9
Peas, canned	do	17.0	16.8	16.8	16.8	17.2	16.8	16.8	16.8	17.6	18.2	18.2	18.2
Tomatoes, canned	do	14.0	13.8	13.9	13.9	11.7	11.8	11.9	11.9	13.4	14.1	14.1	14.1
Sugar, granulated	Pound	5.2	6.7	7.1	7.1	5.4	7.0	7.6	7.5	5.6	7.1	7.5	7.5
Tea	do	55.0	72.2	74.2	73.5	60.0	77.5	75.5	75.5	50.0	81.1	81.6	81.6
Coffee	do	30.7	51.3	48.0	47.9	25.6	46.5	42.9	42.6	26.5	54.3	50.4	50.3
Prunes	do	18.8	17.6	17.3	17.3	18.7	16.3	16.3	16.3	17.3	15.5	15.2	15.2
Raisins	do	15.5	15.1	15.2	15.2	15.0	14.9	14.6	14.6	14.9	14.7	14.7	14.7
Bananas	Dozen	40.8	38.8	39.2	39.2	35.0	36.1	36.1	36.1	10.3 <sup>2</sup>	10.3 <sup>2</sup>	10.3	10.3
Oranges	do	52.4	55.2	57.8	57.8	42.0	45.4	51.4	51.4	52.0	54.7	56.0	56.0

<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.

CLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Columbus, Ohio			Dallas, Tex.				Denver, Colo.				Detroit, Mich.				Fall River, Mass.			
Aug. 15, 1926	July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927
			1913	1926			1913	1926			1913	1926			1913	1926		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
39.8	41.4	41.7	22.8	36.1	38.1	37.7	24.3	35.7	36.6	35.5	26.3	43.0	43.9	44.3	36.0	160.0	166.9	66.3
35.2	36.6	37.1	20.8	32.5	34.6	34.1	22.2	32.4	33.7	32.8	21.0	35.8	36.8	37.9	28.4	46.6	50.2	49.7
30.5	31.8	32.2	20.1	27.8	29.0	28.8	17.8	24.8	26.0	25.6	20.5	31.3	32.7	32.9	23.2	31.8	34.1	34.4
24.5	26.0	26.0	16.7	21.0	23.5	23.7	15.8	20.5	21.3	20.9	15.0	23.3	24.5	25.1	18.4	22.8	25.2	25.1
15.4	16.6	16.6	12.9	17.8	18.3	17.7	9.6	11.5	12.0	12.2	11.3	14.4	14.7	15.1	-----	13.6	13.9	13.9
37.4	33.0	36.2	22.0	36.9	35.8	35.6	20.0	39.1	31.3	34.9	21.5	41.6	35.7	40.3	22.0	39.2	35.4	37.0
54.6	48.3	48.2	38.0	48.2	45.3	46.2	30.5	53.0	46.2	46.2	25.0	54.3	48.2	48.2	25.7	46.2	43.9	43.6
59.6	54.6	54.2	31.3	62.2	57.4	57.1	33.8	61.9	53.4	51.8	28.0	64.2	58.3	58.4	32.5	59.4	54.4	53.9
43.7	47.5	44.4	22.0	42.1	46.4	45.0	16.1	37.3	37.8	37.0	17.3	41.0	41.6	40.7	21.0	42.5	43.8	42.3
39.0	36.0	36.0	17.7	31.1	31.7	30.7	19.4	32.3	30.3	29.4	21.8	40.0	37.2	36.9	25.0	43.3	41.9	42.7
40.5	35.4	36.3	-----	40.7	33.9	35.9	-----	38.3	32.6	33.8	-----	39.3	32.3	33.5	-----	39.7	34.7	34.8
11.0	12.0	12.0	10.0	12.0	13.0	13.0	8.4	12.0	12.0	12.0	7.9	14.0	14.0	14.0	9.0	14.2	14.0	15.0
11.3	11.6	11.5	-----	13.0	13.3	13.1	-----	10.7	10.7	10.7	-----	11.1	11.3	11.4	-----	12.8	12.7	12.7
47.5	50.4	50.6	36.0	50.4	50.3	50.2	34.3	44.5	45.1	43.7	33.7	51.0	52.0	51.9	34.6	50.4	50.9	51.9
29.5	27.5	27.7	-----	33.6	30.7	30.5	-----	29.1	25.0	24.9	-----	28.6	27.4	26.6	-----	30.4	30.5	30.5
35.0	35.7	36.1	20.0	34.7	37.1	36.8	26.1	36.4	36.8	37.1	20.7	36.1	38.5	39.1	22.8	38.5	39.3	40.4
20.5	16.2	16.6	16.8	25.6	22.4	23.4	16.5	23.2	19.2	19.0	16.6	22.5	18.9	18.9	15.3	21.7	18.1	18.1
26.0	26.2	26.5	-----	25.2	23.0	23.7	-----	25.1	22.3	22.6	-----	27.2	27.1	26.7	-----	26.7	26.4	26.4
35.1	30.6	33.6	27.0	39.3	30.6	35.3	30.0	40.2	33.1	37.5	30.0	43.3	36.0	40.9	41.8	62.0	49.8	56.3
8.1	7.8	7.7	5.4	9.6	9.5	9.5	5.4	8.3	7.9	8.0	5.6	8.2	8.5	8.5	6.2	9.3	9.2	9.2
6.0	5.4	5.3	3.2	5.7	5.5	5.5	2.5	4.7	4.4	4.4	3.1	6.0	5.4	5.4	3.4	6.3	5.8	5.8
3.6	3.8	3.7	2.8	4.4	4.5	4.5	2.5	4.1	4.5	4.5	2.8	5.7	6.5	6.0	3.5	6.8	6.8	6.7
9.4	9.4	9.3	-----	10.2	10.9	10.5	-----	8.2	7.6	7.6	-----	9.4	9.6	9.5	-----	9.4	9.4	9.4
10.8	9.9	9.7	-----	10.9	10.5	10.6	-----	11.1	9.6	9.6	-----	10.6	9.9	9.8	-----	11.5	10.2	10.1
24.5	26.4	26.4	-----	27.1	27.9	27.2	-----	25.0	24.6	24.6	-----	25.8	25.5	25.5	-----	25.3	25.0	25.0
21.3	21.0	21.0	-----	20.9	21.8	21.5	-----	20.4	19.9	19.7	-----	21.6	22.3	22.4	-----	24.5	24.2	24.2
13.5	12.1	12.1	9.3	12.7	11.4	11.6	8.6	11.5	10.1	9.9	8.4	12.2	11.9	11.8	10.0	11.8	10.8	11.0
7.6	8.2	8.5	-----	10.1	11.1	11.0	-----	10.2	10.5	10.6	-----	8.2	8.4	8.6	-----	9.8	10.4	10.6
3.8	4.1	3.4	2.7	5.3	5.9	5.6	1.8	2.9	4.6	3.2	1.9	3.5	3.7	2.9	1.9	3.0	3.6	2.8
7.0	8.8	7.2	-----	5.3	8.4	7.9	-----	5.3	7.7	6.1	-----	5.2	7.6	5.9	-----	6.3	8.7	7.0
4.5	5.5	4.6	-----	5.4	7.6	6.4	-----	2.5	3.5	2.2	-----	4.2	4.7	3.3	-----	3.8	5.7	4.7
12.2	12.5	12.6	-----	13.5	12.9	13.2	-----	11.9	11.1	11.0	-----	11.5	11.7	11.5	-----	12.4	12.2	12.1
15.3	13.8	14.1	-----	18.1	18.1	18.6	-----	14.9	13.5	14.0	-----	15.9	16.2	16.2	-----	16.6	16.2	16.5
15.2	14.7	14.7	-----	22.1	21.7	22.1	-----	15.6	14.7	14.8	-----	16.3	17.0	16.9	-----	18.9	18.1	18.1
12.3	13.3	13.3	-----	11.7	13.1	12.6	-----	12.2	11.4	12.0	-----	11.8	12.6	12.5	-----	11.9	13.2	13.2
7.2	7.8	7.8	5.9	7.6	8.2	8.0	5.8	7.5	7.9	7.8	5.4	7.0	7.5	7.5	5.5	6.9	7.3	7.2
89.3	91.1	90.2	66.7	103.2	105.9	107.5	52.8	69.6	68.8	69.2	43.3	73.3	75.5	75.5	44.2	60.3	63.8	63.8
51.5	48.7	48.6	36.7	60.5	57.7	56.7	29.4	51.2	49.2	48.9	29.3	51.5	48.5	48.3	33.0	52.5	48.5	48.7
17.7	17.1	17.0	-----	21.4	21.8	20.7	-----	18.4	16.3	15.7	-----	18.8	18.2	17.1	-----	15.8	14.8	14.8
15.3	13.7	14.6	-----	16.6	16.5	16.5	-----	14.9	14.2	14.0	-----	15.7	15.3	15.0	-----	14.6	13.8	13.8
36.7	38.6	38.6	-----	33.8	36.3	35.0	-----	11.1	10.8	10.9	-----	35.0	34.4	33.9	-----	9.6	9.4	9.6
50.3	50.0	56.2	-----	51.6	48.7	53.2	-----	43.6	44.0	44.6	-----	53.0	55.8	56.9	-----	48.5	56.2	54.0

<sup>2</sup> Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTI

Article	Unit	Houston, Tex.			Indianapolis, Ind.			Jacksonville, Fla.				
		Aug. 15, 1926	July 15, 1927	Aug. 15, 1927	Aug 15—		July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927
					1913	1926			1913	1926		
Sirloin steak	Pound	33.2	35.0	35.0	26.5	39.0	40.6	41.4	26.0	37.7	36.3	35.4
Round steak	do	31.5	33.6	33.2	24.7	37.7	39.1	39.1	22.0	31.3	32.1	31.7
Rib roast	do	25.8	27.5	27.1	18.2	29.4	30.3	30.4	23.3	29.5	27.3	27.1
Chuck roast	do	20.0	22.0	21.6	16.4	24.8	25.0	25.2	14.0	20.8	20.3	19.8
Plate beef	do	17.3	18.0	17.8	12.1	15.4	15.8	15.7	10.3	13.1	13.0	12.5
Pork chops	do	37.1	33.2	33.6	22.7	39.5	32.9	36.1	22.3	40.0	32.1	32.9
Bacon, sliced	do	52.2	45.1	46.5	31.0	49.5	43.0	42.4	30.3	50.0	43.6	42.8
Ham, sliced	do	56.7	52.5	52.1	31.2	62.7	54.6	52.5	28.7	59.4	50.9	51.4
Lamb, leg of	do	36.0	35.7	34.3	20.7	41.7	41.3	42.5	19.3	37.5	39.9	36.2
Hens	do	35.3	31.1	32.9	21.0	39.8	36.3	36.3	22.8	38.6	33.8	32.9
Salmon, canned, red	do	36.7	30.2	30.8	-----	36.3	33.5	33.5	-----	39.6	32.6	33.8
Milk, fresh	Quart	15.6	15.2	15.6	8.0	12.0	12.0	12.0	12.4	22.0	20.3	20.3
Milk, evaporated	15-16 oz. cans	11.5	11.6	11.6	-----	10.8	10.7	10.8	-----	11.9	11.9	11.9
Butter	Pound	49.1	49.5	47.9	34.5	47.4	50.4	50.4	38.6	53.2	52.5	51.8
Oleomargarine (all butter substitutes)	do	29.9	27.8	27.8	-----	30.1	29.1	29.4	-----	31.9	30.9	30.9
Cheese	do	31.8	32.6	33.5	21.0	35.5	37.2	37.2	22.5	34.1	34.5	34.5
Lard	do	23.7	19.6	21.3	15.2	20.6	16.8	16.8	15.5	24.9	21.3	21.1
Vegetable lard substitutes	do	20.6	16.7	16.8	-----	26.7	27.4	27.4	-----	25.4	23.3	22.5
Eggs, strictly fresh	Dozen	37.2	30.0	35.5	24.0	35.7	29.8	33.1	34.0	50.8	38.4	46.1
Bread	Pound	9.0	8.5	8.5	5.1	8.1	8.1	8.1	6.5	11.0	10.9	10.9
Flour	do	5.8	5.2	5.1	3.1	5.8	5.5	5.5	3.8	6.9	6.7	6.6
Corn meal	do	4.1	4.2	4.3	2.6	4.2	4.2	4.2	2.9	4.2	4.2	4.3
Rolled oats	do	8.9	8.8	8.9	-----	8.1	8.3	8.3	-----	9.5	9.5	9.3
Corn flakes	8-oz. pkg.	11.9	9.5	9.5	-----	10.1	9.4	9.4	-----	11.2	9.9	10.0
Wheat cereal	28-oz. pkg.	25.4	25.4	25.0	-----	24.8	25.5	25.1	-----	24.9	24.4	24.8
Macaroni	Pound	18.3	18.4	18.6	-----	19.2	19.7	19.7	-----	20.0	19.4	19.4
Rice	do	10.1	9.0	9.0	9.2	12.2	10.7	10.7	6.6	11.1	9.4	9.6
Beans, navy	do	9.5	9.7	10.1	-----	7.7	8.7	8.7	-----	10.3	9.8	9.6
Potatoes	do	4.9	5.5	5.0	2.2	3.7	4.2	3.3	2.6	5.2	4.8	4.3
Onions	do	5.5	8.2	7.0	-----	5.4	7.9	7.3	-----	7.7	8.6	7.9
Cabbage	do	4.9	5.8	5.4	-----	3.9	6.7	4.6	-----	6.3	7.8	4.9
Beans, baked	No. 2 cans	11.3	11.0	11.0	-----	10.6	10.3	10.3	-----	11.4	10.8	10.7
Corn, canned	do	15.5	14.2	13.9	-----	15.0	13.9	13.9	-----	20.7	17.8	17.8
Peas, canned	do	14.1	13.7	13.7	-----	15.2	13.7	13.7	-----	19.8	17.6	17.8
Tomatoes, canned	do	10.0	10.7	10.6	-----	11.3	13.0	13.0	-----	10.3	10.3	10.1
Sugar, granulated	Pound	7.1	7.1	6.9	5.9	7.3	7.5	7.5	5.9	7.3	7.8	7.6
Tea	do	81.7	84.8	84.7	60.0	86.1	87.9	87.9	60.0	99.8	98.9	98.9
Coffee	do	44.9	41.2	40.9	30.0	51.1	47.6	47.4	34.5	50.2	47.8	47.3
Prunes	do	16.8	15.0	15.4	-----	19.3	18.5	18.5	-----	18.6	16.1	16.8
Raisins	do	14.6	14.5	14.5	-----	15.9	15.4	15.2	-----	16.5	14.7	14.7
Bananas	Dozen	29.5	25.8	26.2	-----	31.8	30.5	30.5	-----	27.0	26.7	31.0
Oranges	do	38.9	41.4	45.6	-----	49.1	47.4	50.8	-----	90.5	46.7	60.0

<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.



CLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Kansas City, Mo.						Little Rock, Ark.						Los Angeles, Calif.						Louisville, Ky.						Manchester, N. H.					
Aug. 15—		July 15, 1927		Aug. 15, 1927		Aug. 15—		July 15, 1927		Aug. 15, 1927		Aug. 15—		July 15, 1927		Aug. 15, 1927		Aug. 15—		July 15, 1927		Aug. 15, 1927							
1913	1926					1913	1926					1913	1926					1913	1926										
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.						
24.4	40.2	38.7	38.7	26.3	33.9	37.8	36.5	24.0	36.8	37.4	37.6	23.2	36.3	37.7	37.5	137.4	157.8	162.6	162.4										
22.3	34.7	34.4	34.7	20.6	31.1	34.1	34.5	21.0	30.2	30.8	30.8	20.0	31.3	34.5	33.3	30.6	45.5	49.0	48.6										
18.0	27.2	27.5	27.5	20.0	27.3	29.4	28.0	19.6	29.2	29.0	29.0	18.3	26.0	27.5	27.5	20.8	28.5	30.6	29.7										
15.3	20.2	20.0	20.1	16.3	21.8	22.3	22.5	15.8	20.1	20.2	20.1	15.6	19.2	21.3	21.3	17.2	23.6	24.7	24.9										
12.3	13.6	13.9	13.9	13.5	16.1	16.9	16.7	12.3	13.9	13.6	13.6	13.1	15.7	17.3	17.7	-----	16.0	17.4	16.9										
20.9	39.3	32.6	35.5	22.5	35.8	31.4	33.6	25.4	46.4	41.9	45.8	20.6	36.3	32.1	35.6	21.4	38.5	32.4	36.9										
31.3	52.6	44.3	44.6	38.0	54.5	47.1	46.9	33.8	62.0	55.0	54.7	29.7	51.9	47.3	46.9	23.6	44.2	38.9	39.0										
30.6	61.7	52.2	51.7	30.6	57.7	51.3	50.8	36.7	71.8	66.7	66.4	30.0	55.0	49.2	50.4	30.0	53.7	46.6	46.3										
18.7	35.7	36.7	36.5	20.0	40.0	40.8	40.8	18.8	37.8	37.2	36.1	17.1	40.6	42.0	41.3	21.0	40.0	40.3	39.1										
16.9	32.8	29.8	30.1	18.3	29.0	27.3	28.3	26.8	44.6	41.1	40.3	22.9	37.0	34.5	33.3	24.4	44.2	42.9	42.5										
-----	39.7	34.9	35.5	-----	40.4	32.1	32.1	-----	36.0	30.9	31.3	-----	39.0	30.5	31.3	-----	38.8	31.6	33.3										
9.1	13.0	13.0	13.0	10.0	15.0	15.0	15.0	10.0	15.0	15.0	15.0	8.8	12.0	12.0	12.0	8.0	14.0	13.8	14.8										
-----	11.7	11.7	11.7	-----	12.1	12.0	12.0	-----	10.0	10.3	10.3	-----	11.9	11.9	12.0	-----	12.8	12.7	12.9										
35.4	48.6	49.5	48.4	39.0	49.1	50.5	50.5	39.5	51.9	50.3	51.6	36.4	50.3	51.0	51.4	37.6	51.6	57.7	57.1										
-----	27.9	25.5	25.5	-----	30.7	27.8	27.5	-----	31.5	26.2	26.2	-----	32.8	27.4	27.4	-----	26.3	25.8	25.8										
21.8	35.0	35.7	35.9	23.3	33.9	36.8	36.8	19.5	38.9	38.2	38.1	21.7	36.4	37.1	37.0	21.0	36.0	36.7	36.6										
16.4	22.9	18.8	19.0	16.3	23.9	21.0	21.5	17.9	24.3	19.2	19.6	16.1	22.1	18.1	18.0	16.2	21.8	18.2	17.8										
-----	27.9	27.4	27.4	-----	24.3	20.0	20.9	-----	26.1	24.3	24.4	-----	29.2	28.7	28.0	-----	25.6	26.1	25.8										
25.3	37.5	31.0	33.7	28.3	40.6	33.4	37.1	39.0	48.1	34.8	41.9	25.0	36.1	28.2	33.8	35.6	55.8	48.2	55.0										
6.0	10.0	9.6	9.6	6.0	9.5	9.2	9.2	6.0	8.6	8.4	8.4	5.7	9.3	9.3	9.2	6.1	8.7	8.7	8.7										
3.0	5.7	5.2	5.2	3.5	6.3	6.1	6.1	3.6	5.5	5.3	5.2	3.4	6.2	6.2	6.0	3.4	6.2	5.9	5.8										
2.7	5.0	5.0	4.9	2.5	4.1	4.0	4.1	3.3	5.3	5.4	5.4	2.3	3.6	4.1	4.2	3.6	5.3	5.3	5.2										
-----	9.2	9.1	9.0	-----	10.6	10.3	10.0	-----	9.8	10.0	10.0	-----	8.3	8.6	8.5	-----	9.0	9.1	9.1										
-----	11.9	10.1	10.1	-----	12.1	10.2	10.2	-----	10.1	9.5	9.4	-----	10.6	9.6	9.5	-----	11.1	9.7	9.5										
-----	26.9	26.3	26.7	-----	25.4	25.9	25.9	-----	25.0	24.9	24.8	-----	24.8	25.2	25.0	-----	25.8	25.8	25.6										
-----	20.3	19.9	19.9	-----	20.4	20.1	20.2	-----	18.2	18.4	18.3	-----	19.1	18.9	18.7	-----	24.0	23.7	23.8										
8.7	11.5	9.9	9.9	8.3	9.9	8.6	8.8	7.7	11.2	10.2	10.2	8.1	11.2	11.5	11.2	8.8	11.0	10.0	10.1										
-----	9.3	9.5	9.6	-----	9.7	9.3	8.5	-----	9.2	10.0	10.0	-----	7.7	8.5	8.3	-----	9.0	9.1	9.2										
1.9	2.4	3.0	2.3	2.0	4.7	4.8	4.9	1.8	3.6	4.1	3.7	1.9	3.2	3.7	2.8	1.9	3.4	3.4	2.8										
-----	5.9	7.7	7.0	-----	6.7	8.2	7.2	-----	5.1	6.9	5.8	-----	5.6	6.6	6.3	-----	6.0	7.5	5.8										
-----	3.1	4.0	4.1	-----	4.9	6.1	5.5	-----	4.3	7.2	5.1	-----	4.7	5.3	5.0	-----	4.6	6.0	3.3										
-----	12.8	12.3	12.3	-----	11.0	10.4	10.5	-----	11.4	11.2	11.0	-----	10.7	10.2	10.2	-----	14.0	13.4	13.2										
-----	14.8	14.0	14.2	-----	16.6	16.6	16.6	-----	16.4	15.8	15.8	-----	16.5	14.6	15.2	-----	17.4	15.9	16.1										
-----	15.2	14.7	14.9	-----	17.8	17.8	17.6	-----	17.5	17.2	16.9	-----	15.7	14.6	14.8	-----	19.3	17.9	17.3										
-----	12.3	11.5	11.4	-----	10.1	10.7	10.7	-----	15.3	14.5	15.0	-----	10.3	10.9	11.1	-----	11.8	13.1	12.7										
5.7	7.3	7.6	7.6	5.8	7.7	7.9	7.9	5.6	6.8	7.0	7.0	5.5	7.2	7.7	7.5	5.6	7.1	7.6	7.3										
54.0	86.1	90.1	89.1	50.0	105.9	107.4	107.4	54.5	75.3	74.7	74.9	62.5	82.6	90.4	90.7	47.0	62.9	63.5	63.5										
27.8	54.1	49.0	48.7	30.8	54.9	50.8	51.3	36.3	53.8	51.2	51.4	27.5	50.0	47.3	47.6	32.0	52.3	47.9	47.7										
-----	18.4	16.4	16.4	-----	19.1	17.6	17.1	-----	16.7	14.5	14.0	-----	18.2	16.3	16.9	-----	15.9	14.2	14.1										
-----	15.1	14.8	14.9	-----	15.5	15.5	15.5	-----	13.4	12.7	12.6	-----	15.9	14.7	14.6	-----	14.3	14.0	14.0										
-----	10.5	10.3	10.1	-----	8.9	8.1	8.0	-----	8.9	8.3	8.6	-----	10.4	8.8	8.5	-----	8.9	8.2	8.2										
-----	47.9	46.5	50.2	-----	49.6	44.6	47.3	-----	46.8	47.7	55.0	-----	46.5	42.3	46.2	-----	53.9	50.9	58.5										

<sup>2</sup> No. 2½ can.

<sup>3</sup> Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTI

Article	Unit	Memphis, Tenn.				Milwaukee, Wis.				Minneapolis, Minn.			
		Aug. 15—		July	Aug.	Aug. 15—		July	Aug.	Aug. 15—		July	Aug.
		1913	1926	15, 1927	15, 1927	1913	1926	15, 1927	15, 1927	1913	1926	15, 1927	15, 1927
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	22.9	36.3	37.3	38.6	22.6	39.2	40.5	41.3	24.2	33.7	35.8	36.6
Round steak	do	19.1	34.0	34.4	35.8	21.2	35.0	36.1	36.8	21.7	21.0	32.2	32.3
Rib roast	do	21.5	26.9	28.0	27.3	18.8	28.5	29.2	29.4	21.0	26.2	29.2	29.2
Chuck roast	do	15.6	19.5	20.3	21.0	16.4	24.3	25.3	25.7	17.0	21.3	23.9	24.2
Plate beef	do	11.9	15.2	16.1	17.2	12.0	14.3	14.8	15.2	10.3	12.6	13.9	13.6
Pork chops	do	20.0	35.7	29.1	32.4	20.2	37.9	33.0	36.7	20.0	36.6	32.2	34.0
Bacon, sliced	do	32.1	44.9	40.3	39.8	28.6	51.5	46.3	46.3	27.7	53.2	47.1	46.3
Ham, sliced	do	30.7	60.4	54.0	53.5	29.0	57.3	49.9	49.0	32.7	60.7	53.5	53.1
Lamb, leg of	do	20.1	40.0	38.7	37.9	20.5	39.2	41.8	39.8	14.4	35.9	36.5	35.9
Hens	do	20.0	31.0	28.4	29.8	19.8	33.8	31.3	31.7	18.5	32.1	31.8	30.7
Salmon, canned, red	do		35.4	33.6	31.6		34.6	32.6	32.8		39.2	35.0	36.0
Milk, fresh	Quart.	10.0	15.0	15.0	15.0	7.0	11.0	11.0	11.0	7.0	11.0	11.0	11.0
Milk, evaporated	15-16oz. cans		11.4	11.6	11.8		11.0	11.2	11.2		11.5	11.7	11.7
Butter	Pound	37.0	49.5	50.9	51.2	32.2	46.9	48.0	48.4	31.4	46.8	46.9	47.3
Oleomargarine (all butter substitutes)	do		26.6	24.5	25.7		27.5	26.4	26.3		28.3	25.0	25.2
Cheese	do	20.8	32.3	33.8	34.3	21.3	33.2	34.9	35.5	20.8	32.8	35.9	35.9
Lard	do	16.5	20.2	16.1	16.5	16.3	22.4	19.0	19.1	15.6	21.3	18.1	18.1
Vegetable lard substitute	do		23.8	20.2	21.8		26.6	26.5	26.7		27.3	27.1	26.6
Eggs, strictly fresh	Dozen	29.3	39.1	32.1	35.5	26.2	37.2	30.2	26.6	25.3	35.8	29.5	33.1
Bread	Pound	6.0	9.7	9.5	9.5	5.6	9.0	9.0	9.0	5.6	9.3	9.0	8.9
Flour	do	3.4	6.6	6.0	6.1	3.1	5.5	5.1	5.1	3.0	5.7	5.2	5.2
Corn meal	do	2.2	3.9	3.9	4.1	3.3	5.5	5.7	5.7	2.4	5.5	5.4	5.4
Rolled oats	do		9.4	9.1	9.0		8.6	8.4	8.3		8.2	8.1	7.9
Corn flakes	8-oz. pkg		11.1	9.8	9.9		10.4	9.4	9.1		10.7	10.4	10.4
Wheat cereal	28-oz. pkg		25.6	26.0	26.0		24.4	24.3	24.7		25.3	25.6	25.6
Macaroni	Pound		19.6	18.9	19.3		17.9	17.9	17.6		19.3	18.9	18.9
Rice	do	7.5	10.7	8.3	8.8	9.0	11.9	10.7	10.5	9.1	11.8	10.5	10.5
Beans, navy	do		9.5	9.1	8.9		8.2	8.3	8.5		9.1	9.3	9.5
Potatoes	do	2.1	4.4	5.0	4.9	1.5	3.0	3.6	3.1	1.0	2.2	4.0	2.2
Onions	do		5.6	6.3	5.8		5.7	8.5	6.4		6.1	9.6	6.6
Cabbage	do		4.3	4.8	4.7		4.7	5.8	3.6		3.8	5.0	2.8
Beans, baked	No. 2 can		12.0	11.3	11.2		11.1	11.0	10.8		12.3	12.2	12.1
Corn, canned	do		16.1	14.6	14.8		15.5	15.2	15.2		15.4	13.5	13.1
Peas, canned	do		17.5	15.3	15.8		16.4	15.1	15.1		15.4	14.1	14.1
Tomatoes, canned	do		10.8	9.8	9.9		13.3	13.3	13.5		13.5	13.4	13.4
Sugar, granulated	Pound	5.7	7.1	7.3	7.1	5.5	6.7	7.1	7.0	5.8	7.2	7.6	7.5
Tea	do	63.8	96.7	98.8	98.6	50.0	70.8	70.6	71.2	45.0	60.6	60.8	60.8
Coffee	do	27.5	51.3	47.3	47.6	27.5	46.9	42.4	42.1	30.8	53.9	50.3	50.5
Prunes	do		17.3	13.8	14.7		17.0	15.4	15.5		17.3	15.6	15.5
Raisins	do		15.2	14.6	14.7		14.9	14.6	14.6		15.1	15.0	14.9
Bananas	Dozen		<sup>2</sup> 8.8	<sup>2</sup> 8.3	<sup>2</sup> 8.5		<sup>2</sup> 9.3	<sup>2</sup> 9.3	<sup>2</sup> 9.3		<sup>2</sup> 10.7	<sup>2</sup> 10.8	<sup>2</sup> 10.7
Oranges	do		50.1	39.1	49.2		48.2	49.0	50.8		48.8	48.7	57.0

<sup>1</sup> Whole.

CLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Mobile, Ala.			Newark, N. J.				New Haven, Conn.				New Orleans, La.				New York, N. Y.			
Aug. 15, 1926	July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927
			1913	1926			1913	1926			1913	1926			1913	1926		
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
34.1	35.0	35.4	29.2	46.4	48.8	48.8	32.8	53.3	58.3	58.3	21.9	3.52	37.0	37.6	26.8	45.8	49.1	49.5
33.6	34.1	34.6	28.4	43.7	46.3	46.4	30.4	43.9	46.3	46.7	18.9	30.6	32.9	33.0	26.1	44.2	46.4	47.1
28.2	29.5	29.2	21.2	35.2	38.1	37.6	24.2	35.8	38.8	38.4	19.4	29.8	31.2	31.4	21.9	38.9	40.8	41.1
22.1	22.7	22.5	18.8	23.9	25.8	25.1	20.0	26.6	28.8	28.5	14.5	20.9	21.8	21.6	16.3	24.2	26.9	26.7
16.6	17.7	17.3	12.0	12.5	14.2	13.2	-----	15.5	16.7	16.7	11.0	16.4	17.7	17.2	14.9	19.7	20.8	21.0
41.4	36.4	36.7	24.2	41.2	36.6	38.5	23.4	40.8	35.1	38.2	23.8	38.5	35.2	37.4	22.2	43.5	39.2	40.5
51.5	47.3	46.1	26.4	49.0	46.0	45.7	29.3	52.7	46.2	45.5	33.1	50.6	47.0	46.2	26.4	52.7	47.4	48.0
57.1	50.7	52.7	22.2	57.5	54.3	53.5	34.0	65.0	58.9	58.0	31.3	54.3	51.1	50.4	30.0	64.7	58.7	58.7
38.3	41.4	41.4	20.0	38.4	41.6	39.0	19.2	41.5	42.3	40.5	21.3	38.7	40.1	39.3	15.8	36.8	40.6	38.3
37.5	34.0	34.2	24.0	37.4	37.1	36.8	24.0	43.1	40.8	40.7	21.7	37.3	34.8	35.1	22.0	39.9	38.2	38.4
41.1	31.3	31.2	-----	36.9	29.4	30.2	-----	34.9	31.0	31.2	-----	40.3	36.9	37.1	-----	36.9	30.6	31.2
17.8	17.8	17.8	9.0	15.0	15.0	15.0	9.0	16.0	16.0	16.0	9.3	14.0	14.0	14.0	9.0	15.0	15.0	15.0
11.7	11.7	11.7	-----	11.2	11.3	11.3	-----	11.9	12.0	12.1	-----	11.1	11.3	11.2	-----	11.1	11.1	11.1
53.8	52.9	52.4	35.8	51.4	53.4	52.6	34.0	50.5	52.0	52.1	34.0	51.1	51.8	52.0	34.3	51.1	52.9	52.6
30.8	28.6	29.3	-----	30.5	29.8	29.1	-----	31.4	29.8	29.8	-----	30.5	28.8	28.7	-----	30.3	27.9	27.6
35.4	35.2	36.1	24.3	39.8	39.9	39.5	22.0	37.7	39.0	39.2	22.0	35.1	36.8	36.9	19.4	38.1	38.6	38.6
22.3	19.1	19.3	16.5	22.6	19.3	19.5	15.8	22.7	18.1	18.5	15.4	22.2	19.2	19.1	16.2	23.1	19.9	19.7
22.0	20.4	20.0	-----	25.7	25.5	25.6	-----	26.5	25.4	25.6	-----	22.4	18.8	18.5	-----	26.3	26.0	25.9
44.9	38.4	40.7	42.2	54.0	44.6	48.8	42.6	62.1	51.9	56.6	30.4	42.3	36.4	40.6	38.6	55.6	47.2	52.6
9.6	10.1	10.1	5.6	9.3	9.5	9.5	6.0	9.2	9.2	9.2	5.1	8.8	8.8	8.7	6.1	9.6	9.7	9.7
6.6	6.1	6.1	3.7	6.2	5.6	5.6	3.3	6.1	5.6	5.6	3.7	7.2	6.7	6.7	3.3	6.1	5.7	5.7
3.9	4.1	4.1	3.6	6.6	6.5	6.5	3.2	7.1	7.1	6.8	2.8	3.9	4.3	4.2	3.4	6.2	6.4	6.5
8.7	8.3	8.4	-----	8.4	8.4	8.4	-----	9.4	9.3	9.3	-----	9.0	9.0	8.9	-----	8.6	8.7	8.7
11.3	9.6	9.5	-----	9.9	9.3	8.8	-----	10.7	10.1	10.1	-----	10.3	9.9	9.8	-----	10.0	9.1	8.8
25.5	24.4	24.4	-----	24.3	24.1	24.1	-----	24.7	24.8	24.8	-----	24.6	24.7	24.5	-----	24.1	24.0	24.0
20.9	20.9	20.6	-----	21.1	20.9	21.5	-----	22.2	22.2	22.2	-----	20.0	10.5	10.7	-----	20.8	20.9	20.9
11.5	19.5	10.0	9.0	11.3	10.5	10.5	9.3	11.9	10.9	10.8	7.4	10.1	9.9	9.9	8.0	10.7	9.6	9.7
8.9	8.8	8.8	-----	9.6	9.7	9.8	-----	9.5	9.5	9.5	-----	8.4	8.4	8.6	-----	10.1	10.0	10.0
5.0	6.0	4.8	2.6	3.3	3.6	3.0	2.1	3.3	3.6	2.8	2.2	4.1	5.0	4.3	2.4	3.4	3.7	3.2
5.7	6.8	6.4	-----	6.6	7.6	6.1	-----	7.0	9.1	6.9	-----	3.9	5.1	4.9	-----	6.2	7.3	6.5
4.7	6.6	5.3	-----	4.3	5.7	5.0	-----	4.9	5.7	4.4	-----	4.9	4.8	4.8	-----	4.6	4.4	4.0
10.8	10.6	10.5	-----	10.6	10.8	10.8	-----	11.6	11.1	11.1	-----	10.9	10.6	10.6	-----	10.9	10.5	10.7
17.5	16.1	15.7	-----	16.6	15.0	15.2	-----	18.8	18.6	18.6	-----	14.8	15.2	14.8	-----	14.6	13.8	13.9
16.9	15.7	15.6	-----	17.4	15.3	15.8	-----	19.3	19.2	18.9	-----	17.7	16.6	17.0	-----	15.2	14.7	14.7
10.3	10.8	10.8	-----	10.9	11.3	11.2	-----	12.5	13.2	13.2	-----	9.9	10.8	10.8	-----	10.3	11.4	11.5
7.1	7.4	7.1	5.3	6.3	6.9	6.9	5.4	6.6	7.2	7.2	5.3	6.3	6.9	6.8	5.0	6.2	6.7	6.6
80.3	77.8	77.8	53.8	63.5	62.8	62.8	55.0	60.1	57.4	57.4	62.1	81.3	79.1	78.8	43.3	64.8	66.3	66.3
50.3	47.4	47.5	29.3	50.2	46.9	45.8	33.8	52.9	49.0	49.3	26.4	36.6	35.6	35.6	27.2	47.2	44.2	44.4
18.1	17.2	16.6	-----	15.8	14.5	14.5	-----	16.8	15.7	15.6	-----	17.9	16.7	17.0	-----	15.5	14.1	13.9
14.3	14.4	14.2	-----	14.6	14.3	14.3	-----	14.0	14.1	14.0	-----	14.3	13.9	13.8	-----	14.8	14.1	13.9
21.5	22.8	23.9	-----	38.1	37.5	37.5	-----	34.4	34.5	35.9	-----	15.8	15.7	16.7	-----	37.7	35.6	37.1
45.9	47.1	49.3	-----	54.5	51.7	57.4	-----	52.9	56.1	61.0	-----	43.1	53.8	49.4	-----	60.6	58.1	64.6

<sup>2</sup> Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTI

Article	Unit	Norfolk, Va.			Omaha, Nebr.				Peoria, Ill.		
		Aug. 15, 1926	July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15, 1926	July 15, 1927	Aug. 15, 1927
					1913	1926					
Sirloin steak	Pound	Cts. 41.0	Cts. 41.8	Cts. 42.2	Cts. 25.4	Cts. 37.9	Cts. 39.5	Cts. 40.1	Cts. 34.8	Cts. 36.5	Cts. 36.1
Round steak	do	35.2	36.8	36.5	22.8	35.4	37.6	37.8	34.1	34.6	34.8
Rib roast	do	32.4	33.4	33.4	19.0	26.3	27.2	27.4	25.2	25.7	25.5
Chuck roast	do	23.3	24.3	23.3	16.2	22.0	22.9	22.9	21.1	21.8	22.6
Plate beef	do	15.2	15.9	16.2	11.8	12.3	13.2	12.8	14.0	14.4	15.0
Pork chops	do	39.1	35.2	36.2	20.4	37.6	33.5	35.7	36.3	31.5	33.2
Bacon, sliced	do	49.7	44.1	44.3	28.6	55.8	50.0	48.9	53.0	50.8	50.8
Ham, sliced	do	53.8	48.0	47.8	30.0	62.4	54.1	53.8	58.2	54.2	54.2
Lamb, leg of	do	41.0	42.1	41.7	18.0	37.9	38.7	37.9	37.9	41.3	42.5
Hens	do	39.5	36.7	35.9	16.4	32.2	30.0	29.6	34.7	33.6	32.9
Salmon canned, red	do	38.4	33.9	33.9	---	38.9	34.5	34.4	39.3	33.5	33.5
Milk, fresh	Quart	17.5	17.5	17.5	8.2	11.3	10.3	10.8	11.7	13.0	13.0
Milk, evaporated	15-16 oz. can	11.1	11.8	11.7	---	11.7	11.8	11.8	11.5	11.4	11.4
Butter	Pound	53.4	54.7	55.3	33.0	46.5	49.4	48.4	46.2	47.3	47.3
Oleomargarine (all butter substitutes)	do	27.8	27.7	26.8	---	29.9	26.1	26.2	29.4	27.9	27.7
Cheese	do	32.2	35.0	35.2	22.9	33.9	36.4	36.3	35.0	36.4	36.2
Lard	do	21.6	18.8	18.8	17.8	24.6	20.5	19.6	23.0	18.7	18.8
Vegetable lard substitute	do	23.3	22.8	23.0	---	27.9	26.0	25.9	27.0	27.8	27.1
Eggs, strictly fresh	Dozen	43.0	34.7	40.5	23.3	35.7	28.7	30.9	35.2	29.2	33.0
Bread	Pound	9.9	9.9	9.9	5.2	10.2	9.8	9.7	10.1	10.0	10.2
Flour	do	6.0	5.6	5.7	2.7	5.0	4.6	4.6	5.9	5.2	5.3
Corn meal	do	4.4	4.6	4.6	2.4	4.9	4.7	4.6	4.8	4.8	4.8
Rolled oats	do	8.3	8.8	8.7	---	10.3	10.1	10.1	9.0	8.9	9.2
Corn flakes	8-oz. pkg	10.3	9.6	9.7	---	12.4	10.5	10.3	11.9	10.2	10.2
Wheat cereal	28-oz. pkg	24.2	25.0	25.0	---	28.0	28.0	27.9	25.4	26.3	26.3
Macaroni	Pound	19.1	19.1	19.1	---	20.9	21.3	21.3	20.5	18.6	18.6
Rice	do	11.8	11.7	11.5	8.5	11.5	11.1	11.1	11.8	11.4	11.5
Beans, navy	do	8.1	8.1	8.2	---	9.8	10.1	10.2	8.5	8.9	8.9
Potatoes	do	3.7	3.8	3.8	1.7	3.0	3.7	2.9	3.1	4.2	3.2
Onions	do	6.9	7.4	7.0	---	6.7	8.9	6.9	6.1	9.6	8.3
Cabbage	do	4.7	5.2	4.9	---	3.9	3.8	3.8	3.5	6.2	4.2
Beans, baked	No. 2 can	10.0	9.8	9.9	---	13.7	13.0	13.0	11.3	11.1	11.1
Corn, canned	do	15.4	14.9	14.7	---	16.0	16.2	16.4	15.6	14.4	14.4
Peas, canned	do	21.2	19.2	19.2	---	16.0	15.3	15.3	18.0	16.7	16.9
Tomatoes, canned	do	10.1	9.9	9.9	---	13.5	13.1	12.9	13.7	12.2	12.6
Sugar, granulated	Pound	6.6	7.1	6.9	6.1	7.3	7.9	7.7	7.5	8.6	8.4
Tea	do	89.1	95.8	95.8	56.0	78.8	78.4	77.8	67.9	70.9	70.8
Coffee	do	50.0	47.8	47.7	30.0	57.5	53.5	53.4	51.9	47.5	47.8
Prunes	do	17.0	15.4	16.0	---	17.4	16.5	16.4	19.6	18.0	17.4
Raisins	do	14.4	14.3	14.3	---	15.7	15.3	15.2	15.5	14.5	14.5
Bananas	Dozen	33.5	33.2	34.5	---	31.5	30.6	30.7	29.8	29.8	29.8
Oranges	do	51.5	55.0	53.8	---	46.3	43.2	44.5	45.9	49.0	48.2

<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.

PRICES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

Philadelphia, Pa.				Pittsburgh, Pa.				Portland, Me.				Portland, Oreg.				Providence, R. I.			
Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15, 1926	July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	
1913	1926			1913	1926						1913	1926			1913	1926			
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
132.3	155.8	160.8	159.8	28.0	47.6	49.0	49.8	162.8	166.1	166.1	23.9	29.6	31.4	31.5	140.2	172.0	174.9	175.3	
27.5	42.9	47.1	46.7	24.8	39.2	41.3	42.0	47.7	49.2	49.3	21.4	26.9	28.7	28.8	31.6	49.9	52.1	52.5	
22.5	36.9	38.8	38.4	22.5	33.9	35.0	35.7	30.9	31.8	32.5	19.9	24.8	25.9	26.3	24.2	38.1	40.5	40.5	
18.4	26.0	28.3	28.2	17.3	24.5	27.0	27.1	21.6	22.5	22.7	16.4	18.3	19.6	19.8	18.8	28.5	31.6	31.4	
12.3	12.7	13.8	13.7	12.3	11.7	13.5	13.8	16.7	18.6	18.7	13.6	12.9	14.1	14.2	---	17.8	18.2	17.9	
22.4	45.8	39.9	43.6	23.5	41.9	38.3	42.0	40.9	34.1	38.8	24.4	42.7	36.0	36.8	21.6	45.8	36.9	42.0	
25.2	50.0	45.5	46.2	30.1	56.0	50.8	51.3	46.6	43.5	43.5	31.5	59.7	53.7	53.6	23.4	46.9	41.9	42.2	
32.6	64.2	59.6	57.9	31.6	67.4	60.7	60.8	63.9	55.5	55.2	31.2	60.6	56.0	56.3	33.3	65.3	57.0	55.6	
20.2	42.0	43.8	41.6	19.7	40.9	43.8	42.0	41.1	43.0	42.3	17.2	35.2	37.2	36.9	18.7	42.6	43.2	41.4	
23.1	41.2	38.9	38.9	26.0	42.3	42.7	42.0	42.4	42.3	41.8	20.7	33.9	32.5	31.7	24.8	42.9	37.8	39.7	
---	37.6	27.5	29.0	---	38.9	30.4	30.3	39.1	30.2	32.1	---	37.1	32.6	32.8	---	38.4	31.9	32.2	
8.0	12.0	13.0	13.2	8.6	14.0	14.0	14.0	13.5	13.8	13.8	9.3	12.0	12.0	12.0	9.0	14.4	14.5	15.5	
---	11.5	11.6	11.7	---	11.5	11.2	11.2	12.3	12.4	12.6	---	10.4	10.9	10.9	---	12.2	12.1	12.1	
39.4	54.2	54.9	55.0	35.6	51.3	52.6	53.6	52.8	54.7	54.7	39.5	51.1	49.7	51.5	36.0	51.4	51.1	51.4	
---	29.3	28.3	28.3	---	37.9	30.1	30.0	29.6	27.5	27.5	---	30.1	28.9	27.3	---	29.3	27.3	27.1	
25.0	39.3	39.4	39.0	24.5	37.9	40.0	39.8	37.8	38.0	38.3	20.8	37.6	37.1	37.2	21.7	36.1	36.8	36.9	
15.6	22.9	17.4	18.0	15.8	22.8	18.6	18.5	21.9	18.4	18.1	18.6	24.6	20.4	20.2	15.7	22.0	18.3	18.4	
---	25.7	25.7	25.4	---	27.5	27.5	27.4	25.2	25.8	26.7	---	28.8	28.9	28.6	---	27.0	26.4	26.5	
34.3	45.8	38.5	42.4	28.9	45.6	38.7	43.3	56.3	46.2	56.9	33.8	41.8	31.5	35.1	38.4	62.9	50.9	69.8	
4.8	9.4	9.4	9.4	5.4	9.3	9.1	9.0	10.1	10.0	10.3	5.6	9.4	9.3	9.3	5.9	9.2	9.1	9.1	
3.2	6.1	5.4	5.2	3.2	5.8	5.3	5.2	5.9	5.5	5.5	2.9	5.2	5.1	5.1	3.5	6.3	6.0	6.0	
2.7	4.8	4.7	4.7	2.8	5.8	5.5	5.8	5.1	5.1	5.0	3.3	5.1	5.7	6.1	2.8	5.1	5.1	5.0	
---	8.6	8.7	8.8	---	9.2	9.1	9.0	8.0	8.1	8.0	---	10.1	10.6	10.4	---	9.2	9.1	9.1	
---	10.0	9.5	9.4	---	10.5	10.1	9.8	11.4	9.9	9.6	---	11.2	9.4	9.5	---	10.9	9.8	9.6	
---	24.4	24.4	24.7	---	25.3	25.1	25.2	25.9	25.6	25.4	---	26.7	26.6	26.7	---	25.3	25.1	24.9	
---	20.9	20.3	20.3	---	23.4	23.5	23.3	25.6	24.4	24.4	---	17.6	18.4	18.3	---	23.5	23.4	23.4	
9.8	12.5	11.4	11.3	9.2	13.0	11.7	11.6	12.9	12.6	12.5	8.6	11.3	10.4	10.3	9.3	12.0	10.7	10.6	
---	8.7	9.1	9.1	---	8.1	8.9	8.9	9.6	9.7	10.0	---	9.9	11.3	11.1	---	9.3	9.8	10.1	
2.1	3.9	4.2	3.3	1.9	3.5	3.8	2.9	3.4	3.6	2.9	1.3	2.6	4.2	2.8	2.0	3.3	3.5	2.8	
---	5.6	6.9	5.5	---	6.9	8.6	6.5	6.0	8.0	5.7	---	3.8	6.5	4.5	---	5.4	8.2	5.2	
---	4.1	4.8	4.1	---	5.2	6.8	4.7	4.6	6.1	3.8	---	4.9	4.7	3.7	---	3.8	5.0	4.8	
---	10.6	10.8	10.8	---	12.9	12.3	12.4	15.0	14.4	14.4	---	13.2	12.0	12.0	---	11.3	11.4	11.2	
---	14.6	14.1	14.3	---	16.8	15.6	15.8	16.2	14.2	13.8	---	19.0	19.3	18.9	---	17.8	16.3	16.8	
---	15.0	14.9	15.0	---	17.2	16.8	16.6	18.6	17.5	17.7	---	18.3	19.1	18.3	---	19.4	18.4	18.4	
---	11.2	12.1	11.7	---	11.6	12.5	12.4	12.1	12.8	12.8	---	16.7	16.9	16.8	---	13.6	13.0	13.1	
5.0	6.6	6.7	6.7	5.7	7.1	7.5	7.3	6.9	7.3	7.3	6.4	7.1	7.3	7.3	5.2	6.7	7.1	7.0	
54.0	74.3	68.2	67.6	58.0	85.3	83.9	83.3	61.6	62.2	62.2	55.0	75.8	77.3	77.1	48.3	61.2	60.9	60.6	
24.5	45.0	39.7	37.2	30.0	50.3	47.2	46.8	54.1	49.6	49.4	35.0	52.8	51.1	51.3	30.0	54.3	48.7	48.9	
---	14.8	13.7	13.6	---	18.0	16.7	16.4	15.6	14.5	14.5	---	14.4	11.6	11.5	---	16.5	14.5	14.8	
---	13.8	13.5	13.6	---	14.6	14.3	14.3	13.7	13.6	13.4	---	13.9	13.7	13.6	---	14.4	14.2	13.8	
---	30.3	28.7	30.0	---	40.6	38.0	38.3	10.8	10.7	11.1	---	11.9	12.5	12.7	---	32.5	30.8	32.5	
---	52.2	50.6	62.3	---	52.4	54.0	60.8	58.7	57.3	66.3	---	45.9	47.0	50.2	---	56.9	58.7	65.5	

<sup>1</sup> No. 2½ can.

<sup>2</sup> Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTI

Article	Unit	Richmond, Va.				Rochester, N. Y.			St. Louis, Mo.			
		Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15, 1926	July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927
		1913	1926						1913	1926		
Sirloin steak	Pound	22.6	39.4	40.4	42.0	42.1	43.0	43.9	25.6	37.6	38.6	39.2
Round steak	do	20.0	35.1	35.8	36.6	35.4	35.5	36.3	24.7	36.4	37.6	38.0
Rib roast	do	19.3	31.9	32.2	32.5	30.5	31.7	32.5	19.0	29.9	30.7	30.8
Chuck roast	do	15.9	23.2	23.9	23.8	24.8	25.2	25.6	15.3	20.8	21.5	22.8
Plate beef	do	12.9	16.3	17.2	17.1	12.8	13.8	13.7	11.5	13.8	14.3	15.0
Pork chops	do	21.2	40.3	35.9	37.8	44.5	38.0	40.9	20.8	36.3	29.1	35.0
Bacon, sliced	do	27.0	48.2	43.2	42.4	46.9	41.2	41.5	28.0	48.2	42.2	42.7
Ham, sliced	do	26.0	48.8	45.6	45.8	60.7	53.7	53.7	28.3	59.0	50.0	51.3
Lamb, leg of	do	19.3	46.3	44.4	43.2	39.1	40.0	38.7	19.0	38.2	38.8	37.7
Hens	do	19.4	37.6	33.0	33.2	42.4	39.7	38.6	17.4	34.6	32.6	31.9
Salmon, canned, red	do	—	36.8	34.5	34.5	37.3	30.5	31.5	—	39.1	33.6	33.7
Milk, fresh	Quart	10.0	14.0	14.0	14.0	12.5	12.5	12.8	8.0	13.0	13.0	13.0
Milk, evaporated	15-16 oz. can	—	12.4	12.6	12.7	11.6	11.4	11.4	—	10.4	11.0	10.9
Butter	Pound	38.6	56.1	57.1	56.0	50.0	52.0	51.6	33.8	51.0	52.3	52.7
Oleomargarine (all butter substitutes)	do	—	31.9	31.4	31.4	30.8	28.8	29.2	—	27.6	26.9	26.8
Cheese	do	21.8	35.7	36.1	36.6	35.0	34.2	36.5	19.2	32.8	35.5	36.0
Lard	do	15.3	22.0	18.2	18.1	21.2	17.6	17.7	14.5	18.9	15.0	15.2
Vegetable lard substitute	do	—	26.2	25.5	25.9	24.9	24.3	24.3	—	26.0	25.8	25.8
Eggs, strictly fresh	Dozen	26.6	40.4	34.0	37.6	42.7	34.0	40.2	23.0	37.8	30.9	36.2
Bread	Pound	5.3	9.5	9.4	9.4	8.9	9.0	9.0	5.5	9.8	9.9	9.9
Flour	do	3.3	6.0	5.5	5.5	5.8	5.5	5.5	3.0	5.5	5.3	5.3
Corn meal	do	2.1	4.6	4.9	4.7	5.6	5.4	5.7	2.2	4.4	4.5	4.6
Rolled oats	do	—	9.0	8.6	8.5	9.2	9.2	9.2	—	8.8	8.4	8.4
Corn flakes	8-oz. pkg	—	11.2	9.6	9.7	10.3	9.5	9.4	—	10.1	8.8	8.8
Wheat cereal	28-oz. pkg	—	25.5	26.0	25.8	25.4	24.5	24.8	—	24.3	24.7	24.8
Macaroni	Pound	—	20.2	20.4	20.4	21.5	19.5	19.5	—	21.1	19.8	19.9
Rice	do	10.0	13.1	11.9	12.0	10.5	10.9	10.4	8.4	10.7	10.2	10.2
Beans, navy	do	—	9.0	9.0	8.5	9.1	8.9	8.9	—	7.7	8.3	8.7
Potatoes	do	1.8	4.2	3.9	3.6	3.6	3.5	2.6	1.9	3.2	4.5	3.5
Onions	do	—	7.5	8.3	7.6	5.9	7.5	6.0	—	5.1	7.1	6.4
Cabbage	do	—	4.3	3.7	3.9	3.4	7.0	3.3	—	3.5	4.9	4.1
Beans, baked	No. 2 can	—	10.1	10.1	10.1	10.5	10.2	10.3	—	10.6	10.1	10.4
Corn meal	do	—	15.5	15.0	14.8	16.1	14.7	15.0	—	15.9	15.2	15.2
Peas, canned	do	—	20.4	19.1	18.9	18.4	16.9	17.2	—	16.7	15.0	15.2
Tomatoes, canned	do	—	10.1	10.6	10.5	13.8	13.1	13.1	—	11.4	11.3	11.3
Sugar, granulated	Pound	5.1	6.9	7.3	7.0	6.4	6.8	6.6	5.4	7.1	7.3	7.2
Tea	do	56.0	91.9	91.4	91.4	67.3	68.3	69.8	55.0	73.9	76.5	76.5
Coffee	do	26.8	49.4	45.6	45.6	47.9	41.4	41.4	24.4	48.1	45.6	45.3
Prunes	do	—	18.5	15.4	15.4	16.4	15.9	15.8	—	18.6	18.0	17.4
Raisins	do	—	14.7	14.2	14.1	14.3	14.6	14.6	—	14.8	14.3	14.4
Bananas	Dozen	—	36.8	36.7	36.7	37.0	35.0	34.0	—	32.3	31.2	31.5
Oranges	do	—	56.8	52.3	53.5	49.0	49.6	54.6	—	48.0	49.2	51.9

1 No 2½ can.

CLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued

St. Paul, Minn.				Salt Lake City, Utah				San Francisco, Calif.				Savannah, Ga.				Scranton, Pa.			
Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15, 1927	July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927	
1913	1926			1913	1926			1913	1926						1913	1926			
Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
26.6	37.1	39.9	40.1	23.1	30.8	33.6	33.2	20.7	31.7	33.2	33.2	35.0	35.8	35.8	26.8	51.0	52.1	52.6	20.7
22.9	32.3	34.7	34.7	20.0	27.3	31.1	30.6	19.3	28.9	30.4	30.1	28.5	29.0	30.0	23.3	42.4	43.8	44.4	19.3
20.6	30.1	32.4	31.6	20.0	23.6	25.9	25.9	21.0	29.2	30.1	30.1	28.1	28.0	27.9	23.8	36.6	37.6	37.8	20.6
17.0	23.3	26.1	25.9	15.4	17.9	20.0	19.6	15.0	18.4	19.2	19.7	19.1	18.8	19.0	18.0	27.5	28.8	28.7	17.0
10.6	13.4	14.6	14.7	12.3	12.4	14.4	14.2	13.3	14.2	14.8	15.1	15.0	15.0	16.3	12.5	11.6	12.6	13.3	10.6
19.7	36.8	30.7	32.7	23.0	39.7	32.7	35.6	23.7	46.8	40.2	42.6	36.5	32.0	32.3	22.3	45.1	39.5	41.3	19.7
27.2	51.8	45.1	44.4	32.0	53.7	47.2	46.9	34.7	65.7	58.2	57.5	47.5	41.0	41.9	28.0	54.3	48.0	48.3	27.2
28.3	57.6	48.9	48.2	30.8	61.0	57.5	57.1	32.0	70.3	64.1	63.3	50.0	45.5	45.0	31.7	65.5	60.6	58.9	28.3
17.9	34.3	35.1	33.6	18.5	34.6	36.7	35.2	16.5	37.8	38.6	37.7	41.0	41.0	41.0	20.0	46.1	47.5	46.4	17.9
19.4	31.6	29.5	29.1	25.0	32.8	29.6	29.6	23.8	45.3	42.4	41.4	34.5	30.0	31.1	23.3	45.5	43.1	43.4	19.4
6.9	38.7	36.0	36.3	8.7	36.4	33.4	34.8	10.0	36.2	29.9	30.6	39.1	33.3	33.5	12.0	37.3	33.4	34.0	6.9
11.8	11.7	12.0	12.0	10.6	10.6	10.6	10.6	10.1	10.5	10.5	11.3	11.4	11.4	11.4	11.8	12.0	12.0	11.9	11.8
32.8	46.6	46.6	46.0	40.0	46.6	46.6	48.2	40.7	53.0	51.4	53.7	53.8	52.7	52.1	35.2	50.7	52.1	51.7	32.8
28.1	24.8	24.8	24.8	30.1	28.9	28.0	28.0	31.5	30.3	27.0	34.8	32.1	32.2	32.2	29.4	28.4	28.4	28.4	28.1
21.0	34.1	35.8	35.8	23.3	29.4	30.7	30.7	19.0	38.0	38.7	38.3	34.5	35.1	35.2	18.0	35.4	35.7	35.4	21.0
15.0	22.1	18.4	18.3	19.3	25.2	21.0	20.5	18.0	25.4	23.0	22.7	22.4	18.4	18.1	16.2	22.6	18.9	18.9	15.0
24.3	27.1	28.1	28.1	32.9	29.8	29.4	29.2	38.2	28.3	28.3	28.2	20.5	16.7	17.0	26.2	26.1	26.0	26.0	24.3
5.9	9.8	10.0	10.0	5.9	9.9	9.7	9.7	5.9	9.8	9.5	9.5	10.5	10.7	10.7	5.6	10.4	10.7	10.7	5.9
3.0	5.8	5.4	5.4	2.6	4.5	4.2	4.2	3.4	5.8	5.8	5.7	6.8	6.6	6.6	3.5	6.4	5.9	5.9	3.0
2.4	5.3	5.2	5.2	3.3	5.5	5.6	5.6	3.4	6.3	6.5	6.5	3.6	3.8	3.7	7.5	7.8	7.8	7.8	2.4
10.0	10.2	10.2	10.2	8.9	8.8	8.8	8.8	9.5	9.8	10.0	8.9	8.6	8.6	8.6	10.0	9.7	9.8	9.8	10.0
11.9	10.8	10.7	10.7	12.3	10.6	10.2	10.2	10.5	10.0	10.0	10.1	9.6	9.6	9.6	10.9	10.1	10.1	10.1	11.9
26.8	26.4	26.4	26.4	25.5	25.5	25.5	25.5	25.5	25.3	25.3	24.5	24.3	24.3	24.3	25.8	25.1	25.1	25.1	26.8
18.7	18.7	18.7	18.7	20.4	20.0	19.9	19.9	15.6	15.6	15.8	18.3	18.2	18.2	18.2	23.4	22.9	23.1	23.1	18.7
10.0	12.0	10.7	10.5	8.2	11.2	9.2	9.6	8.5	12.0	11.3	11.5	10.7	9.9	9.7	8.4	11.7	11.1	11.2	10.0
1.0	9.4	9.6	9.5	1.2	9.8	9.3	9.5	1.7	9.6	10.0	10.3	10.4	9.3	9.4	2.0	3.3	3.7	2.9	1.0
2.6	3.7	2.4	2.4	2.2	3.7	2.4	2.4	3.6	4.7	3.6	4.8	4.6	3.8	3.8	6.6	6.6	6.6	6.7	2.6
6.9	8.5	7.3	7.3	4.9	7.6	5.3	5.3	3.9	5.5	4.3	6.9	8.1	6.9	6.9	6.6	7.6	7.6	6.7	6.9
2.9	3.3	2.6	2.6	3.2	4.1	3.0	3.0	4.8	5.9	5.3	5.3	5.3	5.3	3.8	5.1	3.5	3.5	2.9	
13.7	13.6	13.6	13.6	13.6	13.3	12.9	12.9	13.4	13.0	13.0	12.5	12.1	12.1	12.1	11.0	11.3	11.4	11.4	13.7
15.1	14.3	14.3	14.3	15.3	14.6	14.4	14.4	18.5	17.9	18.2	15.0	15.1	15.2	15.2	17.2	16.6	16.8	16.8	15.1
16.1	15.3	15.3	15.3	16.1	15.7	15.5	15.5	18.5	17.8	17.9	16.4	16.9	16.7	16.7	17.7	17.4	17.2	17.2	16.1
14.4	14.3	14.3	14.3	14.5	13.6	13.9	13.9	15.3	15.0	15.1	9.9	10.1	10.0	10.0	12.0	12.6	12.2	12.2	14.4
5.6	7.5	7.5	7.4	6.1	7.8	8.0	8.1	5.5	6.8	7.0	6.8	7.2	6.9	5.7	6.8	7.2	7.2	7.2	5.6
45.0	69.9	67.4	68.1	65.7	88.3	86.5	86.5	50.0	68.8	71.8	72.4	82.1	81.7	81.7	52.5	66.8	71.2	71.2	45.0
30.0	53.1	50.8	50.8	35.8	56.8	54.9	55.1	32.0	54.0	51.9	52.0	48.9	45.3	45.5	31.3	52.4	49.1	49.1	30.0
17.7	15.7	15.1	15.1	15.1	14.4	14.3	14.3	15.1	13.0	12.7	15.9	14.8	14.9	14.9	17.8	16.0	16.1	16.1	17.7
15.7	15.6	15.4	15.4	14.7	13.5	13.7	13.7	13.1	13.1	13.2	15.1	14.7	14.6	14.6	15.0	14.7	14.7	14.7	15.7
11.6	10.6	10.3	10.3	14.5	12.4	12.8	12.8	30.6	31.9	31.3	31.5	30.4	29.6	29.6	34.0	33.2	32.9	32.9	11.6
50.6	48.9	53.4	53.4	41.4	45.1	48.3	48.3	49.0	50.0	50.3	51.7	46.9	46.9	46.9	53.7	55.5	59.5	59.5	50.6

<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.			
		Aug. 15—		July 15, 1927	Aug. 15, 1927	Aug. 15, 1926	July 15, 1927	Aug. 15, 1927	Aug. 15—		July 15, 1927	Aug. 15, 1927
		1913	1926						1913	1926		
Sirloin steak	Pound	Cts. 24.4	Cts. 33.4	Cts. 34.7	Cts. 34.7	Cts. 36.1	Cts. 37.9	Cts. 37.1	Cts. 27.8	Cts. 46.9	Cts. 49.4	Cts. 50.1
Round steak	do	21.5	29.5	30.8	30.6	35.4	36.9	36.1	24.5	40.5	42.9	43.1
Rib roast	do	20.0	27.0	28.0	27.7	23.9	24.4	24.4	21.6	35.0	35.3	34.8
Chuck roast	do	16.2	19.7	20.3	20.5	22.1	22.8	22.6	17.3	24.3	26.9	26.4
Plate beef	do	12.7	14.5	15.4	15.1	13.3	13.8	14.2	12.1	13.4	13.9	13.9
Pork chops	do	24.2	43.5	38.3	38.6	36.3	30.0	31.4	23.0	44.8	37.4	42.2
Bacon, sliced	do	34.2	62.0	57.5	57.0	50.7	45.8	46.3	28.4	53.1	43.9	43.8
Ham, sliced	do	31.7	65.0	61.1	60.0	59.3	50.8	50.4	31.0	61.5	57.1	57.2
Lamb, leg of	do	19.4	36.5	36.6	36.6	41.0	41.7	41.3	19.4	42.3	42.1	40.7
Hens	do	23.8	34.0	31.9	33.2	35.4	32.5	33.0	21.9	41.8	38.6	37.1
Salmon, canned, red	do	38.2	34.6	35.8	35.8	41.7	34.8	34.4	38.4	31.2	33.1	33.1
Milk, fresh	Quart	8.5	13.0	12.0	12.0	12.5	14.3	14.4	8.0	14.0	15.0	15.0
Milk, evaporated	15-16 oz. can		10.6	10.7	10.6	11.7	11.8	11.7		12.0	12.0	12.1
Butter	Pound	39.0	51.4	51.0	52.6	48.9	49.0	49.6	36.6	53.2	53.8	53.7
Oleomargarine	do		30.8	28.2	27.2	30.2	28.0	27.9		31.5	28.5	28.9
Cheese	do	21.7	35.5	34.7	35.1	35.4	36.6	37.4	23.8	37.7	39.1	39.1
Lard	do	17.4	24.4	20.3	20.7	22.5	18.1	18.0	15.3	23.1	17.5	17.8
Vegetable lard substitute	do		28.1	27.3	27.3	27.7	27.3	27.5		25.8	24.5	24.5
Eggs, strictly fresh	Dozen	39.0	43.3	32.0	37.9	35.4	30.5	33.2	30.0	45.9	38.5	42.2
Eggs, storage	do											
Bread	Pound	5.5	9.6	9.7	9.7	10.1	10.3	10.3	5.7	8.8	9.0	9.1
Flour	do	2.9	5.1	5.2	5.0	6.1	5.7	5.6	3.8	6.7	5.8	5.8
Corn meal	do	3.2	4.9	5.9	5.6	5.0	4.8	4.9	2.5	5.2	5.2	5.2
Rolled oats	do		8.7	8.7	8.6	10.0	9.9	10.1		9.2	9.3	9.3
Corn flakes	8-oz. pkg		11.9	10.3	10.4	11.6	10.2	10.2		10.7	9.5	9.5
Wheat cereal	28-oz. pkg		27.5	27.7	27.5	26.8	27.3	27.3		24.9	24.4	24.4
Macaroni	Pound		18.3	18.2	18.1	19.4	18.9	18.9		23.8	22.1	22.6
Rice	do	7.7	12.7	12.0	12.0	11.3	10.9	10.9	9.8	13.1	11.5	11.5
Beans, navy	do		10.1	11.0	11.1	8.6	9.1	9.1		8.4	8.8	9.0
Potatoes	do	1.6	2.8	4.8	3.1	3.3	4.8	3.6	2.0	3.9	3.8	3.4
Onions	do		4.1	6.9	5.0	5.8	9.3	6.7		6.4	7.3	6.3
Cabbage	do		4.4	6.1	4.9	3.7	5.5	3.4		5.1	4.2	4.4
Beans, baked	No. 2 can		13.3	11.9	11.9	10.9	10.3	10.3		10.6	10.1	9.8
Corn, canned	do		18.8	17.3	17.1	15.6	14.5	14.5		15.8	14.3	14.3
Peas, canned	do		20.0	18.5	18.3	17.1	15.6	15.9		16.9	16.2	15.9
Tomatoes, canned	do		<sup>1</sup> 17.5	<sup>1</sup> 16.9	<sup>1</sup> 17.0	13.8	13.6	13.6		10.3	10.1	10.1
Sugar, granulated	Pound	6.3	7.1	7.4	7.3	7.6	7.9	7.9	5.2	6.8	7.1	6.8
Tea	do	50.0	79.0	75.7	75.9	80.7	84.6	83.8	57.5	91.1	91.4	91.2
Coffee	do	28.0	52.1	49.1	49.0	53.4	49.3	49.7	28.8	48.1	42.8	43.0
Prunes	do		15.7	14.0	13.3	17.8	15.9	16.0		17.9	17.0	16.0
Raisins	do		14.8	14.0	14.0	15.3	15.8	15.3		14.8	14.4	14.6
Bananas	Dozen		<sup>2</sup> 13.2	<sup>2</sup> 12.2	<sup>2</sup> 12.5	<sup>2</sup> 9.8	<sup>2</sup> 10.0	<sup>2</sup> 10.0		35.6	30.9	31.8
Oranges	do		48.0	45.7	50.0	55.3	45.2	49.0		57.9	56.5	56.8

<sup>1</sup> No. 2½ can.<sup>2</sup> Per pound.

## Changes in 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 August, 1927, compared with the average cost in the year 1913, in August, 1926, and in July, 1927. For 12 other cities comparisons are given for the one-year and the one-month periods. These cities have been scheduled by the bureau

<sup>3</sup> For list of articles see note 5, p. 167.



at different dates since 1913. These percentage changes are 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 6.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN AUGUST, 1927, COMPARED WITH THE COST IN JULY, 1927, AUGUST, 1926, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES

City	Percent- age in- crease August, 1927, com- pared with 1913	Percent- age de- crease August, 1927, com- pared with August, 1926	Percent- age de- crease August, 1927, com- pared with July, 1927	City	Percent- age in- crease August, 1927, com- pared with 1913	Percent- age de- crease August, 1927, com- pared with August, 1926	Percent- age de- crease August, 1927, com- pared with July, 1927
Atlanta.....	57.0	3.3	0.9	Minneapolis.....	47.0	2.6	4.2
Baltimore.....	57.3	3.8	1 0.5	Mobile.....	.....	2.8	1.4
Birmingham.....	58.7	4.7	0.6	Newark.....	44.6	1.7	1.0
Boston.....	53.4	3.0	0.3	New Haven.....	52.7	2.3	0.9
Bridgeport.....	.....	1.4	0.0	New Orleans.....	52.1	0.5	0.4
Buffalo.....	54.6	3.7	0.0	New York.....	55.5	1.1	0.0
Butte.....	.....	2.0	3.3	Norfolk.....	.....	1.6	1 0.8
Charleston, S. C.....	54.1	3.7	0.8	Omaha.....	46.0	4.1	1.5
Chicago.....	63.8	0.0	0.5	Peoria.....	.....	1 0.1	1.7
Cincinnati.....	54.5	3.3	0.7	Philadelphia.....	53.9	2.4	1.5
Cleveland.....	51.2	3.1	0.8	Pittsburgh.....	52.9	2.5	1.2
Columbus.....	.....	1.6	1.1	Portland, Me.....	.....	1.0	1 0.7
Dallas.....	52.5	0.0	0.3	Portland, Ore.....	36.8	1.2	1.9
Denver.....	36.0	2.5	2.8	Providence.....	54.8	2.1	1 1.1
Detroit.....	60.2	2.4	0.9	Richmond.....	58.5	3.9	1 0.2
Fall River.....	51.9	0.5	1 0.4	Rochester.....	.....	3.4	0.8
Houston.....	.....	3.1	1 0.1	St. Louis.....	55.7	0.2	0.6
Indianapolis.....	47.8	2.4	1.5	St. Paul.....	.....	2.7	2.6
Jacksonville.....	48.2	7.7	0.1	Salt Lake City.....	31.2	0.7	1.6
Kansas City, Mo.....	44.0	4.3	1.0	San Francisco.....	48.5	2.0	0.5
Little Rock.....	46.3	2.3	1 0.8	Savannah.....	.....	4.4	0.1
Los Angeles.....	40.5	2.4	1 0.6	Scranton.....	56.5	1.5	0.7
Louisville.....	46.6	2.1	0.5	Seattle.....	42.9	1.9	2.3
Manchester.....	52.5	0.8	1 0.3	Springfield, Ill.....	.....	0.1	2.6
Memphis.....	46.6	2.3	1 1.9	Washington, D. C.....	58.7	4.0	1 0.5
Milwaukee.....	54.6	1.4	0.3	.....	.....	.....	.....

<sup>1</sup> Increase.

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 August, 99 per cent of all the firms supplying retail prices in the 51 cities sent in a report promptly. The following-named 39 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, Birmingham, Bridgeport, Buffalo, Butte, Charleston, S. C., Chicago, Cincinnati, Cleveland, Columbus, Dallas, Denver, Detroit, Fall River, Houston, Indianapolis, Jacksonville, Kansas City, Mo., Louisville, Manchester, Memphis, Milwaukee, Minneapolis, Newark, New Haven, New York, Norfolk, Philadelphia, Pittsburgh, Portland, Me., Providence, Rochester, St. Louis, St. Paul, San Francisco, Savannah, Scranton, and Seattle.

<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 August, 1927:

## RETAIL PRICE REPORTS RECEIVED FOR AUGUST, 1927

Item	United States	Geographic division				
		North Atlantic	South Atlantic	North Central	South Central	Western
Percentage of reports received.....	99.0	99.7	99.0	99.1	97.0	98.0
Number of cities in each section from which every report was received.....	39	13	6	11	5	4

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, August 15, 1926, and July 15 and August 15, 1927, 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.

TABLE 1.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, AUGUST 15, 1926, AND JULY 15 AND AUGUST 15, 1927

City, and kind of coal	1913		1926	1927	
	Jan. 15	July 15	Aug. 15	July 15	Aug. 15
<b>United States:</b>					
<b>Pennsylvania anthracite—</b>					
<b>Stove—</b>					
Average price.....	\$7.99	\$7.46	\$15.49	\$15.15	\$15.15
Index (1913=100).....	103.4	96.6	200.4	196.1	196.1
<b>Chestnut—</b>					
Average price.....	\$8.15	\$7.68	\$15.23	\$14.81	\$14.80
Index (1913=100).....	103.0	97.0	192.5	187.1	187.0
<b>Bituminous—</b>					
Average price.....	\$5.48	\$5.39	\$8.81	\$8.91	\$8.99
Index (1913=100).....	100.8	99.2	162.1	163.9	165.4
Atlanta, Ga.:					
Bituminous.....	\$5.88	\$4.83	\$7.65	\$7.38	\$7.58
Baltimore, Md.:					
Pennsylvania anthracite—					
Stove.....	1 7.70	1 7.24	1 16.00	1 15.75	1 15.75
Chestnut.....	1 7.93	1 7.49	1 15.50	1 15.00	1 15.00
Bituminous.....			7.67	8.04	8.18
Birmingham, Ala.:					
Bituminous.....	4.22	4.01	7.31	7.18	7.30
Boston, Mass.:					
Pennsylvania anthracite—					
Stove.....	8.25	7.50	16.25	16.00	16.00
Chestnut.....	8.25	7.75	16.00	15.75	15.75

<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.

TABLE 1.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, AUGUST 15, 1926, AND JULY 15 AND AUGUST 15, 1927—Continued

City, and kind of coal	1913		1926	1927	
	Jan. 15	July 15	Aug. 15	July 15	Aug. 15
Bridgeport, Conn.:					
Pennsylvania anthracite—					
Stove.....			\$15.00	\$14.50	\$14.50
Chestnut.....			15.00	14.50	14.50
Buffalo, N. Y.:					
Pennsylvania anthracite—					
Stove.....	\$6.75	\$6.54	13.75	13.78	13.74
Chestnut.....	6.99	6.80	13.39	13.38	13.34
Butte, Mont.:					
Bituminous.....			11.00	10.94	10.95
Charleston, S. C.:					
Bituminous.....	1 6.75	1 6.75	11.00	11.00	11.00
Chicago, Ill.:					
Pennsylvania anthracite—					
Stove.....	8.00	7.80	16.88	16.70	16.70
Chestnut.....	8.25	8.05	16.63	16.20	16.20
Bituminous.....	4.97	4.65	8.32	9.09	9.16
Cincinnati, Ohio:					
Bituminous.....	3.50	3.38	6.75	7.06	7.10
Cleveland, Ohio:					
Pennsylvania anthracite—					
Stove.....	7.50	7.25	15.20	15.05	15.05
Chestnut.....	7.75	7.50	14.80	14.65	14.70
Bituminous.....	4.14	4.14	8.68	9.02	8.92
Columbus, Ohio:					
Bituminous.....			6.72	6.96	6.85
Dallas, Tex.:					
Arkansas anthracite—					
Egg.....			15.50	14.17	14.33
Bituminous.....	8.25	7.21	12.72	11.71	12.21
Denver, Colo.:					
Colorado anthracite—					
Furnace, 1 and 2 mixed.....	8.88	9.00	16.00	15.90	15.90
Stove, 3 and 5 mixed.....	8.50	8.50	16.50	15.90	15.90
Bituminous.....	5.25	4.88	10.45	9.60	9.78
Detroit, Mich.:					
Pennsylvania anthracite—					
Stove.....	8.00	7.45	16.00	15.50	15.50
Chestnut.....	8.25	7.65	15.50	15.00	15.00
Bituminous.....	5.20	5.20	9.25	9.18	9.21
Fall River, Mass.:					
Pennsylvania anthracite—					
Stove.....	8.25	7.43	16.75	16.50	16.50
Chestnut.....	8.25	7.61	16.25	16.00	16.00
Houston, Tex.:					
Bituminous.....			11.00	11.40	11.60
Indianapolis, Ind.:					
Bituminous.....	3.81	3.70	6.81	7.00	6.96
Jacksonville, Fla.:					
Bituminous.....	7.50	7.00	12.00	12.00	12.00
Kansas City, Mo.:					
Arkansas anthracite—					
Furnace.....			14.20	13.20	13.50
Stove No. 4.....			15.33	15.17	15.00
Bituminous.....	4.39	3.94	7.66	7.65	7.90
Little Rock, Ark.:					
Arkansas anthracite—					
Egg.....			13.00	14.00	13.50
Bituminous.....	6.00	5.33	9.45	9.85	9.96
Los Angeles, Calif.:					
Bituminous.....	13.52	12.50	15.31	14.75	15.55
Louisville, Ky.:					
Bituminous.....	4.20	4.00	6.47	6.58	6.94
Manchester, N. H.:					
Pennsylvania anthracite—					
Stove.....	10.00	8.50	17.00	17.00	17.25
Chestnut.....	10.00	8.50	17.00	16.75	17.00
Memphis, Tenn.:					
Bituminous.....	4.34	4.22	7.26	8.36	8.30
Milwaukee, Wis.:					
Pennsylvania anthracite—					
Stove.....	8.00	7.85	16.80	16.40	16.40
Chestnut.....	8.25	8.10	16.65	15.95	15.95
Bituminous.....	6.25	5.71	8.99	9.42	9.29

1 Per ton of 2,240 pounds.

2 Per 10-barrel lot (1,800 pounds).

TABLE 1.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, AUGUST 15, 1926, AND JULY 15 AND AUGUST 15, 1927—Continued

City, and kind of coal	1913		1926	1927	
	Jan. 15	July 15	Aug. 15	July 15	Aug. 15
Minneapolis, Minn.:					
Pennsylvania anthracite—					
Stove.....	\$9.25	\$9.05	\$18.10	\$17.90	\$17.90
Chestnut.....	9.50	9.30	17.95	17.45	17.45
Bituminous.....	5.89	5.79	11.03	11.16	11.16
Mobile, Ala.:					
Bituminous.....			9.50	9.31	9.46
Newark, N. J.:					
Pennsylvania anthracite—					
Stove.....	6.50	6.25	13.95	13.70	13.75
Chestnut.....	6.75	6.50	13.45	13.20	13.25
New Haven, Conn.:					
Pennsylvania anthracite—					
Stove.....	7.50	6.25	15.15	14.65	14.65
Chestnut.....	7.50	6.25	15.15	14.65	14.65
New Orleans, La.:					
Bituminous.....	2 6.06	2 6.06	9.32	9.39	9.32
New York, N. Y.:					
Pennsylvania anthracite—					
Stove.....	7.07	6.66	14.75	14.08	14.08
Chestnut.....	7.14	6.80	14.50	13.79	13.79
Norfolk, Va.:					
Pennsylvania anthracite—					
Stove.....			15.50	14.50	14.50
Chestnut.....			15.50	14.50	14.50
Bituminous.....			8.52	8.55	8.55
Omaha, Nebr.:					
Bituminous.....	6.63	6.13	9.67	9.68	9.75
Peoria, Ill.:					
Bituminous.....			6.79	6.97	6.96
Philadelphia, Pa.:					
Pennsylvania anthracite—					
Stove.....	1 7.16	1 6.89	1 15.79	1 14.96	1 14.89
Chestnut.....	1 7.38	1 7.14	1 15.54	1 14.46	1 14.39
Pittsburgh, Pa.:					
Pennsylvania anthracite—					
Chestnut.....	1 8.00	1 7.44	15.13	15.00	14.63
Bituminous.....	2 3.16	2 3.18	5.55	5.72	5.53
Portland, Me.:					
Pennsylvania anthracite—					
Stove.....			16.56	16.56	16.56
Chestnut.....			16.56	16.56	16.56
Portland, Oreg.:					
Bituminous.....	9.79	9.66	11.96	12.98	13.33
Providence, R. I.:					
Pennsylvania anthracite—					
Stove.....	4 8.25	4 7.50	4 16.25	4 16.00	4 16.00
Chestnut.....	4 8.25	4 7.75	4 16.00	4 15.75	4 15.75
Richmond, Va.:					
Pennsylvania anthracite—					
Stove.....	8.00	7.25	15.83	15.50	15.50
Chestnut.....	8.00	7.25	15.50	15.50	15.50
Bituminous.....	5.50	4.94	9.09	9.63	9.61
Rochester, N. Y.:					
Pennsylvania anthracite—					
Stove.....			14.60	14.35	14.35
Chestnut.....			14.15	13.90	13.90
St. Louis, Mo.:					
Pennsylvania anthracite—					
Stove.....	8.44	7.74	16.70	16.65	16.70
Chestnut.....	8.68	7.99	16.45	16.25	16.25
Bituminous.....	3.36	3.04	6.17	7.16	7.44
St. Paul, Minn.:					
Pennsylvania anthracite—					
Stove.....	9.20	9.05	18.10	17.85	17.90
Chestnut.....	9.45	9.30	17.95	17.45	17.45
Bituminous.....	6.07	6.04	11.22	11.29	11.40
Salt Lake City, Utah:					
Colorado anthracite—					
Furnace, 1 and 2 mixed.....	11.00	11.50	18.00	18.00	18.00
Stove, 3 and 5 mixed.....	11.00	11.50	18.00	18.00	18.00
Bituminous.....	5.64	5.46	6.49	7.29	7.73

1 Per ton of 2,240 pounds.

2 Per 10-barrel lot (1,800 pounds).

3 Per 25-bushel lot (1,900 pounds).

4 The average price of coal delivered in bin is 50 cents higher than here shown. Practically all coal is delivered in bin.

TABLE 1.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JANUARY 15 AND JULY 15, 1913, AUGUST 15, 1926, AND JULY 15 AND AUGUST 15, 1927—Continued

City, and kind of coal	1913		1926	1927	
	Jan. 15	July 15	Aug. 15	July 15	Aug. 15
San Francisco, Calif.:					
New Mexico anthracite—					
Cerrojos egg.....	\$17.00	\$17.00	\$25.00	\$25.00	\$25.00
Colorado anthracite—					
Egg.....	17.00	17.00	24.50	24.50	24.50
Bituminous.....	12.00	12.00	16.22	15.50	15.40
Savannah, Ga.:					
Bituminous.....			<sup>5</sup> 10.88	<sup>5</sup> 10.63	<sup>5</sup> 10.38
Scranton, Pa.:					
Pennsylvania anthracite—					
Stove.....	4.25	4.31	11.00	10.48	10.48
Chestnut.....	4.50	4.56	10.67	10.23	10.23
Seattle, Wash.:					
Bituminous.....	7.63	7.70	9.76	10.07	9.77
Springfield, Ill.:					
Bituminous.....			4.38	4.44	4.44
Washington, D. C.:					
Pennsylvania anthracite—					
Stove.....	<sup>1</sup> 7.50	<sup>1</sup> 7.38	<sup>1</sup> 15.66	<sup>1</sup> 15.25	<sup>1</sup> 15.25
Chestnut.....	<sup>1</sup> 7.65	<sup>1</sup> 7.53	<sup>1</sup> 15.39	<sup>1</sup> 14.73	<sup>1</sup> 14.73
Bituminous—					
Prepared sizes, low volatile.....			<sup>1</sup> 10.79	<sup>1</sup> 10.67	<sup>1</sup> 10.67
Prepared sizes, high volatile.....			<sup>1</sup> 8.75	<sup>1</sup> 9.00	<sup>1</sup> 9.00
Run of mine, mixed.....			<sup>1</sup> 7.75	<sup>1</sup> 7.78	<sup>1</sup> 7.78

<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.

**Revised Index Numbers of Wholesale Prices, 1923 to August, 1927**

**T**HERE are presented herewith the results of a recently completed revision of the index numbers of wholesale prices constructed by the Bureau of Labor Statistics. This revision consists of (1) the addition of a number of important articles to the list of commodities included in the index, (2) a shift of the price base to the last completed year, 1926, and (3) the substitution of more recent "weights" for those heretofore employed. In addition, there has been a slight rearrangement of commodities in certain groups, while the former group of "clothing materials" has been superseded by two groups—"hides and leather products" and "textile products."

The number of commodities or price series has been increased from 404 to 550, some of these being composites made by combining three or more quotations into one. Additions to the list formerly used include, among others, such important items as agricultural machinery and plows, automobiles and tires, prepared fertilizers, by-product coke, manufactured gas, gloves, traveling bags and suit cases, rayon, sewing machines, stoves, box board, and mechanical wood pulp. Several articles no longer important, as clay worsted suiting, New York State hops, and Bessemer steel billets and rails, have been dropped.

The shift in the price base from 1913 to 1926 has been made in order that the latest and most reliable information may be utilized as the standard for measuring price changes. Also, it has become increasingly apparent that the year 1913 is now too remote to furnish a satisfactory base for comparing price levels in recent years.

For much the same reasons data for the years 1923 to 1925 have been substituted for the 1919 figures used in weighting the prices included in the index numbers. Where trustworthy information for the three years 1923, 1924, and 1925 could be procured, as in the case of agricultural products, the average for these years was used as the weight. For manufactured products the biennial census reports of 1923 and 1925 were used. In all cases the most recent and dependable information obtainable has been employed in constructing the weighted index numbers for the various groups of commodities. It is the purpose of the bureau to extend the revision of its index numbers further into past years as the exigencies of the work will permit, and additional results will be announced as fast as the computations are completed.

TABLE 1.—REVISED INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES, JANUARY, 1923, TO AUGUST, 1927

[1926=100]

Year and month	Farm products				Foods			
	Grains	Livestock and poultry	Other farm products	All farm products	Butter, cheese, and milk	Meats	Other foods	All foods
1923								
Average for year	88.0	77.7	116.7	98.6	103.4	76.2	99.6	92.7
January	87.8	78.9	118.0	99.6	110.9	80.3	92.9	92.3
February	90.0	78.7	118.3	100.0	107.4	76.0	94.9	91.2
March	89.4	78.8	118.8	100.2	106.0	74.6	99.3	92.6
April	92.7	75.7	116.2	98.5	102.4	74.5	102.3	93.3
May	91.5	77.8	111.6	96.7	94.3	74.6	103.3	92.3
June	87.8	75.1	113.4	96.0	92.5	75.5	102.0	91.7
July	83.6	78.1	108.6	94.0	94.3	76.1	98.5	90.5
August	84.3	82.0	109.2	95.8	100.1	77.2	94.2	89.9
September	87.2	84.2	115.5	100.0	105.9	81.9	97.2	94.0
October	92.9	78.0	118.9	100.6	108.4	79.6	101.7	95.8
November	85.3	71.8	128.2	101.8	110.5	74.1	103.1	95.1
December	82.4	72.7	127.1	101.0	109.0	71.6	100.7	92.9
1924								
Average for year	100.6	79.3	114.2	100.0	94.5	75.7	100.0	91.0
January	85.3	74.0	125.9	101.4	105.1	71.4	99.3	91.4
February	87.5	74.0	120.0	98.8	102.8	70.1	99.9	90.8
March	85.9	77.7	111.5	95.7	99.6	70.4	97.5	89.2
April	85.2	79.7	113.7	97.3	90.8	71.4	95.2	86.7
May	86.0	77.7	110.3	95.1	85.4	73.3	93.1	85.3
June	90.4	74.4	109.5	94.3	87.1	76.2	93.0	86.5
July	104.4	77.5	111.2	98.6	87.5	74.7	95.7	87.4
August	109.1	84.2	111.9	102.0	91.1	78.3	97.9	90.3
September	109.2	84.3	108.6	100.4	93.7	80.1	100.8	92.8
October	114.2	86.0	111.5	103.2	91.6	80.8	105.4	94.9
November	116.9	78.8	116.2	103.6	98.8	80.6	107.4	97.1
December	129.9	82.6	118.6	108.3	101.1	82.0	110.0	99.3
1925								
Average for year	118.3	98.9	114.5	109.8	101.1	93.3	104.5	100.2
January	139.7	87.8	122.9	113.8	99.5	82.3	111.2	99.7
February	136.9	91.7	118.1	112.4	100.0	81.8	107.2	97.7
March	124.5	104.8	114.2	112.8	103.5	88.8	104.1	99.1
April	116.3	100.0	109.9	107.6	100.0	91.6	99.8	97.3
May	123.8	96.8	108.8	107.3	96.3	88.8	101.8	96.7
June	121.5	100.9	110.9	109.3	94.4	89.3	104.6	97.8
July	114.8	106.7	115.0	112.1	97.6	94.3	103.2	99.4
August	115.9	105.5	114.3	111.6	100.8	97.4	103.5	101.2
September	107.5	105.1	114.4	110.0	103.9	98.5	102.4	101.6
October	104.3	97.9	114.4	107.0	106.2	104.6	102.2	103.8
November	106.8	93.8	118.4	108.1	106.0	104.2	107.6	106.2
December	110.0	93.9	111.8	105.4	104.6	99.0	103.9	102.4
1926								
Average for year	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
January	112.6	98.8	111.6	107.4	102.3	100.3	104.2	102.6
February	108.2	100.4	107.3	105.1	101.6	97.8	101.9	100.5
March	101.8	99.8	103.0	101.7	99.5	98.0	99.7	99.1
April	102.9	98.6	105.6	102.8	97.2	99.3	102.5	100.4
May	100.3	103.8	102.2	102.4	96.0	100.2	101.7	100.1
June	97.6	106.7	98.0	100.9	95.4	102.3	101.3	100.5
July	100.7	102.2	95.3	98.6	95.5	101.4	98.2	98.8
August	95.7	98.3	97.1	97.2	97.3	99.9	95.9	97.5
September	95.3	103.7	97.7	99.3	101.1	101.6	98.0	99.8
October	97.4	102.2	95.1	97.9	102.9	101.3	99.7	100.8
November	93.6	93.3	96.2	94.7	104.5	99.0	99.9	100.5
December	96.9	93.5	95.2	94.9	107.4	98.4	99.6	100.7
1927								
January	95.9	98.5	95.4	96.5	105.4	89.4	98.8	96.9
February	95.3	99.4	92.6	95.4	107.1	89.6	95.7	95.9
March	93.0	100.6	90.2	94.2	106.1	89.9	93.0	94.5
April	93.2	101.2	89.8	94.3	105.2	90.9	93.0	94.6
May	104.3	93.9	95.1	96.3	98.9	89.8	95.7	94.4
June	109.7	90.6	95.9	96.5	97.7	88.6	97.1	94.4
July	107.0	95.3	95.9	97.6	97.9	90.5	94.7	93.9
August	108.3	98.2	102.8	102.2	98.8	90.3	95.0	94.2

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TABLE 1.—REVISED INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES, JANUARY, 1923, TO AUGUST, 1927—Continued

[1926=100]

Year and month	Hides and leather products					Textile products				
	Hides and skins	Leather	Boots and shoes	Other leather products	All hides and leather products	Cotton goods	Silk and rayon	Woolen and worsted goods	Other textile products	All textile products
1923										
Average for year	117.6	104.1	99.1	103.8	104.2	116.9	129.5	107.5	77.4	111.3
January	130.9	107.0	98.9	103.8	107.6	116.9	127.8	104.4	79.5	110.2
February	135.5	107.1	98.9	103.8	108.6	118.9	129.5	106.0	79.7	111.8
March	137.2	107.8	99.4	103.8	109.4	121.0	132.0	107.6	78.9	113.4
April	137.1	107.8	99.4	103.8	109.3	120.3	135.3	110.1	78.9	114.4
May	135.4	107.0	99.4	103.8	108.8	117.3	135.1	110.4	77.1	113.0
June	121.8	104.6	99.4	103.8	105.5	115.0	128.9	109.2	76.6	110.5
July	110.8	104.9	99.4	103.8	103.3	111.8	123.3	108.2	76.5	107.9
August	107.3	102.9	99.4	103.8	102.1	110.3	122.1	107.3	75.4	106.7
September	102.0	102.4	98.9	103.8	100.7	113.5	134.0	107.2	75.9	110.2
October	100.8	101.7	98.9	103.8	100.3	115.5	135.1	106.8	76.2	111.1
November	91.2	100.0	98.9	103.8	97.9	120.3	126.3	106.4	76.5	111.4
December	99.1	98.4	98.9	103.8	99.2	124.1	124.7	106.3	77.0	112.7
1924										
Average for year	110.2	99.8	98.4	103.9	101.4	114.7	103.1	106.8	87.1	106.7
January	103.9	98.5	98.8	103.9	100.1	121.6	125.4	105.6	82.1	112.3
February	115.8	99.7	98.8	103.9	102.9	118.2	115.5	105.6	81.7	109.1
March	112.5	100.1	98.8	103.9	102.3	114.8	109.4	106.1	81.9	106.8
April	106.5	100.1	98.7	103.9	101.0	113.5	102.3	106.2	82.5	105.0
May	103.1	99.7	98.6	103.9	100.2	114.8	97.9	106.0	82.1	104.7
June	102.7	95.9	98.6	103.9	99.2	114.8	92.9	105.2	82.8	103.6
July	103.3	95.7	98.6	103.9	99.3	114.2	94.7	104.7	83.9	103.7
August	109.0	99.3	97.7	103.9	100.8	115.3	100.4	104.9	86.8	105.6
September	108.9	99.4	97.6	103.9	100.7	112.9	99.6	105.9	87.7	104.9
October	112.3	100.5	98.0	103.9	101.9	112.4	97.7	108.9	96.9	106.4
November	116.5	103.1	98.7	103.9	103.7	112.3	100.8	110.6	98.5	107.7
December	126.2	106.2	99.1	103.9	106.6	112.2	101.2	111.5	97.7	107.8
1925										
Average for year	118.7	104.8	100.5	104.0	105.4	110.0	104.5	110.2	104.1	108.3
January	136.3	109.1	100.2	104.0	109.9	111.1	101.8	113.3	104.1	108.8
February	138.7	110.6	100.4	104.0	110.9	111.0	102.9	114.2	103.6	109.2
March	129.9	110.6	100.6	104.0	109.1	112.0	100.5	114.1	105.5	109.4
April	120.0	108.2	100.6	104.0	106.5	111.5	101.1	113.1	102.5	108.6
May	114.6	103.1	100.6	104.0	104.3	110.3	102.4	111.1	101.7	107.7
June	110.4	103.5	100.6	104.0	103.5	108.8	102.9	110.6	100.9	106.9
July	114.6	103.1	100.7	104.0	104.3	108.8	103.9	109.8	102.2	107.1
August	114.8	101.9	100.7	104.0	104.1	109.3	106.1	108.2	103.5	107.4
September	112.5	101.9	100.7	104.0	103.6	109.8	107.9	107.0	104.2	107.6
October	110.0	101.9	100.7	104.0	103.1	110.3	108.5	106.8	107.0	108.3
November	110.0	102.1	100.7	104.0	103.1	108.7	107.8	107.3	106.2	107.7
December	112.8	101.8	100.7	104.0	103.6	107.4	108.1	107.0	106.8	107.0
1926										
Average for year	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
January	112.8	101.8	100.5	100.0	103.3	105.8	108.2	106.7	106.2	106.3
February	104.1	101.8	100.5	100.0	101.4	104.8	107.6	105.3	104.9	105.2
March	98.0	101.8	100.5	100.0	100.1	103.5	104.0	103.1	101.7	103.0
April	91.6	101.4	100.4	100.0	98.7	102.3	100.5	101.4	101.0	101.3
May	94.8	99.6	100.4	100.0	98.9	100.5	100.1	100.5	99.3	100.1
June	94.6	99.2	100.3	100.0	98.8	99.1	100.3	100.3	98.3	99.4
July	97.5	98.6	99.8	100.0	99.0	98.6	98.0	99.3	98.4	98.5
August	100.5	98.7	99.8	100.0	99.7	99.5	97.6	98.7	97.7	98.5
September	95.8	99.1	99.8	100.0	98.8	100.0	99.0	98.4	98.5	98.9
October	106.2	99.2	99.8	100.0	101.0	97.3	97.6	98.3	99.2	97.7
November	103.2	99.4	99.8	100.0	100.4	95.4	94.7	98.5	98.1	96.3
December	103.3	99.4	99.8	100.0	100.4	93.3	92.4	98.4	99.7	95.2
1927										
January	105.5	99.6	99.8	101.2	101.0	92.1	90.1	98.2	99.9	94.3
February	101.5	99.7	99.8	101.2	100.2	92.6	90.9	98.9	97.9	94.6
March	102.3	100.2	99.8	101.2	100.5	92.7	90.6	98.8	93.5	94.0
April	108.2	100.2	99.8	101.2	101.7	92.5	91.8	98.7	94.5	94.2
May	114.2	103.3	99.9	101.2	103.7	93.8	90.7	97.4	92.5	93.9
June	123.8	107.6	101.0	101.2	107.3	95.1	90.3	97.1	93.0	94.3
July	133.5	113.5	103.0	101.6	111.7	96.1	87.4	93.2	93.9	94.3
August	131.3	114.3	103.3	103.3	111.7	100.2	86.6	97.4	95.7	96.2

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TABLE 1.—REVISED INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES, JANUARY, 1923, TO AUGUST, 1927—Continued

[1926=100]

Year and month	Fuel and lighting					
	Anthracite coal	Bituminous coal	Coke	Manufactured gas	Petroleum products	All fuel and lighting
1923						
Average for year .....	100.8	113.4	118.8	104.8	82.6	97.3
January .....	101.4	136.9	134.6	106.8	88.7	108.4
February .....	101.1	129.9	130.7	105.8	101.4	111.8
March .....	100.7	122.1	131.6	105.8	103.7	110.6
April .....	97.0	115.4	130.5	105.8	98.5	105.6
May .....	97.5	112.6	123.3	105.8	87.5	99.3
June .....	98.1	110.1	119.5	104.8	86.0	97.6
July .....	99.2	107.9	114.3	104.8	79.1	93.6
August .....	100.4	106.8	113.1	102.9	75.0	91.4
September .....	102.9	107.1	113.3	102.9	71.3	90.0
October .....	103.6	105.7	108.8	102.9	69.6	88.6
November .....	103.8	103.8	103.0	102.9	64.7	85.5
December .....	104.0	103.0	101.9	102.9	65.5	85.6
1924						
Average for year .....	98.6	99.7	97.2	102.9	83.5	92.0
January .....	101.4	104.0	101.9	101.9	83.3	93.8
February .....	100.8	103.5	102.6	101.9	94.7	98.9
March .....	99.8	101.6	102.6	102.9	94.0	98.0
April .....	95.7	99.7	99.3	102.9	92.9	96.2
May .....	96.0	99.1	98.0	102.9	89.1	94.2
June .....	96.8	99.1	96.6	102.9	83.0	91.4
July .....	97.7	97.4	94.6	102.9	81.2	90.0
August .....	98.4	96.7	93.5	102.9	76.7	87.7
September .....	98.9	98.1	94.2	102.9	76.6	88.2
October .....	99.3	99.0	93.5	102.9	73.2	86.9
November .....	99.2	98.7	93.5	102.9	75.7	88.0
December .....	99.3	99.1	96.1	101.9	80.2	90.3
1925						
Average for year .....	99.7	96.5	97.7	101.9	95.0	96.5
January .....	98.3	98.3	97.4	101.9	83.5	91.5
February .....	98.1	96.5	96.9	101.9	104.2	100.6
March .....	97.0	95.5	95.6	101.9	99.9	98.1
April .....	93.0	94.3	94.3	102.9	94.3	94.6
May .....	92.7	94.3	93.3	101.9	96.4	95.5
June .....	93.3	93.8	92.5	102.9	104.2	99.0
July .....	94.1	93.8	92.6	102.9	102.3	98.2
August .....	95.7	94.7	93.4	102.9	95.4	95.5
September .....	99.9	97.7	94.9	101.9	89.3	94.1
October .....	108.6	98.2	105.8	101.9	87.4	95.1
November .....	112.9	100.5	111.0	101.9	89.4	97.6
December .....	112.9	100.7	105.9	101.0	91.7	98.3
1926						
Average for year .....	100.0	100.0	100.0	100.0	100.0	100.0
January .....	113.7	98.9	114.0	101.9	92.3	98.7
February .....	102.0	99.0	115.3	101.0	96.3	99.1
March .....	101.2	97.2	102.2	101.9	96.9	98.1
April .....	98.1	95.0	93.6	101.9	99.4	97.7
May .....	97.6	95.2	92.6	101.0	106.3	100.8
June .....	97.3	95.2	94.0	101.0	106.6	101.0
July .....	97.4	95.4	93.8	101.0	103.3	99.5
August .....	98.1	96.6	94.3	100.0	104.6	100.6
September .....	98.4	98.2	95.3	99.0	105.4	101.5
October .....	98.4	104.3	96.3	99.0	100.9	101.3
November .....	98.8	116.8	106.2	99.0	94.1	102.5
December .....	98.8	107.9	103.3	98.1	93.7	99.4
1927						
January .....	99.1	103.9	97.4	99.0	93.0	97.7
February .....	98.9	101.5	96.1	99.0	90.9	95.8
March .....	96.8	100.1	96.0	98.1	80.0	90.0
April .....	93.8	99.9	95.4	98.1	70.0	84.9
May .....	93.6	99.8	94.0	99.0	68.0	83.9
June .....	94.8	100.3	94.2	99.0	68.0	84.2
July .....	95.2	100.0	93.7	99.6	68.1	84.2
August .....	95.7	101.9	93.8	99.6	66.5	84.1

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TABLE 1.—REVISED INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES, JANUARY, 1923, TO AUGUST, 1927—Continued

[1926=100]

Year and month	Metals and metal products						Building materials			
	Iron and steel	Non-ferrous metals	Agricultural implements	Automobiles	Other metal products	All metals and metal products	Lumber	Brick	Portland cement	Structural steel
1923										
Average for year	117.3	95.3	98.8	108.7	103.3	109.3	111.8	103.6	107.9	123.7
January	106.6	95.0	98.5	107.9	104.2	105.0	114.1	102.2	105.2	102.1
February	110.6	99.4	98.5	107.9	104.2	107.1	116.8	102.7	108.5	107.2
March	117.1	107.4	98.5	107.9	103.2	110.8	120.7	103.3	108.5	112.3
April	122.9	106.8	98.6	107.9	103.2	112.8	123.4	104.3	108.5	132.8
May	122.8	100.4	98.6	107.9	103.2	111.7	120.0	102.8	108.5	134.0
June	120.6	95.8	98.8	108.0	103.2	110.3	114.2	104.9	108.5	130.2
July	119.5	92.3	98.9	114.3	103.2	111.8	110.9	105.3	109.4	127.7
August	119.1	91.2	98.9	111.8	103.2	110.5	107.6	104.3	109.6	127.7
September	118.7	90.6	98.9	112.0	103.2	110.3	103.9	103.2	109.6	127.7
October	117.6	87.4	98.9	105.3	103.2	106.7	104.7	103.3	108.6	127.7
November	116.9	88.4	98.9	105.2	103.2	106.5	104.2	103.3	105.7	127.7
December	117.2	90.5	98.9	105.2	103.2	107.0	101.2	104.2	104.2	127.7
1924										
Average for year	109.4	93.0	105.7	107.5	101.7	106.3	99.3	103.4	105.7	114.2
January	117.5	91.1	105.8	107.0	101.5	108.0	103.8	104.3	104.8	127.7
February	117.6	94.0	105.8	107.0	101.5	108.5	104.6	104.2	105.2	127.7
March	116.9	97.7	105.8	107.1	102.1	108.9	103.7	104.2	105.6	127.7
April	113.2	93.4	105.8	107.1	102.1	106.8	103.5	104.2	105.7	125.1
May	110.8	88.9	105.8	107.1	102.1	105.2	102.6	104.1	106.1	121.3
June	109.1	86.8	105.8	107.1	102.1	104.3	96.6	104.3	106.1	116.2
July	107.5	87.0	105.7	107.1	101.5	103.7	93.8	103.7	106.1	112.3
August	105.8	93.1	105.7	109.1	101.5	104.9	94.1	103.5	106.1	109.8
September	103.9	92.4	105.7	109.3	101.5	104.2	95.9	103.0	106.1	104.7
October	102.9	92.8	105.7	109.1	101.5	103.8	96.3	103.0	106.1	99.6
November	103.0	97.3	105.7	109.1	101.5	104.5	97.5	102.6	106.1	97.0
December	105.6	101.4	105.6	107.8	101.5	105.6	99.5	100.8	104.5	100.8
1925										
Average for year	102.2	101.4	100.4	105.3	100.5	103.2	100.6	100.1	102.6	102.2
January	107.3	105.8	100.4	107.2	100.6	106.5	103.2	100.5	103.1	107.2
February	107.2	103.3	100.4	107.2	100.6	106.1	106.7	100.6	103.2	104.7
March	106.5	99.5	100.4	107.6	100.6	105.4	103.3	100.4	103.2	107.2
April	103.1	95.1	100.4	107.6	100.6	103.5	99.5	100.8	103.2	104.7
May	101.5	95.7	100.4	107.6	100.3	103.0	100.8	100.9	103.2	102.1
June	100.6	96.7	100.3	107.6	100.3	102.8	96.9	99.9	103.2	102.1
July	100.0	99.1	100.4	107.6	100.3	102.9	96.8	99.7	103.2	102.1
August	99.4	103.2	100.4	103.3	100.3	101.7	99.4	99.5	103.2	98.3
September	99.2	103.7	100.4	101.5	100.3	100.9	99.0	99.5	103.2	99.6
October	99.6	104.9	100.4	100.0	100.9	100.7	99.7	99.4	101.7	99.6
November	100.9	106.5	100.3	100.0	100.9	101.4	100.5	100.0	100.4	99.6
December	101.4	103.9	100.3	100.0	100.9	101.2	102.2	100.1	100.4	99.6
1926										
Average for year	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
January	101.3	102.7	100.0	97.3	101.1	99.9	103.3	101.0	100.4	99.6
February	100.7	102.6	100.0	97.3	101.1	99.6	103.0	101.7	100.4	99.6
March	100.7	100.6	100.0	97.3	100.4	99.3	102.5	101.7	100.4	99.6
April	100.3	98.5	100.0	97.4	100.4	98.8	100.9	101.6	100.4	99.6
May	99.4	97.3	100.0	97.4	99.8	98.3	99.9	101.6	100.4	99.6
June	98.9	97.8	100.0	99.7	99.8	99.1	99.2	101.4	100.4	94.5
July	99.5	100.2	100.0	102.1	99.8	100.7	98.4	101.4	100.4	99.6
August	99.4	102.2	100.0	102.3	99.8	101.0	98.1	99.5	99.9	99.6
September	99.8	102.2	100.0	102.3	99.8	101.2	98.5	97.7	99.4	102.1
October	99.9	100.5	100.0	102.3	99.4	101.0	98.2	97.7	99.4	102.1
November	100.2	98.8	100.0	102.3	99.4	100.8	100.2	97.5	99.4	102.1
December	100.0	96.9	100.0	102.3	99.4	100.4	98.9	97.5	99.4	102.1
1927										
January	99.2	94.8	99.4	99.9	99.5	98.8	96.7	98.3	98.3	102.1
February	97.7	93.6	99.4	99.9	99.5	98.0	96.0	96.0	96.5	99.6
March	97.4	95.1	99.4	99.8	99.5	98.2	95.0	93.6	96.5	97.0
April	97.2	93.2	99.4	99.8	99.5	97.8	95.0	93.5	96.5	97.0
May	96.8	91.0	99.4	102.9	99.5	98.6	95.2	93.5	96.5	97.0
June	96.1	90.0	99.4	102.9	100.6	98.2	94.9	93.4	96.5	94.5
July	95.5	89.3	99.4	102.6	100.6	97.7	93.9	93.3	96.5	90.7
August	95.1	92.5	99.3	102.2	100.7	98.0	92.2	93.2	96.5	91.9

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TABLE 1.—REVISED INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES, JANUARY, 1923, TO AUGUST, 1927—Continued

[1926=100]

Year and month	Building materials— Continued			Chemicals and drugs					House-furnishing goods		
	Paint materials	Other building materials	All building materials	Chem- icals	Drugs and phar- maceu- ticals	Ferti- lizer materi- als	Mixed ferti- lizers	All chem- icals and drugs	Furni- ture	Furn- ish- ings	All house- furn- ish- ing goods
1923											
Average for year...	101.3	105.5	108.7	100.6	95.7	102.5	107.4	101.1	116.7	104.8	108.9
January.....	103.0	100.8	107.1	100.1	95.1	105.9	107.4	101.3	118.7	104.0	109.4
February.....	105.4	102.3	109.4	100.5	95.7	108.1	107.4	102.0	118.7	104.3	109.6
March.....	109.1	104.3	112.2	102.1	97.1	110.8	107.4	103.6	118.7	104.3	109.6
April.....	113.1	106.5	115.5	103.3	97.0	110.1	107.4	104.1	119.1	105.4	110.4
May.....	107.5	109.6	114.3	101.8	96.5	105.0	107.4	102.3	119.1	105.5	110.5
June.....	104.1	107.9	111.1	99.3	95.9	100.9	107.4	100.1	119.4	105.5	110.6
July.....	99.1	106.7	108.9	98.5	94.8	99.9	107.4	99.4	119.6	104.7	110.2
August.....	97.2	106.2	107.1	97.9	94.4	98.8	107.4	98.8	115.9	104.7	108.8
September.....	95.9	106.1	105.4	98.7	95.9	98.7	107.4	99.4	115.9	104.6	108.8
October.....	98.1	105.4	105.7	100.1	95.5	99.5	107.4	100.3	115.9	104.8	108.9
November.....	95.5	105.2	104.9	102.9	95.3	96.9	107.4	101.4	109.8	105.1	106.8
December.....	95.0	105.3	103.6	103.0	94.9	95.9	107.4	101.2	109.8	105.7	107.2
1924											
Average for year...	99.7	104.0	102.3	102.2	95.8	92.6	95.9	98.9	107.9	103.4	104.9
January.....	97.4	105.9	105.1	103.7	95.5	95.0	95.9	100.1	109.2	105.2	106.7
February.....	99.0	106.2	105.7	103.3	95.5	92.6	95.9	99.4	109.2	105.3	106.7
March.....	99.3	106.8	105.5	102.3	95.3	91.7	95.9	98.7	108.2	105.5	106.5
April.....	97.6	106.2	105.0	101.2	95.5	92.1	95.9	98.2	108.2	105.4	106.4
May.....	97.6	105.4	104.3	99.2	95.0	91.5	95.9	96.9	108.2	103.0	104.9
June.....	96.1	103.1	100.8	97.7	94.2	91.7	95.9	95.9	107.9	102.4	104.4
July.....	96.1	102.3	99.2	98.9	94.2	89.6	95.9	96.2	107.3	101.7	103.8
August.....	99.2	103.1	99.7	102.3	95.6	92.2	95.9	98.8	107.3	101.9	103.9
September.....	99.8	102.1	99.9	102.4	96.3	91.9	95.9	98.9	107.3	102.1	104.0
October.....	101.7	101.3	99.8	103.5	96.8	92.3	95.9	99.6	107.3	102.0	104.0
November.....	104.9	101.8	100.5	105.5	97.5	94.2	95.9	101.2	107.3	102.9	104.6
December.....	106.3	103.2	101.8	105.5	97.3	96.2	95.9	101.5	107.3	103.3	104.8
1925											
Average for year...	109.3	100.4	101.7	104.1	97.7	98.8	100.4	101.8	104.6	102.2	103.1
January.....	111.7	102.2	103.8	105.8	97.5	98.7	100.4	102.7	108.1	102.5	104.5
February.....	111.6	102.7	105.2	103.6	97.5	99.5	100.4	101.6	108.1	102.4	104.5
March.....	108.6	101.5	103.3	103.4	97.5	99.8	100.4	101.5	105.7	102.5	103.7
April.....	105.6	100.5	101.1	102.4	97.9	99.3	100.4	100.9	105.7	102.9	103.9
May.....	107.6	99.1	101.4	102.3	97.3	98.7	100.4	100.7	105.7	102.8	103.9
June.....	106.1	99.3	99.6	102.2	97.2	96.4	100.4	100.2	105.7	102.1	103.4
July.....	103.6	99.5	99.3	102.7	97.1	95.9	100.4	100.4	105.4	101.5	102.9
August.....	106.7	99.9	100.6	104.1	97.1	96.8	100.4	101.4	105.4	101.5	102.9
September.....	112.8	100.0	101.1	105.6	96.9	99.9	100.4	102.6	103.9	101.6	102.4
October.....	113.7	99.9	101.3	106.0	97.1	100.3	100.4	103.0	103.7	102.4	102.9
November.....	113.5	99.8	101.5	106.2	99.8	100.7	100.4	103.6	102.3	102.0	102.1
December.....	109.6	100.2	101.9	104.6	100.1	101.1	100.4	102.8	102.3	102.0	102.1
1926											
Average for year...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
January.....	107.7	100.3	102.3	102.2	99.6	102.9	100.0	101.6	101.8	101.2	101.4
February.....	103.4	100.4	101.8	100.5	99.2	104.0	100.0	100.8	101.3	100.9	101.0
March.....	99.0	100.2	101.1	99.3	98.0	105.0	100.0	100.2	101.0	100.9	100.9
April.....	95.4	99.8	100.0	99.4	97.6	103.6	100.0	99.9	100.7	100.8	100.8
May.....	91.5	99.5	99.1	100.2	98.5	101.6	100.0	100.2	100.1	100.2	100.2
June.....	96.3	99.3	98.9	101.7	100.2	99.4	100.0	100.9	100.0	100.0	100.0
July.....	101.1	99.5	99.4	101.1	101.6	97.4	100.0	100.4	99.9	100.0	99.9
August.....	103.7	99.8	99.5	100.3	101.1	96.7	100.0	99.8	99.5	100.0	99.8
September.....	102.7	99.8	99.5	101.0	101.1	97.0	100.0	100.2	99.5	99.4	99.5
October.....	101.1	100.8	99.5	99.3	101.1	95.8	100.0	99.1	99.5	99.3	99.4
November.....	100.5	100.6	100.1	97.9	101.0	98.0	100.0	98.6	99.5	98.9	99.1
December.....	97.6	100.1	99.2	97.7	101.2	99.3	100.0	98.8	99.5	98.4	98.8
1927											
January.....	96.0	97.7	97.5	98.0	91.3	99.1	100.0	97.6	97.8	98.8	97.9
February.....	94.5	96.6	96.2	98.2	90.2	99.6	100.0	97.6	97.8	98.9	97.9
March.....	92.5	96.4	95.3	97.4	88.7	100.1	100.0	97.1	97.8	98.8	97.8
April.....	91.0	95.9	95.0	99.1	88.2	99.3	100.0	97.8	97.8	98.8	97.8
May.....	93.9	95.2	95.1	99.8	88.0	98.0	82.1	95.4	97.8	98.8	97.8
June.....	92.7	94.5	94.6	99.9	87.7	98.3	84.8	95.8	97.8	99.0	98.0
July.....	91.5	94.0	93.7	100.0	86.9	93.8	86.6	95.3	97.8	99.1	98.0
August.....	92.5	93.0	92.9	100.2	86.7	91.2	89.7	95.4	97.8	100.0	98.6

TABLE 1.—REVISED INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES, JANUARY, 1923, TO AUGUST, 1927—Continued

[1926=100]

Year and month	Miscellaneous						All commodities
	Cattle feed	Paper and pulp	Rubber, crude	Automobile tires	Other miscellaneous	All miscellaneous	
1923							
Average for year	118.5	102.8	61.3	-----	102.0	98.8	100.6
January	124.8	104.0	64.5	-----	100.3	99.8	102.2
February	127.4	103.7	71.6	-----	104.2	102.7	103.5
March	126.2	102.8	71.8	-----	107.3	103.4	104.6
April	120.0	103.8	67.5	-----	107.4	102.4	104.0
May	122.3	103.9	62.7	-----	104.5	100.8	102.0
June	106.3	103.6	53.9	-----	102.9	97.0	100.4
July	104.1	102.9	57.7	-----	101.5	96.7	98.6
August	111.7	103.0	61.2	-----	100.0	97.5	97.9
September	119.6	103.0	59.1	-----	98.9	97.4	99.7
October	122.5	101.9	53.4	-----	99.0	96.3	99.6
November	120.3	100.6	57.1	-----	99.1	96.3	98.6
December	116.9	99.5	55.2	-----	99.6	95.5	98.3
1924							
Average for year	110.2	100.7	54.3	-----	100.8	95.5	98.1
January	117.1	98.8	52.9	-----	106.5	97.4	99.8
February	110.5	98.6	52.6	-----	104.0	95.7	100.0
March	104.8	98.5	46.0	-----	104.0	93.9	98.7
April	99.0	99.5	47.1	-----	104.5	94.2	97.6
May	92.4	99.5	39.9	-----	103.1	91.8	96.1
June	93.3	99.6	37.5	-----	100.6	90.5	95.1
July	110.3	98.0	45.8	-----	97.9	92.0	95.9
August	114.8	99.5	54.2	-----	96.1	93.8	97.4
September	112.7	101.6	57.6	-----	96.4	95.1	97.5
October	118.0	101.2	66.9	-----	97.4	97.4	98.6
November	117.5	101.8	70.4	-----	98.3	98.5	99.6
December	127.9	111.7	80.5	-----	100.6	105.9	102.1
1925							
Average for year	112.7	105.2	149.9	-----	99.6	113.9	103.5
January	129.7	101.9	75.2	-----	101.5	101.7	103.5
February	110.4	98.9	73.6	-----	102.7	99.0	104.5
March	107.1	98.8	84.7	-----	101.8	100.3	104.8
April	107.4	112.0	90.2	-----	99.9	105.5	102.4
May	117.7	109.6	117.7	-----	98.9	110.0	102.1
June	118.3	107.7	158.8	-----	100.2	117.1	103.4
July	111.3	108.2	215.3	-----	99.8	126.5	104.6
August	114.3	108.9	167.5	-----	98.1	118.0	104.2
September	111.3	109.8	180.0	-----	97.5	120.0	103.7
October	104.7	103.8	205.8	-----	98.2	121.9	103.6
November	111.4	103.9	217.0	-----	97.8	124.4	104.5
December	110.0	100.3	206.2	-----	99.0	121.5	103.4
1926							
Average for year	100.0	100.0	100.0	100.0	100.0	100.0	100.0
January	111.1	106.5	164.1	123.3	99.9	116.8	103.6
February	101.1	109.4	128.3	110.8	99.5	109.0	102.1
March	98.0	105.8	120.9	108.8	99.7	106.3	100.4
April	104.8	102.6	105.2	108.3	99.9	103.9	100.1
May	99.1	101.6	99.7	108.3	99.8	102.5	100.5
June	96.2	100.7	89.2	108.3	100.8	101.0	100.5
July	100.3	100.3	85.6	97.2	100.4	97.5	99.5
August	99.3	99.5	80.7	92.8	100.3	95.4	99.0
September	95.6	95.7	85.1	91.4	100.0	94.2	99.7
October	93.5	92.1	87.7	91.4	99.8	93.4	99.4
November	97.6	92.1	82.0	83.6	99.6	90.8	98.4
December	105.3	93.7	78.1	78.6	99.7	89.9	97.9
1927							
January	110.0	93.0	80.7	78.6	99.6	90.3	96.6
February	115.8	92.9	78.3	78.7	100.3	90.6	95.9
March	110.9	92.8	84.1	78.7	100.0	90.9	94.5
April	113.2	93.4	83.8	78.7	100.2	91.3	93.7
May	117.7	92.2	84.1	78.7	100.3	91.3	93.7
June	117.8	92.0	76.1	78.7	100.6	90.2	93.8
July	115.4	92.0	72.0	77.9	100.0	89.3	94.1
August	125.4	92.0	71.9	77.9	100.0	89.9	95.2

[1912]

The following table furnishes a comparison of the bureau's old and revised general index numbers reduced to the same base, viz, 1926 equals 100, together with the purchasing power of the dollar as measured by each series, for the period from January, 1923, to August, 1927.

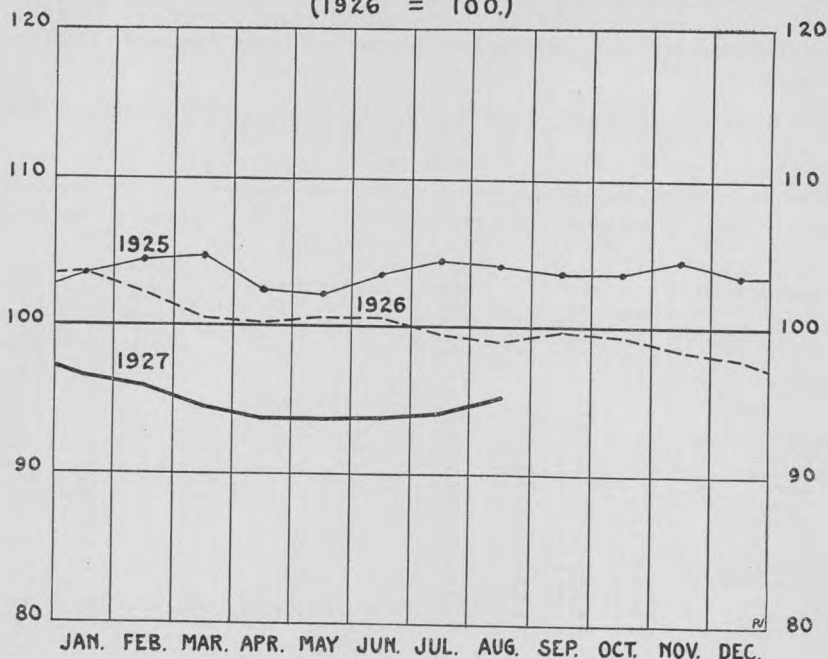
TABLE 2.—INDEX NUMBERS OF WHOLESALE PRICES AND PURCHASING POWER OF THE DOLLAR, JANUARY, 1923, TO AUGUST, 1927

[1926=100]

Year and month	Old series		New series		Year and month	Old series		New series	
	Index	Purchasing power of dollar	Index	Purchasing power of dollar		Index	Purchasing power of dollar	Index	Purchasing power of dollar
1923					1925—Continued				
Average for year	101.8	<i>Cents</i>	100.6	<i>Cents</i>	May	102.8	97.3	102.1	97.9
January	103.2	98.2	102.2	97.8	June	104.2	96.0	103.4	96.7
February	103.8	96.3	103.5	96.6	July	105.9	94.4	104.6	95.6
March	105.0	95.2	104.6	95.6	August	106.2	94.2	104.2	96.0
April	105.1	95.1	104.0	96.2	September	105.8	94.5	103.7	96.4
May	103.4	96.7	102.0	98.0	October	104.4	95.8	103.6	96.5
June	101.7	98.3	100.4	99.6	November	104.4	95.8	104.5	95.7
July	99.7	100.3	98.6	101.4	December	103.4	96.7	103.4	96.7
August	99.4	100.6	97.9	102.1	1926				
September	101.8	98.2	99.7	100.3	Average for year	100.0	100.0	100.0	100.0
October	101.4	98.6	99.6	100.4	January	103.3	96.8	103.6	96.5
November	100.7	99.3	98.6	101.4	February	102.6	97.5	102.1	97.9
December	100.0	100.0	98.3	101.7	March	100.3	99.7	100.4	99.6
1924					April	100.1	99.9	100.1	99.9
Average for year	99.1	100.9	98.1	101.9	May	100.5	99.5	100.5	99.5
January	100.1	99.9	99.8	100.2	June	100.9	99.1	100.5	99.5
February	100.5	99.5	100.0	100.0	July	99.8	100.2	99.5	100.5
March	99.3	100.7	98.7	101.3	August	98.8	101.2	99.0	101.0
April	98.3	101.7	97.6	102.5	September	99.7	100.3	99.7	100.3
May	97.3	102.8	96.1	104.1	October	99.1	100.9	99.4	100.6
June	95.8	104.4	95.1	105.2	November	98.1	101.9	98.4	101.6
July	97.4	102.7	95.9	104.3	December	97.5	102.6	97.9	102.1
August	99.1	100.9	97.4	102.7	1927				
September	98.5	101.5	97.5	102.6	January	97.3	102.8	96.6	103.5
October	100.6	99.4	98.6	101.4	February	97.0	103.1	95.9	104.3
November	101.1	98.9	99.6	100.4	March	96.2	104.0	94.5	105.8
December	104.0	96.2	102.1	97.9	April	95.5	104.7	93.7	106.7
1925					May	95.4	104.8	93.7	106.7
Average for year	105.1	95.1	103.5	96.6	June	95.2	105.0	93.8	106.6
January	106.0	94.3	103.5	96.6	July	95.8	104.4	94.1	106.3
February	106.4	94.0	104.5	95.7	August	97.1	103.0	95.2	105.0
March	106.6	93.8	104.8	95.4					
April	103.4	96.7	102.4	97.7					

## TREND OF WHOLESALE PRICES.

(1926 = 100.)



## Comparison of Retail-Price Changes in the United States and in Foreign Countries

THE principal index numbers of retail prices published by foreign countries have been brought together with those of this bureau in the subjoined table after having been reduced in most cases to a common base, namely, prices for July, 1914, equal 100. This base was selected instead of the average for the year 1913, which is used in other tables of index numbers of retail prices compiled by the bureau, because of the fact that in numerous instances satisfactory information for 1913 was not available. Some of the countries shown in the table now publish index numbers of retail prices on the July, 1914, base. In such cases, therefore, the index numbers are reproduced as published. For other countries the index numbers here shown have been obtained by dividing the index for each month specified in the table by the index for July, 1914, or the nearest period thereto as published in the original sources. As stated in the table, the number of articles included in the index numbers for the different countries differs widely. These results, which are designed merely to show price trends and not actual differences in the several countries, should not, therefore, be considered as closely comparable with one another. In certain instances, also, the figures are not absolutely comparable from month to month over the entire period, owing to slight changes in the list of commodities and the localities included on successive dates.

[914]

## INDEX NUMBERS OF RETAIL PRICES IN THE UNITED STATES AND IN OTHER COUNTRIES

Country...	United States	Canada	Belgium	Czechoslovakia	Denmark	Finland	France (except Paris)	France (Paris)	Germany
Number of localities...	51	60	59	Entire country	100	21	320	1	71
Commodities included...	43 foods	29 foods	56 (foods, etc.)	29 foods	Foods	36 foods	13 (11 foods)	13 (11 foods)	Foods
Computing agency.....	Bureau of Labor Statistics	Department of Labor	Ministry of Industry and Labor	Office of Statistics	Government Statistical Department	Central Bureau of Statistics	Ministry of Labor	Ministry of Labor	Federal Statistical Bureau
Base = 100...	July, 1914	July, 1914	April, 1914	July, 1914	July, 1914	January-June, 1914	August, 1914	July, 1914	October, 1913-July, 1914
<i>Year and month</i>									
1923									
Jan.....	141	142	383		180	1108		309	
Feb.....	139	142	397			1103	331	316	
Mar.....	139	145	408			1096		321	
Apr.....	140	143	409			1047		320	
May.....	140	140	413			1016	337	325	
June.....	141	138	419			1004		331	
July.....	144	137	429		188	1003		321	
Aug.....	143	142	439			1087	349	328	
Sept.....	146	141	453			1103		339	
Oct.....	147	144	458			1140		349	
Nov.....	148	144	463			1133	373	355	
Dec.....	147	145	470			1112		365	
1924									
Jan.....	146	145	480	836	194	1089		376	127
Feb.....	144	145	495	838		1070	400	384	117
Mar.....	141	143	510	830		1067		392	120
Apr.....	138	137	498	829		1035		380	123
May.....	138	133	485	825		1037	393	378	126
June.....	139	133	492	833		1040		370	120
July.....	140	134	493	837	200	1052		360	126
Aug.....	141	137	498	842		1125	400	366	122
Sept.....	144	139	503	853		1125		374	125
Oct.....	145	139	513	877		1156		383	134
Nov.....	147	141	520	889		1160	426	396	135
Dec.....	148	143	521	891		1160		404	135
1925									
Jan.....	151	145	521	899	215	1130		408	137
Feb.....	148	147	517	911		1120	440	410	145
Mar.....	148	145	511	904		1152		415	146
Apr.....	148	142	506	901		1137		409	144
May.....	148	141	502	894		1097	434	418	141
June.....	152	141	505	914		1101		422	146
July.....	156	141	509	916	210	1145		421	154
Aug.....	157	146	517	894		1222	451	423	154
Sept.....	156	146	525	884		1187		431	153
Oct.....	158	147	533	875		1165		433	151
Nov.....	164	151	534	863		1164	471	444	147
Dec.....	162	156	534	866		1138		463	146
1926									
Jan.....	161	157	527	854	177	1090		480	143
Feb.....	158	155	526	845		1106	503	495	142
Mar.....	156	154	521	832		1100		497	141
Apr.....	159	153	529	832		1085		503	142
May.....	158	152	558	837		1078	523	522	142
June.....	156	149	579	861		1090		544	143
July.....	154	149	637	876	159	1105		574	145
Aug.....	152	150	681	878		1153	610	587	146
Sept.....	155	147	684	878		1137		590	145
Oct.....	157	147	705	888		1126		624	145
Nov.....	158	148	730	902		1114	647	628	148
Dec.....	158	151	741	912		1110		599	150
1927									
Jan.....	156	153	755	914	156	1092		592	151
Feb.....	153	151	770	914		1095	586	585	152
Mar.....	150	149	771	915		1086		581	151
Apr.....	150	146	774	923		1069		580	150
May.....	152	145	776	931		1058	572	589	151
June.....	155	146	785	949		1072		580	153

## INDEX NUMBERS OF RETAIL PRICES IN THE UNITED STATES AND IN OTHER COUNTRIES—Continued

Country	Italy	Netherlands	Norway	Sweden	Switzerland	United Kingdom	South Africa	India (Bombay)	Australia	New Zealand
Number of localities	47	6	31	49	33	630	9	1	30	25
Commodities included	20 foods and charcoal	29 (27 foods)	Foods	50 (43 foods, 7 fuel and light)	Foods	21 foods	24 foods	17 foods	46 foods and groceries	59 foods
Computing agency	Ministry of National Economy	Central Bureau of Statistics	Central Bureau of Statistics	Social Board	Labor Office (revised)	Ministry of Labor	Office of Census and Statistics	Labor Office (revised)	Bureau of Census and Statistics	Census and Statistics Office
Base=100	1913	January-June, 1914	July, 1914	July, 1914	July, 1914	July, 1914	1914	July, 1914	July, 1914	July, 1914
<i>Year and month</i>										
1923										
Jan	542	148	214	166	160	175	117	151	145	139
Feb	527	149	214	165	158	173	117	150	144	140
Mar	524	149	214	166	159	171	117	149	145	141
Apr	530	149	212	163	161	168	117	150	152	142
May	535	147	214	161	164	162	118	148	156	143
June	532	145	213	161	166	160	118	146	162	142
July	518	145	218	160	166	162	116	148	164	142
Aug	512	143	220	161	166	165	115	149	165	143
Sept	514	142	218	165	167	168	115	149	161	145
Oct	517	145	217	165	167	172	117	147	157	146
Nov	526	149	221	164	171	173	120	147	157	147
Dec	528	149	226	164	172	176	118	152	156	147
1924										
Jan	527	150	230	163	173	175	120	154	155	150
Feb	529	151	234	162	172	177	122	151	153	149
Mar	523	152	241	162	171	176	122	147	152	150
Apr	527	152	240	159	169	167	122	143	150	150
May	530	151	241	159	169	163	122	143	151	150
June	543	151	240	158	170	160	120	147	149	150
July	538	150	248	159	170	162	117	151	148	148
Aug	534	150	257	163	170	164	117	156	147	146
Sept	538	152	261	165	170	166	117	156	146	145
Oct	556	154	264	172	174	172	120	156	146	145
Nov	583	156	269	172	175	179	122	157	147	148
Dec	601	157	274	172	175	180	121	156	148	150
1925										
Jan	609	156	277	170	172	178	120	152	148	147
Feb	609	157	283	170	172	176	120	152	149	146
Mar	610	157	284	171	171	176	121	155	151	149
Apr	606	155	276	170	169	170	124	153	152	149
May	600	154	265	169	168	167	123	151	154	150
June	602	152	261	169	169	166	122	149	155	149
July	605	152	260	169	169	167	120	152	156	151
Aug	619	152	254	170	169	168	119	147	156	152
Sept	642	152	241	168	170	170	118	146	156	153
Oct	645	149	228	166	168	172	119	148	157	155
Nov	652	149	223	165	168	172	117	149	156	156
Dec	653	148	221	164	167	174	116	151	155	154
1926										
Jan	658	148	216	162	165	171	116	151	155	154
Feb	649	147	212	160	163	168	117	150	154	153
Mar	636	147	205	159	161	165	118	151	159	152
Apr	633	146	198	158	161	159	119	150	163	151
May	643	146	195	157	159	158	119	150	163	151
June	647	146	194	157	159	158	118	152	162	151
July	645	146	198	156	159	161	117	155	159	149
Aug	648	146	196	156	157	161	117	153	157	150
Sept	656	149	193	157	158	162	117	152	155	148
Oct	662	148	191	157	160	163	120	153	153	147
Nov	655	148	186	158	159	169	119	152	155	146
Dec	622	146	184	157	159	169	117	154	158	149
1927										
Jan	629	147	180	156	158	167	116	155	158	148
Feb	615	146	177	153	157	164	117	152	153	146
Mar	610	146	173	151	156	162	118	152	151	146
Apr	606	145	169	151	156	155	119	151	151	145
May	599	145	169	150	156	154	121	150	152	145
June	558	145	172	151	157	154	120	151	153	144



# COST OF LIVING

## The Problem of "Returned Goods"

THE Crockery and Glass Journal (New York City) for August 25, 1927, contains the results of a study recently made by the University of Southern California to ascertain the sentiments of the members of women's clubs in Los Angeles on various questions relating to the practice of returning purchases made at retail stores. The questions asked were as follows:

1. Have you ever returned merchandise when it might not have been necessary if you had been more careful in buying?
2. Have you ever returned goods when it would have been unnecessary if the salesman had given you more information?
3. Did you ever make a purchase to save the feelings of a courteous clerk?
4. Should people pay for the privilege of having goods sent C. O. D.?
5. Ten per cent of the merchandise purchased in retail stores is returned. If it cost you 2 cents on each dollar's worth of merchandise you buy because of this privilege, would you still want it?
6. Should a penalty be charged on return goods after five days?
7. If one store allows returns and the other does not, which would you buy from?
8. Should the time of return be limited to three week days?
9. Some customers abuse the return privilege. If one store should refuse this privilege, dissatisfied customers would go to other stores. What should be done?
10. What other suggestions can you make concerning the amount of returns?

Two hundred and eighty replies were received. In some cases one questionnaire represented the views of a section of a club's membership and in others the views of the club as a whole. The study is therefore considered representative of the existing attitude although the number of actual reports received was small.

In regard to question 1, 107, or 38 per cent, stated that they had returned merchandise when it might not have been necessary, while 166 said they had not. The article states that if the questionnaire performs no other service than to remind 38 per cent of the housewives who received it that they are adding to the costs of retailing by returning goods which they bought carelessly it should prove worth while.

Out of 272 replies to question 2, 156 reported that they had been obliged to return purchases when it would have been unnecessary if the sales force had given more or better information, the remaining replies being in the negative. Some of the replies to this question suggested that "clerks should give attention only when desired"; that "stores need better salesmen so as to avoid wrong size, etc."; that "salesmen should not be too persistent or misrepresent things"; and that "salesmen are too eager to make sales."

In answer to question 3, 62 stated that they had bought to please a clerk, intending at the time to return the merchandise later.

One hundred and sixty-one said that they thought customers should pay for the privilege of having goods sent on approval or C. O. D., while 100 did not think so. Many expressed themselves as feeling that goods should not be sent on approval and others that stores are at fault in urging people to have goods sent on approval; that customers should make partial payments for the goods, losing the deposits if they return their purchases; or that a delivery charge should be made for goods sent on approval.

Of the 244 answering the question relating to paying for the return privilege, 145 were willing to pay for it, but 99 were not. Two hundred and six were in favor of penalizing the indifferent or careless returning of goods after 5 days, and 48 voted against it.

Two hundred and seventeen said that they would favor the store which gives the return privilege and 40 preferred the store that does not grant it.

On the matter of a return time limit, 113 voted in favor of 3 days and 52 against it, while 136 voted in favor of a 5-day limit and 49 against it. This gives a total of 249 who were in favor of a time limit on the return of goods. Many comments were received on this point. Sixty-five different persons suggested uniform action by all stores; some suggested the enforcement of the limit only to unreliable customers; others felt that the rule should be modified under certain conditions or in regard to certain goods.

In summing up the data obtained in the study, the following tentative conclusions were reached:

1. Consumers seem to want uniform action by all the stores so all will be treated alike. While this question was not asked for in the questionnaire, 65 suggested it of their own accord.

2. A majority of consumers believe that those who have goods sent on approval or C. O. D. should pay for the privilege.

3. A big majority were in favor of penalizing those who abused the return privilege. Many were indignant that they had to pay for the sins of others.

4. Again a majority favored the 3 or 5 day limit on the return of merchandise.

5. The public does not yet consider the sales force as ideal by any means.

6. Many expressed themselves as being opposed to the store policy of urging people to buy by emphasizing the ease of the returning of merchandise not liked. If this question had been asked, a large vote probably would have been polled.

7. Sentiment in favor of a penalty in case goods were not returned within the limit was very strong.

8. Many indirect indications point to the conclusions that the public is far more susceptible to consumer education on store costs, services, and policies than commonly supposed.

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### Income and Expenditure of a Laborer's Family in Buenos Aires in 1926

THE results of a recent survey made in Buenos Aires by the National Labor Department of Argentina to ascertain the average income and expenditure of a laborer's family during the year 1926 appear in the April, 1927, issue of *Cronica Mensual* of Buenos Aires (pp. 1987-1991). The data were obtained from a study of 700 families, including 2,772 persons.

The report states that the average earnings of the workman's family in 1926 were 1,995.17 paper pesos<sup>1</sup> as against 2,032.99 pesos

<sup>1</sup> All amounts are given in paper pesos, which are worth 44 per cent of the gold pesos, the average exchange rate of which was 92.15 cents in 1926, making the paper peso equal 40.5 cents.

in 1925 and 2,006.36 in 1924, while the average annual expenditure per family in 1926 was 1,923.44 pesos, as against 1,976.17 in 1925 and 2,023.81 in 1924.

Of the 700 families investigated, 530 had balanced budgets, 135 had a surplus which averaged 500 pesos for the year, and 35 families reported an average deficit of 502 pesos.

The following tables show the average income and expenditure of the 700 laborers' families in Buenos Aires in 1926, by means of support and by number of persons in family. The exact distribution of the "other expenses" was not ascertainable. In the table showing the average income and expenditure by number of persons in family the last two columns were not given in the original report but have been computed. There is a slight discrepancy in the average annual expenditure as shown by the two tables.

TABLE 1.—AVERAGE ANNUAL INCOME AND EXPENDITURE FOR 700 FAMILIES IN BUENOS AIRES, BY MEANS OF SUPPORT

[The average exchange value of the paper peso in 1926 was 40.5 cents]

Families supported by—	Number of families	Average annual income	Average annual expenditures	Families supported by—	Number of families	Average annual income	Average annual expenditures
		<i>Pesos</i>	<i>Pesos</i>			<i>Pesos</i>	<i>Pesos</i>
Father.....	250	1,785.26	1,756.56	Single woman.....	17	758.71	764.47
Mother.....	28	940.71	1,163.78	Uncle and one or more nephews.....	4	2,835.00	2,250.00
Parents.....	115	1,845.76	1,885.51	Grandfather and one or more grandchildren.....	4	2,248.50	2,013.00
Parents and one or more children.....	18	2,611.11	2,440.67	One son-in-law.....	1	2,160.00	2,016.00
Father and one or more children.....	117	2,871.25	2,689.69	Two unrelated persons.....	1	3,600.00	2,400.00
Mother and one or more children.....	62	1,846.06	1,852.18	One grandchild.....	1	1,200.00	1,200.00
One or more children.....	44	2,305.84	2,174.48	Average (pesos).....		1,995.17	1,923.44
Father and brother (or sister) in law.....	1	2,280.00	2,040.00	Average (U. S. currency).....		\$808.04	\$778.99
One or more brothers.....	14	2,539.28	2,069.57				
Single man.....	23	1,361.22	1,244.87				

TABLE 2.—AVERAGE ANNUAL INCOME AND EXPENDITURE FOR 700 FAMILIES IN BUENOS AIRES, BY NUMBER OF PERSONS IN FAMILY

[The average exchange value of the paper peso in 1926 was 40.5 cents]

Number of persons in family	Number of families	Average annual income	Average annual expenditure for—				Average surplus (+) or deficit (-)
			Food	Rent	Miscellaneous items	All purposes	
		<i>Pesos</i>	<i>Pesos</i>	<i>Pesos</i>	<i>Pesos</i>	<i>Pesos</i>	<i>Pesos</i>
Husband and wife.....	107	1,647.53	595.51	425.94	565.74	1,587.19	+60.34
Parents and one child.....	77	1,898.86	756.62	433.80	561.27	1,751.69	+147.17
Parents and two children.....	92	2,037.91	988.04	467.73	554.61	2,010.38	+27.53
Parents and three children.....	98	2,143.10	1,141.19	449.44	480.21	2,070.84	+72.26
Parents and four children.....	57	2,423.47	1,354.74	508.15	534.53	2,397.42	+26.05
Parents and five children.....	29	2,654.76	1,514.48	578.07	508.14	2,600.69	+54.07
Parents and six children.....	15	2,711.60	1,704.00	566.40	517.46	2,787.86	-76.26
Parents and six children and two grand- parents.....	1	1,980.00	1,200.00	720.00	60.00	1,980.00	-----
Parents and seven children.....	12	3,025.00	1,170.00	675.00	527.50	2,372.50	+652.55
Parents and eight children.....	4	2,548.50	2,010.00	609.00	390.00	3,009.00	-460.50
Parents and nine children.....	3	3,040.00	2,080.00	424.00	536.00	3,040.00	-----
Parents and ten children.....	2	3,990.00	2,760.00	720.00	510.00	3,990.00	-----
Parents, one child, and one nephew.....	1	2,400.00	1,200.00	-----	1,200.00	2,400.00	-----
Parents, one child, and two nephews.....	1	2,160.00	1,200.00	780.00	180.00	2,160.00	-----
Parents, two children, and two nephews.....	1	2,160.00	1,440.00	300.00	420.00	2,160.00	-----
Parents, two children, and one brother- in-law.....	1	2,400.00	1,440.00	420.00	540.00	2,400.00	-----
Parents, two children, and mother-in- law.....	1	1,800.00	1,200.00	360.00	240.00	1,800.00	-----
Parents, three children, and one brother-in-law.....	1	2,520.00	1,560.00	900.00	60.00	2,520.00	-----
Husband and wife and one nephew.....	1	2,340.00	900.00	420.00	636.00	1,956.00	+384.00
Husband and wife and two nephews.....	1	2,520.00	960.00	600.00	960.00	2,520.00	-----
Husband and wife and one godchild.....	1	1,800.00	840.00	-----	960.00	1,800.00	-----
Husband and wife and brother-in-law.....	3	1,920.00	900.00	408.00	492.00	1,800.00	+120.00
Husband and wife and two brothers-in- law.....	1	2,160.00	1,080.00	456.00	624.00	2,160.00	-----
Husband and wife and one grand- daughter.....	1	1,800.00	720.00	384.00	696.00	1,800.00	-----
Husband and wife and two grand- daughters.....	1	1,800.00	960.00	432.00	408.00	1,800.00	-----
Husband and wife and mother-in-law.....	1	1,680.00	720.00	540.00	420.00	1,680.00	-----
Father and one child.....	11	1,859.45	632.73	400.36	624.55	1,657.64	+201.81
Father and two children.....	9	2,506.67	893.33	401.33	764.00	2,058.66	+448.01
Father, two children, and one brother- in-law.....	1	2,280.00	960.00	300.00	780.00	2,040.00	+240.00
Father and three children.....	5	2,628.00	1,080.00	403.20	1,084.00	2,567.20	+60.80
Father, three children, and daughter-in- law.....	1	3,690.00	1,440.00	720.00	1,308.00	3,468.00	+222.00
Father and four children.....	2	2,235.00	1,500.00	420.00	315.00	2,235.00	-----
Mother and one child.....	25	1,321.20	492.00	398.88	416.88	1,307.76	+13.44
Mother and two children.....	34	1,848.29	734.12	402.18	571.47	1,707.77	+140.52
Mother and three children.....	16	1,861.87	937.50	444.75	526.50	1,908.75	-46.88
Mother and four children.....	13	1,981.15	1,107.69	428.00	485.77	2,021.46	-40.31
Mother and five children.....	3	1,322.00	980.00	540.00	302.00	1,822.00	-500.00
Mother and six children.....	2	2,640.00	1,560.00	630.00	450.00	2,640.00	-----
Mother and seven children.....	1	3,360.00	1,920.00	780.00	660.00	3,360.00	-----
Mother and ten children.....	1	3,390.00	2,160.00	456.00	234.00	2,850.00	+540.00
Mother, one child, and son-in-law.....	1	2,160.00	720.00	420.00	876.00	2,016.00	+144.00
Mother, one child, and one godchild.....	1	1,080.00	720.00	240.00	120.00	1,080.00	-----
Mother, one child, and one grandson.....	1	1,320.00	720.00	312.00	288.00	1,320.00	-----
Mother, two children, and three grand- children.....	1	1,860.00	1,200.00	540.00	120.00	1,860.00	-----
Single man.....	23	1,361.22	438.26	342.26	464.35	1,244.87	+116.35
Single woman.....	17	758.82	243.53	309.00	230.12	782.65	-23.83
Two brothers.....	5	2,280.00	648.00	403.20	595.20	1,646.40	+633.60
Two brothers and one child.....	1	3,120.00	1,080.00	288.00	996.00	2,364.00	+756.00
Two brothers and one cousin.....	1	3,240.00	900.00	540.00	1,080.00	2,520.00	+720.00
Two brothers and two grandsons.....	1	1,080.00	720.00	384.00	216.00	1,320.00	-240.00
Three brothers.....	5	2,562.00	936.00	535.20	769.20	2,240.40	+321.60
Four brothers.....	1	3,360.00	1,200.00	360.00	1,140.00	2,700.00	+660.00
Uncle and two nephews.....	2	3,240.00	990.00	432.00	840.00	2,262.00	+978.00
Grandfather and two grandsons.....	2	2,140.00	630.00	444.00	288.00	1,362.00	-222.00
Two unrelated persons.....	1	3,600.00	600.00	720.00	1,080.00	2,400.00	+1,200.00
Average (pesos).....		1,995.17	950.23	452.06	530.84	1,933.13	+62.04
Average (U. S. currency).....		\$808.04	\$384.84	\$183.08	\$214.99	\$782.92	+\$25.13

# LABOR AWARDS AND DECISIONS

## Awards and Decisions

### Railroads, Maintenance-of-Way Employees—Chicago & North Western Railway Co.

**A**N ARBITRATION award in a dispute between the maintenance-of-way employees and their employers, the Chicago & North Western Railway Co., was made by a board of arbitration, consisting of William Walliser and C. H. Westbrook appointed by the carrier, J. J. Farnan and E. E. Milliman named by the employees, and E. C. Davies and Homer B. Dibell named by the United States Board of Mediation, August 15, 1927.

The brotherhood asked a uniform rate of increase of 5 cents per hour. The carrier asked a decrease in the wages of some of the employees and asked that no change be made in others.

The employees are divided into 22 groups, the wages awarded to the various groups being as follows:

Bridge building—painter, construction, mason, and concrete foremen: Rate of \$172.50 per month unchanged.

Assistant, bridge building—painter, construction, mason, and concrete foremen: Rate of \$160 per month changed to 5 cents per hour in excess of the maximum rate paid in the gang supervised.

Carpenters and painters and leaders: Old rate, 57 cents to 69 cents per hour. Those receiving 57, 58½, and 59¾ cents increased to 58½, 60, and 61 cents, respectively. Those receiving 61¾, 62, 63, and 64¾ cents were unchanged. Those receiving 69 cents are given 58½ cents with varying differentials.

Carpenter and painter helpers: Old rates of 48½ to 67 cents per hour increased one-half cent per hour. The 67-cent rate is abolished, the one employee receiving it being given the minimum rate with a differential.

Masons and mason leaders: Old rates 59¾ to 68½ cents per hour; the minimum rate is increased to 61 cents; other rates unchanged.

Mason helpers: Old rates, 48½ and 51½ cents per hour, increased one-half cent.

Scale and bridge inspectors: Rate of 66 cents per hour unchanged.

Pile driver, ditching and hoisting engineers: Rates of \$139.08 and \$159.08 per month unchanged.

Pile-driver firemen: Rate of \$90.92 per month unchanged.

Track and section foremen and maintenance foremen: Rates \$115 to \$145 per month, increased \$5 per month.

Assistant track and section foremen and assistant maintenance foremen: Rates of 43, 45, and 49 cents per hour increased 1 cent per hour.

Extra gang foremen: Rate of \$140 per month increased \$5 per month.

Coal-chute foremen and coal-wharf and fence-gang foremen: Rate of \$110 per month unchanged.

Track and section laborers: Old rate, 38 cents per hour. New rate, 37 cents to those employed less than one year; 39 cents for one to two years' service; 41 cents for those who have served over two years.

Extra gang laborers: Rate of 38 cents per hour changed to 35 cents.

Laborers other than track and roadway, maintenance of way, and shop: Rate of 38 cents per hour unchanged.

Laborers, shops, engine houses, and power plants, coal-chute laborers: Rate of 38 cents per hour unchanged.

Common laborers, shops, engine houses, power plants, and stores: Rate of 38 cents per hour unchanged.

Lampmen: Old rates of \$47.95 to \$93.25 per month increased \$1 per month.

Pumpers: Rates of \$57.12 to \$98.88 per month unchanged.

Drawbridge tenders and assistants: Rates of \$70.92 to \$85.92 unchanged.

Crossing watchmen and flagmen: Rates of \$40 to \$135 per month unchanged except that the minimum is \$55.

The dissenting opinion filed by the arbitrators representing the carrier was as follows:

Because of the railway company's duty to furnish transportation efficiently and economically, the additional burden upon those paying the cost of transportation which will result from wage increases, the railway company's harassed financial condition, the fact that it can employ an abundance of labor for less than it is now paying, the fact that its employees are now earning more than they could earn in other lines of work and more than like labor is receiving in agriculture or industry, the fact that the cost of living is declining and that there is no economic justification for any wage increases, we dissent from the award of the majority.

A statement by the arbitrators representing the employees was as follows:

In order to make this award possible, we voted, in compromise, in favor of the increases granted only as an immediate measure of relief. But we do not consider the increases granted as adequate or sufficient.

In our judgment the evidence in the case amply sustained the contentions for increased wages for all employees, and reductions made are in our opinion not justified.

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### Railroads—Decisions of Train Service Boards of Adjustment

#### Eastern Region

**T**HE Train Service Board of Adjustment for the Eastern Region has recently decided two cases in regard to the wage rates to be applied in certain cases.

The first case was one on the New York Central Railroad, Docket No. 379, decided July 26, 1927. The main line of the Erie division crosses the main line of the Franklin division at Ashtabula. The Ashtabula yards are practically 6 miles in length east and west and 8½ miles in length north and south. The OD tower, an interlocking plant at the crossing of the roads, lies about 5 or 6 miles from the southern end of the yard and about 2 miles from the eastern end

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of the yard. Tower W is at the western end of the yard, and Carson at the southern end.

A crew assigned to the main-line service between Wesleyville and Collinwood were ordered light out of Wesleyville and to pick up a train of empties at Carson for Collinwood. They arrived at OD tower at 12.51 p. m., at Carson at 1.40 p. m., left Carson at 2.56, and passed tower W at 3.44 p. m.

The rule for conversion from through to local freight rates is as follows:

(b) Way freight, also crews of other freight trains which set out or pick up or handle way freight at four or more stations or do switching at any one point en route in excess of 1 hour and 45 minutes will be paid local rates.

NOTE 1.—Time of switching to begin at time of arrival and terminate at time of departure from the station. Paragraph (b) does not apply in initial or terminal territory or to the setting out of bad-order cars en route.

The members of the crew claimed that they were in Ashtabula over 1 hour and 45 minutes and that Note 1 was applicable to their case, and demanded pay at local rates.

The position of the management and the decision of the board were as follows:

*Position of management.*—The management contends that in figuring the time to determine whether local rate should be applied, only the time consumed at the point where work is actually performed should be taken into consideration, as it would be necessary for the crew to make the run between OD tower and tower W even had they made no stop.

Our records show that crews in freight service making stops at Ashtabula and Carson have consistently claimed separate stops at each point under the four-stop provision of the conversion rule and have been allowed local pay on that basis when four stops in the aggregate were made on any trip.

There have been some claims made by crews on the basis of the combined time at Ashtabula and Carson being over 1 hour and 45 minutes, but they have been consistently declined.

*Decision.*—Inasmuch as the management concedes that a crew doing work at West or Harbor Yards would if delayed over 1 hour and 45 minutes between arrival at OD tower and departure at W tower be paid local rate, the board decides the claim is sustained.

The other case was on the Boston & Maine Railroad, where a trainman ordinarily ended his work at 3.08 p. m., but on Saturday made an additional run ending Sunday morning at 1.15. He was paid for Saturdays, holidays, and the day before holidays on the basis of two days' pay. Rule 18 of the trainmen's agreement reads in part as follows:

Effective June 1, 1924, when the monthly earnings of regularly assigned passenger trainmen from daily guaranty, mileage, overtime, and other rules do not produce the following average amounts per day, they will be paid for each day service is performed: Baggage men handling express, \$5.50; baggage men, \$5.16; and brakemen, \$5.

The question arose as to how many days a month the trainman worked. The committee contended that he worked 30 days a month and actually performed service every day of the month and the fact that his Sunday assignment started before midnight should not deprive him of the benefits of a 30-day month.

The management contended that his daily mileage was 99.1 miles, increased Saturday to 227.66 miles. The carrier stated that it was its practice to date all time slips filed by men in engine, train, and yard service using the date on which the service commenced.

The Saturday trip is not a Sunday assignment simply because it extends beyond midnight Saturday 1 hour and 15 minutes. There are numerous Saturday assignments in passenger service which extend beyond midnight into Sunday, but they are considered a portion of the Saturday assignment exactly the same as though any other week-day assignment was completed after midnight, when it would be recognized without question as an assignment of the previous day.

The run advertised covers week-day trains only. His assignment was, therefore, one to be paid for on the basis of 26 days a month.

We contend that Mr. T. did not have a Sunday assignment and that a Sunday assignment is one which commences between 12.01 a. m. Sunday and midnight Sunday night, and that the method of payment for filling a Saturday assignment has nothing to do with the daily guaranty of any other day than Saturday, and that Mr. T. has been properly paid under the rules, as follows: 22 days at \$4.70, \$103.40; 4 days at \$9.75, \$39; a total of \$142.40.

The monthly guaranty of \$141 being earned in the 26-day period, any Sunday assignment involving extra service performed by Mr. T. would be paid entirely outside of the monthly guaranty.

*Decision.*—With the understanding that no precedent is established thereby, the board decides in this particular case that compensation should be based on daily earning guaranty for 30 days per month.

### Western Region

THREE decisions were made by the Train Service Board of Adjustment for the Western Region May 11, 1927, relative to the pay engineers and firemen are to receive when held at the away-from-home terminal, interpreting article 27 of the agreement made between the Atchison, Topeka & Santa Fe Railway Coast Line and the Brotherhood of Locomotive Engineers and Brotherhood of Locomotive Firemen and Enginemen. Article 27 reads in part as follows:

Engineers, firemen, and helpers in pool freight and in unassigned service held at other than home terminal will be paid continuous time for all time so held after the expiration of 16 hours from the time relieved from previous duty, at the regular rate per hour paid them for the last service performed. If held 16 hours after the expiration of the first 24-hour period, they will be paid continuous time for the next succeeding 8 hours, or until the end of the 24-hour period, and similarly for each 24-hour period thereafter.

In decision No. 2391 an engineer and fireman had stopped at Barstow, the away-from-home terminal in unassigned passenger service. They were held there for 25 hours and were paid for 8 hours at passenger overtime rate. They made claim for payment at  $1\frac{3}{5}$  passenger day in accordance with the statement in the last line of the first sentence of article 27 above quoted. The management refused to pay the higher rate on the ground that it never had done so.

The board sustained the claim.

In decision No. 2392 the engineer and fireman were held at Seligman, the away-from-home terminal in unassigned passenger service, for 23 hours and 50 minutes, when they went, under pay, deadheading back to the home terminal. They were paid for 7 hours and 50 minutes at passenger overtime rate. They claimed pay at one-fifth of the daily passenger rate. Their claim was sustained by the board.

Decision No. 2393 was an exact duplicate of the preceding except that the time held was 23 hours and 25 minutes. The decision was the same as in the two preceding cases.



**Railway Clerks—Wabash Railway Co.**

AUGUST 17, 1927, a decision in the dispute between the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees and the Wabash Railway Co. was made by a board of arbitration consisting of S. E. Cotter, appointed by the carrier, George M. Harrison, selected by the brotherhood, and Fred L. Williams, appointed by the United States Board of Mediation. The award was as follows:

This award shall be made effective as of August 16, 1927, and the increases in rates of pay granted herein shall be added to the rates in effect August 15, 1927.

SECTION 1. All clerks, etc., designated in rule 1, section 1, of the schedule effective May 1, 1924,  $3\frac{1}{2}$  cents per hour.

SEC. 2. All employees in rule 1, sections 2 and 3, of the schedule effective May 1, 1924, commonly known as station employees, including such as baggage-room employees, callers, watchmen, janitors, etc., 2 cents per hour.

SEC. 3. All employees in rule 1, sections 2 and 3, of the schedule effective May 1, 1924, such as messengers, chore boys, and those engaged in assorting waybills, etc., not requiring clerical ability, 2 cents per hour.

SEC. 4. Employees without previous clerical experience as a clerical worker hereafter entering the service and filling positions of clerk or machine operator shall be paid as follows: First six months \$2.35 per day, second six months \$3.19 $\frac{1}{4}$  per day, and thereafter shall be paid the established full rate of pay for the position occupied.

SEC. 5. Freight handlers as generally designated in rule 1, schedule for freight handlers, effective May 1, 1924,  $2\frac{1}{2}$  cents per hour.

SEC. 6. The following differentials shall be maintained between freight handlers and the classes named below: (a) Sealers, scalers, and fruit and perishable inspectors, 3 cents per hour above the rates for truckers; (b) stowers, stevedores, callers, etc., 4 cents per hour above the rates for truckers.

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**Trade Agreements in 1926**

THE Bureau of Labor Statistics has just issued as Bulletin No. 448 a compilation of trade or collective agreements for the year 1926. This is the third compilation of its kind made by the bureau. The present bulletin, however, is somewhat broader in scope through the inclusion of railroad agreements, which had been omitted previously owing to their length.

Since 1912 the bureau has made an effort to collect agreements made in the leading industries. The number of agreements made annually is not known, as most of them are not printed. In fact, probably the majority of them are not reduced to writing, but are simply verbal understandings. That the number of agreements made must be very large is evidenced by the fact that the bureau has a collection of 17,000 copies, having received over 1,500 during the current year. It is evident that only a small percentage of them can appear in a bulletin of this character.

The constitutions of the international organizations frequently contain clauses required to be inserted in all agreements made by unions under their jurisdiction. As many locals insert these and other items in their own constitutions it occasionally happens that the by-laws and constitution of a local contain all that elsewhere appears in written agreements. In fact the observance of the by-laws by an employer is occasionally the only agreement required, and failure on his part to observe the by-laws results in the loss of his help.

Sometimes the agreement requires the employer to observe the rules, by-laws, or constitution of the union, and occasionally such observance is not required. Some agreements read as if they were a promise made by the employer.

There is no uniform method of making agreements. The less formal are made by a local and presented to the employers for acceptance. Others are made by the national officers of the union, by delegates, by large sections of the unions, by district councils, or by small groups of locals in a city and its vicinity, or by the locals or their officials, acting in accordance with the vote of the local made in general meeting as to what it desires to have inserted in the next agreement. In some cases, a local is not allowed to make a demand on employers without first securing the approval of its national officers. In other cases a representative of the national board aids in the drawing up of the agreement. As a matter of fact, in a majority of cases the new agreement is merely a slightly revised copy of the old and the bargaining is over the insertion or the revision of a few items.

The agreement, after being made, is generally returned to the local for approval. It is accepted or rejected in open meeting after hearing the report of the officers. If rejected, it is returned to the officers for further consideration. If accepted, it is signed by the proper officers—president, secretary, business agent, or a committee—and in many cases sent to the national officers for their approval. In the meantime the agreement is being examined by the employers, for frequently it has been drawn up by a joint committee representing both employees and employers, and its exact wording is often a compromise between the two parties. If satisfactory the agreement is signed by the individual employers or by some one designated by them if they act collectively. In one case the agreement is signed by each member of the union.

The agreements are generally executed in duplicate, one copy being retained by the employer and one by the local. A third copy is sometimes made and filed with the national organization. In many cases these two or three copies are the only evidence of the contract. In some cases, however, the union prints the agreement and gives a copy of it to each member. Oftentimes the employers also print copies for their own use. The railroads very generally print copies for the use of their employees and officials. Sometimes the agreements are posted on the walls of the shop.

In a few cases the national organization issues a general form of contract with blank spaces for hours of work, wages, and a few other items that vary with the different unions. Such forms also serve as models for locals which print their own agreements.

From these various printed copies and a few typewritten copies furnished where the agreement has not been printed the present bulletin has been prepared.

# COLONIZATION

## Colonization Scheme in Argentina

**A**N ACCOUNT of a novel and recent colonization project in Argentina which was submitted by railway representatives and which has met with the approval of President Alvear and the Minister of Agriculture, appears in the September, 1927, issue of the Pan American Union Bulletin (pp. 900-902).

The railway companies of Argentina are to form an organization to be known as the Consorcio Ferroviario de Colonización for the purpose of colonizing the lands served by their systems and of developing the large tracts of agricultural land. A board elected by the associated railway companies is to manage this organization, whose object will be to bring families direct from abroad for the purpose of land settlement. Each railway company is to retain the management of the colonies within its own particular jurisdiction and will select and purchase the lands to be colonized as well as provide the necessary funds. The companies will contribute to the capital in proportion to the mileage of their lines.

The price charged the colonists for the land shall not exceed its cost price plus the improvements, value of the buildings, installations, etc., plus 10 per cent of the total sum, which is to serve as a reserve fund for incidental expenses. The colonists may purchase the land on a long-term part-payment plan. To families coming from abroad who may not have sufficient funds to defray the working expenses for the first year, the organization will advance a sum sufficient to purchase necessary equipment.

Each colony is to organize cooperative societies for the sale of provisions, etc., in order to supply the colonists with cheap clothing, groceries, and the like.

As each colony becomes sufficiently well settled an urban center is to be organized which will include a church, school, police station, building for the cooperative society, etc.

The article concludes as follows:

In view of Argentina's increasing need of intelligent, capable, and thrifty colonists for the development of her enormous extension of agricultural land—which if satisfied would go far toward solving the latifundia problem—the outcome of this latest colonization scheme, which appears to be entirely practicable and promising, will be followed with close attention by all interested in the progress of that young colossus in the Pan American family of nations—Argentina.

# IMMIGRATION AND EMIGRATION

## Statistics of Immigration for July, 1927

By J. J. KUNNA, CHIEF STATISTICIAN UNITED STATES BUREAU OF IMMIGRATION

**A** LIENS admitted to the United States in the first month of the new fiscal year beginning July 1, 1927, totaled 39,393. This is 5,440 less than the average admitted during the preceding 12 months. There was, however, a large outward movement of passengers in July last, 27,739 aliens having left here during the month, or 6,613 above the monthly average number of alien departures for the fiscal year ended June 30, 1927.

Many Americans responded to the lure of strange countries during the latter part of June and the first part of July, when the vacation exodus to Europe is at its height. The statistics for the two months show that 51,379 United States citizens left the country in June and 65,686 in July. The women outnumbered the men among these departures, the females comprising 60,254 and the males 56,811 of the 117,065 citizens leaving here during June and July, 1927. The vast majority of these citizens were destined to Europe via New York, 94,390, or four-fifths of the total for the two months, having embarked at that port. July, 1927, also saw the return of many of these tourists, 29,935 American citizens having arrived during this month.

Deportations in July, 1927, show an increase over the previous two months, but still below the monthly average of 972 for the fiscal year ended June 30, 1927, only 700 aliens having been deported from the United States under warrant proceedings during July last. Over 67 per cent of the July deportees came in over the international land boundaries, 318 entering from Canada and 154 from Mexico, the remaining 228 having gained admission to the United States at the seaports; nearly four-fifths of the total were surreptitious entries.

Aliens debarred from entering the United States during July last numbered 2,002, but only 268 of these were rejected at the seaports of entry. The other 1,734 aliens were refused admission at points along the land border, 1,514 having been turned back to Canada and 220 to Mexico. At New York, our principal seaport and where the bulk of the immigration from overseas continues to land, 18,110 aliens sought admission during the month, of whom 92 were debarred, or about 5 out of every thousand applicants; and most of these rejected were stowaways and seamen seeking permanent admission to the United States without first having obtained visas from American consuls. During the flood-tide immigration before the World War, when the annual immigration passed the million mark, the ratio

of rejections at the same port was over 16 per thousand seeking admission.

Of the 39,393 aliens of all classes admitted under the immigration act of 1924 during July last, 46 per cent, or 18,018, entered at New York and 6,197 at the other seaports, 8,210 came in over the northern land boundary, and 6,968 at points along the Rio Grande. Of the 8,210 aliens admitted from Canada, 6,182, or 75.3 per cent, were natives of that country; 1,830 were born in European countries, principally Great Britain and Ireland; and 198 in other countries. Of the aliens entering the United States from Mexico during the same month, numbering 6,968, over 96 per cent, or 6,737, were born in Mexico; 105 were natives of Germany, Great Britain, Spain, and other European countries; and 126 of China and other countries.

Of the July admissions, 13,656 were recorded under section 4-c of the act as natives of nonquota countries. Mexico, with 6,706, was the largest contributor of this class of aliens; while Canada sent 5,838; Central and South America, 545; the West Indies, 395; and Newfoundland, 172. Admissions during July under the act of 1924 also included 6,962 aliens of the class charged to the quota; while 6,099 came in as residents of the United States returning from a temporary sojourn abroad; 6,560 visitors for business or pleasure; and 2,669 were in continuous passage through the United States on their way elsewhere. The remaining admissions this month included, among others, 2,397 wives and children of United States citizens and 548 Government officials, their families, attendants, servants, and employees.

Canada, Mexico, Germany, Italy, Great Britain, Poland, and the Irish Free State, in the order named, were the principal countries from which the newcomers came during July, 1927, over four-fifths of the total immigrant aliens admitted this month coming from these seven countries. The same proportion of the permanent July departures were destined to Europe, 7,559 out of a total of 9,230 emigrant aliens for July giving countries on that continent as their future homes.

TABLE 1.—INWARD AND OUTWARD PASSENGER MOVEMENT DURING THE FISCAL YEAR ENDED JUNE 30, 1927, AND DURING THE MONTH OF JULY, 1927

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 <sup>2</sup>	Non-emigrant <sup>2</sup>	Total <sup>2</sup>			
Fiscal year ended June 30, 1927.....	335,175	202,826	538,001	378,520	916,521	19,755	73,366	180,142	253,508	369,788	623,296	11,662
July, 1927.....	23,420	15,973	39,393	29,935	69,328	2,002	9,230	18,509	27,739	65,686	93,425	700

<sup>1</sup> Not included among inward numbers, as they were not permitted to enter the United States.  
<sup>2</sup> Deported aliens are included among the emigrant or the nonemigrant aliens.

TABLE 2.—IMMIGRANT ALIENS ADMITTED TO AND EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING THE FISCAL YEAR ENDED JUNE 30, 1927, AND DURING THE MONTH OF JULY, 1927, BY RACE OR PEOPLE, SEX, AND AGE GROUPS

Race or people	Immigrant		Emigrant	
	Fiscal year 1927	July, 1927	Fiscal year 1927	July, 1927
African (black).....	955	83	870	59
Armenian.....	983	117	51	6
Bohemian and Moravian (Czech).....	2,406	62	1,724	230
Bulgarian, Serbian, and Montenegrin.....	600	38	1,592	149
Chinese.....	1,051	53	4,117	260
Croatian and Slovenian.....	821	58	251	21
Cuban.....	1,919	281	980	144
Dalmatian, Bosnian, and Herzegovinian.....	69	5	380	14
Dutch and Flemish.....	3,125	211	1,005	143
East Indian.....	51	2	83	6
English.....	40,165	3,250	7,449	1,177
Finnish.....	629	31	577	141
French.....	19,313	1,537	1,761	427
German.....	56,587	2,190	5,515	1,175
Greek.....	2,557	256	3,140	204
Hebrew.....	11,483	1,061	224	22
Irish.....	44,726	1,980	1,432	228
Italian (north).....	2,637	221	2,209	287
Italian (south).....	15,892	1,359	15,627	1,509
Japanese.....	660	37	1,148	74
Korean.....	47	3	52	3
Lithuanian.....	549	12	331	94
Magyar.....	1,049	81	946	120
Mexican.....	66,766	6,626	2,774	293
Pacific Islander.....	8	.....	7	.....
Polish.....	4,249	285	2,725	754
Portuguese.....	843	79	2,363	129
Rumanian.....	422	25	1,201	83
Russian.....	1,249	121	510	79
Ruthenian (Russniak).....	445	16	19	5
Scandinavian (Norwegians, Danes, and Swedes).....	19,235	817	3,678	357
Scotch.....	25,544	1,578	1,930	332
Slovak.....	1,017	185	693	67
Spanish.....	1,065	127	2,781	338
Spanish American.....	3,185	346	1,792	212
Syrian.....	684	83	203	15
Turkish.....	112	12	166	30
Welsh.....	1,300	131	65	10
West Indian (except Cuban).....	381	31	754	22
Other peoples.....	396	30	241	11
Total.....	335,175	23,420	73,366	9,230
Male.....	194,163	12,903	51,536	5,607
Female.....	141,012	10,517	21,830	3,623
Under 16 years.....	51,689	4,334	2,986	400
16 to 44 years.....	254,574	16,757	54,217	6,553
45 years and over.....	28,912	2,329	16,163	2,277

TABLE 3.—LAST PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED TO AND INTENDED FUTURE PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING THE FISCAL YEAR ENDED JUNE 30, 1927, AND DURING THE MONTH OF JULY, 1927, BY COUNTRY

[Residence for a year or more is regarded as permanent residence]

Country	Immigrant		Emigrant	
	Fiscal year 1927	July, 1927	Fiscal year 1927	July, 1927
Albania	243	16	237	4
Austria	1,016	59	468	90
Belgium	764	38	482	72
Bulgaria	222	16	130	9
Czechoslovakia	3,540	269	2,276	302
Danzig, Free City of	223	10	6	-----
Denmark	2,505	114	536	85
Estonia	139	9	14	1
Finland	438	21	536	129
France, including Corsica	4,405	226	1,637	476
Germany	48,513	1,649	4,748	960
Great Britain and Northern Ireland:				
England	9,990	520	4,994	876
Northern Ireland	491	14	165	1
Scotland	12,611	411	1,441	256
Wales	1,068	114	44	5
Greece	2,089	221	3,130	200
Hungary	813	73	841	105
Irish Free State	28,054	738	1,049	207
Italy, including Sicily and Sardinia	17,297	1,521	17,759	1,787
Latvia	403	8	21	5
Lithuania	770	50	314	85
Luxemburg	111	4	13	2
Netherlands	1,733	91	456	67
Norway	6,068	157	1,786	85
Poland	9,211	786	2,650	743
Portugal, including Azores, Cape Verde, and Madeira Islands	567	52	2,347	124
Romania	1,270	81	1,248	87
Russia	1,183	128	239	53
Spain, including Canary and Balearic Islands	429	46	2,778	286
Sweden	8,287	323	1,115	158
Switzerland	2,121	113	594	127
Turkey in Europe	216	55	24	1
Yugoslavia	1,190	70	1,911	165
Other Europe	388	25	13	6
Total, Europe	168,368	8,028	55,402	7,559
Armenia	13	5	20	2
China	1,471	109	4,179	267
India	102	7	126	13
Japan	723	43	1,205	80
Palestine	464	62	142	10
Persia	33	-----	33	4
Syria	590	68	185	14
Turkey in Asia	60	2	74	23
Other Asia	213	29	43	8
Total, Asia	3,669	325	6,007	421
Canada	81,506	7,180	1,953	233
Newfoundland	3,074	143	487	97
Mexico	67,721	6,723	2,957	317
Cuba	3,020	389	1,598	163
Other West Indies	999	88	2,134	146
British Honduras	108	6	20	2
Other Central America	1,663	187	701	98
Brazil	1,089	55	209	12
Other South America	2,688	213	1,244	124
Other America	4	-----	-----	-----
Total, America	161,872	14,984	11,303	1,192
Egypt	228	15	28	-----
Other Africa	292	24	84	8
Australia	464	32	379	32
New Zealand	248	9	129	18
Other Pacific Islands	34	3	34	-----
Total, others	1,266	83	654	58
Grand total, all countries	335,175	23,420	73,366	9,230

TABLE 4.—ALIENS ADMITTED TO THE UNITED STATES UNDER THE IMMIGRATION ACT OF 1924 DURING THE MONTH OF JULY, 1927, 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		
		Quota immigrant	Nonimmigrant and nonquota immigrant	Total during July, 1927
		July, 1927	July, 1927	
Albania.....	100	12	59	71
Andorra.....	100			
Austria.....	785	45	120	165
Belgium.....	1 512	26	139	165
Bulgaria.....	100	16	15	31
Czechoslovakia.....	3, 073	194	261	455
Danzig, Free City of.....	228	6	8	14
Denmark.....	1 2, 789	119	158	277
Finland.....	124	9	8	17
France.....	1 3, 954	184	289	473
Germany.....	51, 227	1, 709	1, 208	2, 917
Great Britain and Northern Ireland:				
England.....		860	2, 398	3, 258
Northern Ireland.....		89	43	132
Scotland.....	1 34, 007	620	886	1, 506
Wales.....		112	84	196
Greece.....	100	49	370	419
Hungary.....	473	22	127	149
Iceland.....	100	4	1	5
Irish Free State.....	28, 567	946	326	1, 272
Italy.....	1 3, 845	234	3, 108	3, 342
Latvia.....	142	11	12	23
Liechtenstein.....	100	2		2
Lithuania.....	344	18	64	82
Luxemburg.....	100	3	7	10
Monaco.....	100		1	1
Netherlands.....	1 1, 648	86	200	286
Norway.....	6, 453	167	235	402
Poland.....	5, 982	385	696	1, 081
Portugal.....	1 503	35	241	276
Rumania.....	603	24	143	167
Russia.....	1 2, 248	155	249	404
San Marino.....	100			
Spain.....	1 131	17	750	767
Sweden.....	9, 561	372	233	605
Switzerland.....	2, 081	123	139	262
Turkey in Europe.....	1 100	11	97	108
Yugoslavia.....	671	29	132	161
Other Europe.....	(1)	22	14	36
Total, Europe.....	1 161, 422	6, 739	12, 877	19, 616
Afghanistan.....	100		1	1
Arabia.....	100			1
Armenia.....	124	19	9	28
Bhutan.....	100			
China.....	100			
India.....	100	19	613	632
Iraq (Mesopotamia).....	100	6	76	82
Japan.....	100	27	9	36
Muscat.....	100	4	604	608
Nepal.....	100			
Palestine.....	100			
Persia.....	100	14	47	61
Siam.....	100	9	2	11
Syria.....	100	1		1
Turkey in Asia.....	100	16	96	112
Other Asia.....	(1)	1	88	89
	(1)	7	19	26
Total, Asia.....	1, 424	124	1, 564	1, 688

<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 THE MONTH OF JULY, 1927, BY COUNTRY OR AREA OF BIRTH—Continued

Country or area of birth	Annual quota	Admitted		
		Quota immigrant	Nonimmigrant and nonquota immigrant	Total during July, 1927
		July, 1927	July, 1927	
Cameroon (British).....	100			
Cameroon (French).....	100			
Egypt.....	100	7	16	23
Ethiopia.....	100			
Liberia.....	100			
Morocco.....	100	5	4	9
Ruanda and Urundi.....	100			
South Africa.....	100	18	43	61
South West Africa.....	100			
Tanganyika.....	100			
Togoland (British).....	100			
Togoland (French).....	100			
Other Africa.....	(1)	3	5	8
Total, Africa.....	1,200	33	68	101
Australia.....	121	19	451	470
Nauru.....	100			
New Zealand.....	100	7	158	165
New Guinea.....	100			
Samoa.....	100		3	3
Yap.....	100		5	5
Other Pacific.....	(1)	1	4	5
Total, Pacific.....	621	27	621	648
Canada.....			6,719	6,719
Newfoundland.....			324	324
Mexico.....			7,026	7,026
Cuba.....			1,537	1,537
Dominican Republic.....			129	129
Haiti.....			37	37
British West Indies.....		1 31	457	488
Dutch West Indies.....		(1)	14	14
French West Indies.....		(1)	3	3
British Honduras.....		1 1	13	14
Canal Zone.....			3	3
Other Central America.....			368	368
Brazil.....			137	137
British Guiana.....		1 7	15	22
Dutch Guiana.....		(1)	2	2
French Guiana.....		(1)		
Other South America.....			511	511
Greenland.....		(1)		
Miquelon and St. Pierre.....		(1)	6	6
Total, America.....		39	17,301	17,340
Grand total, all countries.....	164,667	2 6,962	32,431	39,393

<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.

<sup>2</sup> Also includes aliens to whom visas were issued during the latter part of the fiscal year ended June 30, 1927, and charged to the quota for that year. (Nationality for quota purposes does not always coincide with actual nationality. See sec. 12 of the act.)

TABLE 5.—ALIENS ADMITTED TO THE UNITED STATES UNDER THE IMMIGRATION ACT OF 1924 DURING THE FISCAL YEAR ENDED JUNE 30, 1927, AND DURING THE MONTH OF JULY, 1927, 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	Fiscal year 1927	July, 1927
<i>Nonimmigrants</i>		
Government officials, their families, attendants, servants, and employees.....	5,683	548
Temporary visitors for—		
Business.....	22,515	1,662
Pleasure.....	37,993	4,898
In continuous passage through the United States.....	28,312	2,669
To carry on trade under existing treaty.....	1,201	97
Total.....	95,704	9,874
<i>Nonquota immigrants</i>		
Wives of United States citizens.....	1,10,084	1,1,236
Children of United States citizens.....	1,8,421	1,1,161
Residents of the United States returning from a visit abroad.....	95,910	6,099
Natives of Canada, Newfoundland, Mexico, Cuba, Haiti, Dominican Republic, Canal Zone, or an independent country of Central or South America.....	<sup>2</sup> 158,657	<sup>2</sup> 13,656
Their wives.....	1,889	85
Their children.....	1,189	26
Ministers of religious denominations.....	595	64
Wives of ministers.....	338	29
Children of ministers.....	721	60
Professors of colleges, academies, seminaries, or universities.....	138	6
Wives of professors.....	40	2
Children of professors.....	21	
Students.....	1,833	112
Veterans of the World War.....	4,514	4
Wives of veterans.....	887	6
Children of veterans.....	980	8
Spanish subjects admitted to Porto Rico.....	10	3
Total.....	284,227	22,557
Quota immigrants (charged to quota).....	158,070	6,962
Grand total admitted.....	538,001	39,393

<sup>1</sup> Wives, and children under 18 years of age, born in quota countries.

<sup>2</sup> Does not include aliens born in nonquota countries who were admitted under the act as Government officials, visitors, etc.

### Restriction upon Immigration into Mexico <sup>1</sup>

THE immigration into Mexico of laborers from Syria, Lebanon, Armenia, Palestine, Arabia, and Turkey is forbidden, according to the provisions of an executive order issued on July 8, 1927, any person who upon arrival in the country does not possess at least 10,000 pesos <sup>2</sup> being considered a laborer.

The order states that immigrants from most of the above-mentioned countries declare on their passports that they are farm laborers, but upon their arrival they do not engage in this work. Their activities are not of a productive nature, but consist largely of money lending or street peddling with practically no capital. The Mexican Government feels justified, therefore, in prohibiting the admission of these aliens during the last quarter of 1927 as well as during the years 1928 and 1929.

The following are exempt from the foregoing restrictions: Husbands and wives of those who have been lawfully admitted, as well as their ascendants and descendants, provided that the latter have an honest means of livelihood and are in a good financial position.

<sup>1</sup> Mexico. Diario Oficial, Mexico City, July 15, 1927, p. 1.

<sup>2</sup> The exchange rate of the peso in 1926=48.31 cents.

## 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.*—Report on changes in number of employees and in amount of weekly pay roll in 736 industrial establishments, page 153.

*Hawaii.*—Report of Industrial Accident Board of the City and County of Honolulu, page 65.

*Illinois.*—Coal-mine accidents in 1926, page 60; and report on changes in employment and earnings in factories in the State, page 155.

*Iowa.*—Changes in volume of employment, page 157.

*Maryland.*—Changes in volume of employment in certain industries in that State, page 158.

*Massachusetts.*—Work of minimum wage division of State Department of Labor and Industries, page 33; and changes in volume of employment in various industries, page 158.

*New Jersey.*—Changes in volume of employment and pay roll in 855 establishments, page 160.

*Ohio.*—Injuries to minors in 1926, page 61; and occupational disease claims, page 62.

*Oklahoma.*—Operations under the State workmen's compensation act, page 66.

*Pennsylvania.*—Changes in employment, in man-hours worked, and in pay-roll totals in various industries, page 162.

*Tennessee.*—Mining accidents in 1926, page 63.

*Wisconsin.*—Penalties for violation of orders of State Industrial Commission, page 60; and volume of employment in Wisconsin industries, page 163.

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### General Discussion

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Proceedings of 45th-46th annual conventions, 1925-1926. Washington, D. C., 1925-1926.

1925: Union-management cooperation (Report of Executive Council) pp. 35, 36, 231; Statement of wage policy (recommending cooperation between labor and management in study of waste in production) p. 271.

1926: Cooperation between unions and management (need for cooperation, statement of basic principles upon which satisfactory industrial relations policies must rest) pp. 51, 52, 287, 317, 318.

#### BASES FOR UNION-MANAGEMENT COOPERATION.

American Federationist, March, 1926, v. 33, pp. 274, 275.

Editorial stressing the importance of the trade-union to the success of cooperation between labor and management.

#### BEYER, OTTO, S., Jr.

The economic functions of the organized labor movement.

Canadian Congress Journal, August, 1924, v. 3, No. 8, pp. 9-12.

#### —How as well as what.

American Federationist, August, 1926, v. 33, pp. 938-946.

On the need for consideration by labor organizations of matters of method as well as of policy. By the consulting engineer of the Railway Employees' Department, American Federation of Labor. See also paper on "The technique of cooperation" in Bulletin of the Taylor Society, February, 1926, pp. 7-20.

#### —Labor's new stand on labor saving.

Factory, February, 1926, v. 36, pp. 266, 267.

#### —Trade-union participation indispensable in efficient administration of industry.

(In Eighth Annual New York State Industrial Conference. Proceedings, 1924, pp. 81-85.)

Summarizes the proper basis of effective participation by labor in the conduct of industry as follows: (1) Full and cordial recognition of the bona fide unions of the employees as their proper agents in all matters affecting their welfare; (2) Extending to these unions and their spokesmen constructive as well as protective functions in management; (3) Agreement between unions and management to cooperate for improved service, elimination of waste, increased production, better morale, etc.; (4) Agreement to share fairly the consequent benefits; (5) Perfection of definite administrative machinery to accomplish these purposes.

#### BROWN, GEOFFREY C.

Workers' participation in job study.

American Federationist, November, 1925, v. 32, pp. 1029-1038.

Available also as a reprint.

#### —Workers' participation in job study.

American Federationist, June, 1927, v. 34, pp. 702-710.

Address before the Philadelphia Conference on Elimination of Waste in Industry, April, 1927. Printed also in Bulletin of the Taylor Society, June, 1927, v. 12, pp. 415-420.

"Only by some form of participation in job study can workers gain any opportunity for necessary self-expression in their daily work." In the opinion of this author the joint job-analysis committee in any industrial establishment needs the reinforcing strength of the workers' regular trade-union in order to give the workers a sense of freedom and strength essential to independent and creative thought.

<sup>1</sup> As defined in the pamphlet "The cooperative policy of the Railway Employees' Department, A. F. of L." (p. 3): "Union-management cooperation is not a cut and dried system or plan which can be introduced into a shop or railroad organization in the form of a finished product or method, such as you can do, for example, with a new machine tool, or a new process of welding. Cooperation is essentially a step forward in the human relationship between worker and manager. As such it has grown logically out of the recognition of the standard railroad labor unions and the existence of collective bargaining. Its purpose, just as the purpose of union recognition and collective bargaining, is to enable the railroads to operate more successfully, to provide better service to the public and to safeguard and improve the welfare of railroad employees."

BRUÈRE, ROBERT W.

The workers recapture their tools.

Survey, May 15, 1927, v. 58, pp. 210, 211.

The Philadelphia Conference on the Elimination of Waste in Industry as viewed by this writer revealed not only a shift in emphasis from the method of warfare to the method of "constructive" cooperation but showed that "what the workers are driving at, what they must drive at if they are to maintain their due functional status in industry, is not only an increased industrial income, but also the coordinate control with management of the new tools of large-scale machine production."

BUTLER, HAROLD B.

Industrial relations in the United States. Geneva, 1927. 135 pp. (International Labor Office, Studies and reports, series A, No. 27.)

"Cooperation between employers and trade-unions": pp. 93-105.

The concluding chapter of this report is reprinted in the Monthly Labor Review for September, 1927, pp. 39-44.

GARDINER, G. L.

Cultivating that "we" feeling.

Industrial Psychology, January, 1927, v. 2, pp. 28-34.

GREEN, WILLIAM.

Labor will cooperate to eliminate waste.

Printers' Ink, September 2, 1926, v. 136, pp. 3, 4+.

— Labor will help fight waste.

Industrial Management, January, 1926, v. 71, p. 46.

See also "Management's response to Mr. Green's proposals," p. 47 of same issue.

— Labor's ideals concerning management. Labor's attitude toward industry and industrial processes is changing—understanding and cooperation will serve the best interests of all.

Bulletin of the Taylor Society, December, 1925, v. 10, pp. 241-246.

Paper presented at joint meeting of Taylor Society and the management division of the American Society of Mechanical Engineers, New York, December 3, 1925. Discussion by John A. Fitch, Sanford Thompson, Royal Meeker and others, pp. 246-253.

Summarized in Monthly Labor Review, March, 1926, v. 22, pp. 554, 555.

— Labor's interest in industrial waste elimination.

American Federationist, June, 1927, v. 34, pp. 729-733.

Address before the Conference on Elimination of Waste in Industry, Philadelphia, April, 1927. Printed also in Bulletin of Taylor Society, June, 1927, v. 12, pp. 407-410.

— The new and advanced position of organized labor on vital problems of management and cooperation in the elimination of waste.

Industrial Management, April, 1926, v. 71, pp. 221-224.

Address before the Chicago Forum Council, January 10, 1926.

"Organized labor \* \* \* is irrevocably committed to the maintenance of high wages and high living standards. If given the opportunity it will cooperate earnestly and sincerely in all efforts to promote efficiency in management and the high standard of American workmanship."

— Peace in industrial pursuits.

Monthly Bulletin (Chamber of Commerce of the State of New York), November, 1926, v. 18, No. 4, pp. 23-28.

Address at the annual banquet of the Chamber of Commerce of the State of New York, November 18, 1926.

"If peace is to be established and maintained among those associated with the industrial life of the nation, they must think in terms of cooperation, understanding and mutuality \* \* \*. Labor stands ready to give to industry and to society the benefit of its organized strength and service."

— The problems which modern trade-unions confront.

American Federationist, April, 1925, v. 32, pp. 225-232.

Address before the Harvard Union, Harvard University, March 20, 1925. Traces the development from the defensive tactics of early trade-unionism to the new method of union-management cooperation.

Also printed by the American Federation of Labor in pamphlet form under title "Modern trade-unionism," 1925. 16 pp.

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"Labor is interested in the successful management of industry because it reasons that with the introduction of economy processes, in the development of efficiency and increased production the cost of manufacturing and production can be reduced without lowering the standard of the workers or reducing wages."

IS A NEW VIEW-POINT TOWARDS ORGANIZED LABOR JUSTIFIED?

Factory, January, 1925, v. 34, p. 37.

Extracts from statements by labor leaders.

**LABOR COMBATS WASTE.**

Nation, November 18, 1925, v. 121, p. 565.

Editorial on the statement on wage policy of the Atlantic City convention of the American Federation of Labor, 1925, recommending cooperation between labor and management in the study of waste in production.

**LABOR'S CONFERENCE ON THE ELIMINATION OF WASTE.**

Monthly Labor Review, July, 1927, v. 25, pp. 41-43.

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**LABOR'S INTEREST IN INDUSTRIAL WASTE ELIMINATION.** Four papers presented before a Conference on the Elimination of Waste in Industry, held under the auspices of the Central Labor College of Philadelphia, April 9 and 10, 1927.

Bulletin of the Taylor Society, June, 1927, v. 12, pp. 407-424.

CONTENTS.—Labor and waste elimination, by William Green.—Waste elimination in the full-fashioned hosiery industry, by Gustave Geiges.—Workers' participation in job study, by Geoffrey C. Brown.—Scientific management and waste elimination, by Fred J. Miller.  
Papers printed also in American Federationist, June, 1927.

For summary of the discussions at the conference see Monthly Labor Review, July, 1927, pp. 41-43; Survey, May 15, 1927, pp. 210, 211; Personnel Journal, August, 1927, pp. 145-147.

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Labour Gazette (Canada), August, 1927, v. 27, p. 831.

**MUFSON, ISRAEL.**

What of union management cooperation? A word in its favor.

Labor Age, October, 1926, v. 15, No. 10, pp. 8-10.

In the view of this writer a union-management cooperation plan is merely an extension of the power of collective bargaining. It substitutes a more scientific approach for the old method of "muddling through." Furthermore, it enables the worker to get an insight into the machinery of industrial productivity and by linking management and labor together may provide for a peaceful transition of ownership.

**PRESIDENT WOLL URGES COOPERATION TO IMPROVE INDUSTRY.**

American Photo-engraver, January, 1927, v. 19, pp. 100-103.

**TRADE-UNION CONFERENCE ON ELIMINATION OF WASTE IN INDUSTRY HELD IN PHILADELPHIA, PA., April 9-10, 1927.** Published by American Federation of Labor [1927]. 69 pp.

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Summary in Journal of Electrical Workers and Operators, May, 1927, pp. 227-229, 277; Monthly Labor Review, July, 1927, pp. 41-43; Survey, May 15, 1927, pp. 210, 211; Personnel Journal, August, 1927, pp. 145-147.

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The chapter on "Labor cooperates with capital" in part 2 includes brief discussion of union-management cooperation.

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Educational training for industry.

American Photo-engraver, February, 1927, v. 19, pp. 195-198.

Address at annual meeting of the American Society of Mechanical Engineers in New York City, December 6-9, 1926.

Includes brief discussion of cooperation between management and men to increase efficiency in production.

— Educational training for industry.

American Pressman, March, 1927, v. 37, No. 4, pp. 32, 33.

— Industrial relationship. Capital and labor must cooperate.

American Photo-engraver, August, 1927, v. 19, pp. 903-910.

Address to the convention of the International Photo-Engravers' Union held at Washington, July 14-16, 1927.

— Labor's viewpoint.

(*In* Y. M. C. A. Human relations in industry, ninth annual conference, Silver Bay, N. Y., 1926, pp. 88-94.)

Includes brief statement regarding union-management cooperation.

## WORKER SUBSTITUTES FOR OWNER.

New Republic, August 4, 1926, v. 47, pp. 295, 296.

Editorial discussing the suggestion that in union-management cooperation may possibly be found a substitute for the old profit-initiative stimulus supposed by tradition to be furnished by the owner but now lost in the wide distribution of stockholdings.

## WRIGHT, CHESTER M.

Labor tells how it wants to help management.

Printers' Ink, November 18, 1926, v. 137, p. 109+.

## Union-Management Cooperation on the Railroads

AMERICAN FEDERATION OF LABOR. *Railway Employees' Department.*

The cooperative policy of the Railway Employees' Department, A. F. of L. Federated Shop Crafts. [Chicago, 1926?] 35 pp.

CONTENTS.—Pt. I. Introductory statement by the Executive Council.—Pt. II. The cooperative policy of the Federated Shop Crafts.—Pt. III. Some important aspects of the cooperative policy.—Pt. IV. Methods as well as policy.

Address of Otto S. Beyer, Jr., at the seventh biennial convention, Railway Employees' Department, A. F. of L., June 29, 1926, pp. 21-35.

— Official proceedings, seventh convention Railway Employees' Department, American Federation of Labor, June 28 to July 2, 1926. Chicago.

Contains (pp. 69-74) history of the union-management cooperative program on the Baltimore & Ohio, the text of memorandum agreement entered into, statement of principles of cooperation, procedure to be followed by local cooperative committees, and a brief review of results of the cooperative plan.

## THE BALTIMORE &amp; OHIO COOPERATIVE PLAN.

Editorial Research Reports, May 4, 1925, pp. 236-252.

## BELDEN, ROBERT.

The B. and O. cooperative plan.

Manufacturers' News, May 23, 1925, v. 27, No. 21, pp. 14, 16.

## BEYER, OTTO S., Jr.

B. & O. engine 1003.

Survey Graphic, January 1, 1924, v. 51, pp. 311-317.

B. & O. engine 1003 was the first locomotive to be reconstructed under the union-management cooperative plan. In this article the engineer retained by the shop crafts to guide the development of the new plan tells how it was put into effect in the Glenwood shop at Pittsburgh and the results so far achieved. In the view of this writer, these results justify a belief that the trade-union movement, given constructive industrial functions in addition to its present humanitarian functions, will measure up to its enlarged responsibilities.

— Economic functions of the organized labor movement. Union and management cooperation in the railroad industry.

Canadian Congress Journal, August, 1924, v. 3, No. 8, pp. 9-12.

Includes brief statement of cooperation between railroad management and the unions on the B. & O. and C. N. R.

— Management and labor cooperation on the railroads. A description and detailed discussion of the "B. & O. plan."

Industrial Management, May, 1927, v. 73, pp. 264-270.

Summary in Monthly Labor Review, July, 1927, v. 25, pp. 30-33.

**BEYER, OTTO S., Jr.** Organized labor's cooperation with railroad management. (*In* National Conference of Social Work. Proceedings, 1925, pp. 307-310.)

This paper at the session devoted to a discussion of new developments in industrial relations describes the program of systematic cooperation which has been worked out between the organized shopcrafts and the Baltimore & Ohio, Canadian National, Chicago & North Western, and the Chesapeake & Ohio Railroads as based on four principles: (1) Acceptance by management of the standard shopcraft unions as constructive and helpful in running of the railroad; (2) Systematic cooperation with these unions for improved service to the patrons of the railroads; (3) Stabilization of employment; (4) Sharing fairly the gains of cooperation between the railroad, its employees and the public which they both serve. Only from two sources is hostility to the policy of the shopcrafts' cooperation with management being experienced. One is found among those railroad officers who still deny the right of workers to organize; the other is in members of the radical wing of the labor movement who criticize the new extension of collective bargaining as "class collaboration."

— Railroad union-management cooperation.

American Federationist, August, 1925, v. 32, pp. 645-653.

Describes the structure of the unions and the railroad shop administration where union-management cooperation is in effect with a detailed description of the machinery of cooperation.

— Three years of the "B. and O. Plan."

New Republic, August 4, 1926, v. 47, pp. 298-300.

"When the Glenwood experiment was first inaugurated the purpose of the cooperative program was rather general—cooperation for mutual benefit. As the program developed in the three years of its existence, its immediate objectives became more specific \* \* \* reductions in grievances, increased sense of responsibility on the part of employees for the success of the railroad, and on the part of management for the welfare of the employees, improvements in methods of employee training, better conditions of employment in respect to working facilities, sanitation, lighting and safety, conservation of material, increased output, improved quality of workmanship, recruiting of new employees, stabilizing employment and finally financial participation by the employees in the gains due to cooperation."

The article traces briefly the progress made towards the accomplishment of these objectives and calls attention to the importance to the public of the newly developed ability of the unions to set standards for management. *See also* editorial in same issue (p. 295) entitled "Worker substitutes for owner."

— The technique of cooperation.

Bulletin of the Taylor Society, February, 1926, v. 11, pp. 7-20.

Discusses the basic requirements for effective union-management cooperation and describes in detail the machinery of cooperation and typical problems met by union-management cooperation. For editorial critical of views expressed on standard *v.* company unions see Railway Age, February 13, 1926, pp. 415, 416. Reply by O. S. Beyer in same journal, February 27, 1926, p. 513, and by Sumner H. Slichter, March 6, 1926, pp. 573, 574.

**CHALMERS, W. E.**

Two types of railroad unions—Pennsylvania System company union compared with B. & O. cooperative plan.

Machinists' Monthly Journal (International Association of Machinists), April, 1926, v. 38, pp. 147, 148, 191.

**COLLECTIVE MANAGEMENT WORKS WELL AT PITTSBURGH.**

Electric Railway Journal, December 4, 1926, v. 68, pp. 1007, 1008.

**CONLON, PETER J.**

The Glenwood plan in the railroad shops: cooperation in industry.

(*In* Second Catholic Conference on Industrial Problems, 1924, pp. 59-67.)

By the vice president of the International Association of Machinists.

**COOPERATION IN THE BALTIMORE & OHIO RAILROAD SHOPS.**

Monthly Labor Review, May, 1924, v. 18, pp. 1058-1061.

**THE COOPERATIVE PLAN.** C. N. R. shopmen begin to enjoy fruits of cooperation.

Canadian Congress Journal, October, 1925, v. 4, No. 10, pp. 17, 18.

From the Federated Railwayman.

**THE COOPERATIVE PROGRAMME ON THE CANADIAN NATIONAL.**

Canadian Congress Journal, February, 1925, v. 4, No. 2, pp. 20-22.

From the Federated Railwayman.

Discusses particularly the handling of grievances and the stabilization of employment.

**CORBETT, JOSEPH.**

Union-management cooperation on the Canadian National Railways.

American Federationist, March, 1927, v. 34, pp. 311-314.

By the general chairman, Brotherhood of Railway Carmen of America.

**CULLUM, FRED J.**

Union-management cooperation at Stratford.

American Federationist, February, 1927, v. 34, pp. 171-177.

A description of the working of the union-management committee in the Stratford motive-power shop on the Canadian National Railways, by a trade-unionist who participated in the development of the plan. For successful cooperation he states that "the feeling that must be dominant is, that you are all working to the same end, whoever you may represent, and that end is the accomplishment of work by the most efficient, easiest, safest, and prompt method consistent with the least wastage of material, time, or labor."



FULLERTON, C. N.

Apprentice training on the Baltimore & Ohio.

American Federationist, August, 1927, v. 34, pp. 937-945.

The method of apprentice training is included in the cooperative agreement between the railroad and the Federated Shop Crafts.

GREAT BRITAIN. *Ministry of Labor.*

Report of the delegation appointed to study industrial conditions in Canada and the United States of America. London, H. M. Stationery Office, 1927. 117 pp. (Cmd. 2833.)

An appendix (pp. 61-63) (discusses schemes of union-management cooperation on the railroads.

INDUSTRIAL RELATIONS ON CANADIAN NATIONAL RAILWAYS.

Bloomfield's Labor Digest, March 20, 1926, v. 20, pp. 3415-3417.

INTERNATIONAL ASSOCIATION OF MACHINISTS.

Proceedings of the Seventeenth convention, Detroit, Michigan, September 15-17, 1924. [Washington, D. C., 1924.]

Resolutions introduced by lodges opposed to B. & O. plan, pp. 233, 234; Majority and minority reports of committee to investigate plan, pp. 234, 235; discussion (including statement by President Johnston), pp. 235-245.

JEWELL, BERT M.

A cooperative committee in action.

American Federationist, January, 1927, v. 34, pp. 26-32.

A description of the working of the cooperative committee in the locomotive repair shops of the Canadian National Railways at Stratford, Ont.

Issued also as a reprint by the American Federation of Labor.

— Recent extension of collective bargaining—cooperation—in the railroad industry.

American Federationist, July, 1925, v. 32, pp. 525-533.

An account of the beginnings of the union-management cooperative movement on the Baltimore & Ohio, first in the shops at Glenwood, Pittsburgh, and then its extension to all shops on the line and later to the Chesapeake & Ohio and the Chicago & North Western.

— Union-management cooperation \* \* \*. Labor's appraisal of principles, methods, and results of union-management cooperation in the railroad industry. American Photo-engraver, August-September, 1926, v. 18, pp. 668-671, 745-747.

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Can brotherhoods and management work together? The maintenance-of-way organization submits a plan for joint solution of mutual problems.

Railway Age, March 6, 1926, v. 80, pp. 581-583.

See also Editorial in same issue, pp. 571, 572.

RESULTS OF COOPERATION OF WORKERS AND MANAGEMENT ON RAILROADS.

Monthly Labor Review, July, 1927, v. 24, pp. 30-33.

Summary of articles in Industrial Management for May, 1927, by Daniel Willard and Otto S. Beyer, Jr.

ROBERTS, JOHN.

Canadian National Railways cooperative plan. New York, American Management Association, 1926. 8 pp. (American Management Association. Production Executives' Series, No. 34.)

Description by the general supervisor of work methods of the machinery for cooperation on the C. N. R. and the benefits of the system.

SNOW, FRANKLIN.

Substantial progress in cooperation: employees and managements working together to their mutual interests under several different plans.

Railway Age, June 5, 1926, v. 80, pp. 1485-1488.

SOULE, GEORGE.

A trade-union's achievement in improving service and eliminating waste.

(In Eighth Annual New York State Industrial Conference. Proceedings, 1924, pp. 85-89.)

On the Baltimore & Ohio system.

THORNTON, Sir HENRY WORTH.

Management's appraisal of principles, methods and results.

Bulletin of the Taylor Society, February, 1926, v. 11, pp. 26-29.

By the chairman of the board of directors and president of the Canadian National Railways. "We are definitely and irrevocably committed to the principle of cooperation with our employees."

UNION-MANAGEMENT COOPERATION IN RAILROADING: Recent survey of its operation on the Baltimore & Ohio railroad.

Law and Labor, September, 1925, v. 7. pp. 239-242.

UNION-MANAGEMENT COOPERATION IN THE RAILWAY INDUSTRY: A case presentation of effort toward stabilization. I. The technique of cooperation, by Otto S. Beyer, Jr. II. Labor's appraisal of principles, methods and results, by Bert M. Jewell. III. Management's appraisal of principles, methods and results, by Sir Henry Worth Thornton.

Bulletin of the Taylor Society, February, 1926, v. 11, pp. 6-29.

Comments on the addresses by Sumner H. Slichter, Henry Bruère, Francis Lee Stuart, pp. 3-5. Abstracts in the Railway Age, February 13, 1926, v. 80, pp. 425-428. See also editorial in same issue, pp. 415, 416, and reply by O. S. Beyer in issue of February 27, 1926, p. 513 and by Sumner H. Slichter in issue of March 6, 1926, pp. 573, 574.

UNION MANAGEMENT COOPERATION. Recent extension of collective bargaining, by Bert M. Jewell \* \* \* and Railroad union-management cooperation, by O. S. Beyer, Jr. \* \* \* Washington, D. C., American Federation of Labor, 1925. 17 pp.

Reprint of articles from the July and August, 1925, numbers of the American Federationist.

UNIONIZATION AND EMPLOYEE REPRESENTATION IN COMPETITION.

Law and Labor, September, 1924, v. 6, pp. 253-255.

WARFIELD, M. S.

Pullman conductors try cooperation.

American Federationist, March, 1927, v. 34, pp. 308-310.

By the president of the Order of Sleeping Car Conductors.

WILLARD, DANIEL.

The labor policy of the Baltimore & Ohio.

Railway Age, November 8, 1924, v. 77, pp. 839-841.

— The new executive viewpoint on labor relations: What the "B. & O. plan" has done in actual practice.

Industrial Management, May, 1927, v. 73, pp. 260-263.

Address before the National Civic Federation, New York City, February 17, 1927, by the president of the Baltimore & Ohio Railroad. The general results are summed up as having been "eminently satisfactory up to date."

Same in American Photo-engraver, v. 19, pp. 528-533. Summary in Monthly Labor Review, July, 1927, v. 25, pp. 30-33.

WOLL, MATTHEW.

Production and managerial problems.

American Photo-engraver, May, 1927, v. 19, pp. 525-528.

Remarks as chairman at a luncheon conference called by the Industrial Relations Department of the National Civic Federation to discuss the Baltimore & Ohio Railroad union-management plan.

## Union-Management Cooperation in Other Industries

BERRY, GEORGE L.

Printing pressmen's engineering department.

American Federationist, August, 1925, v. 32, pp. 658, 659.

The engineering department of the International Printing Pressmen's Union examines daily more than 500 newspapers and if defects appear in successive issues these are called to the attention of the superintendent of printing and publisher of the paper, with a remedy suggested. In case of long-continued defects, or upon request, an engineer is sent to the city where the newspaper is published to confer with the foreman.

BURROWS, W. G.

Cooperation means success.

American Pressman, December, 1926, v. 37, pp. 34, 35.

COMSTOCK, LOUIS K.

Peace basis in the electrical industrial field.

Journal of Electrical Workers, February, 1926, v. 25, pp. 54, 55, 96.

— Council on industrial relations in the electrical construction industry.

(In Eighth Annual New York State Industrial Conference. Proceedings, 1924, pp. 38-46.)

CONSTITUTIONAL GOVERNMENT IN INDUSTRY. A study of the principles guiding union-management relationship under the impartial arbitration machinery in the men's clothing industry in Chicago.

Advance, January 28, 1927, p. 4; February 4, 1927, p. 4; February 11, 1927, p. 4; February 28, 1927, p. 7; March 4, 1927, p. 4.

- FORD, CHARLES P.  
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On the work of the National Council on Industrial Relations for the Electrical Construction Industry, made up of 5 members from the employers and 5 from the union.
- GARY, DOROTHY P.  
Management as a function of unionism.  
*World To-morrow*, August, 1925, v. 8, pp. 235-237.  
With reference to the men's clothing industry.
- GEIGES, GUSTAVE.  
Full-fashioned hosiery industry.  
*American Federationist*, June, 1927, v. 34, pp. 668-675.  
In this article the president and business representative of the Philadelphia branch of the American Federation of Full Fashioned Hosiery Workers discusses some of the technical problems of the industry, why they are of concern to the organized workers, and the efforts being made to solve them in firms which cooperate with the union. Printed also in *Bulletin of the Taylor Society*, June, 1927, v. 12, pp. 410-415.
- HABER, WILLIAM G.  
Craftsmanship in building.  
*American Federationist*, December, 1926, v. 33, pp. 1446-1451.  
Issued also as a reprint.
- HALL, TOBIAS.  
Workers' concern in management.  
*American Federationist*, June, 1927, v. 34, pp. 679-681.  
Describes the way the Upholstery Weavers' Union of Philadelphia is trying to solve some of the problems of shop efficiency.
- KASTEN, FRANK.  
Union cooperation in clay industry.  
*American Federationist*, January, 1927, v. 34, pp. 36-38.  
By the general president of the United Brick and Clay Workers of America.
- KOHN, WILLIAM.  
Cooperation as we practice it.  
*American Federationist*, December, 1926, v. 33, pp. 1452-1456.  
By the president of the Upholsterers' International Union of North America. Issued also as a reprint.
- LEVINE, LOUIS.  
The Women's Garment Workers. A history of the International Ladies' Garment Workers' Union. New York, B. W. Huebsch, (Inc.), 1924. 608 pp.  
"The Cleveland experiment," pp. 360-381.
- MCGRADY, EDWARD F.  
Greater service to workers and to industry.  
*American Federationist*, August, 1926, v. 33, pp. 923-925.  
Describes the service which the International Printing Pressmen's and Assistants' Union gives to the employers who have contractual relations with the organization.
- [MCGARRIGLE, FRANK.]  
Union cooperation to eliminate waste.  
*American Federationist*, June, 1927, v. 34, pp. 682, 683.  
This paper on the tapestry carpet weaving industry was erroneously credited to Robert Lawrie.
- McHUGH, WILLIAM H.  
Pressmen's engineering service.  
*American Federationist*, June, 1927, v. 34, pp. 676-678.  
A description of the free engineering service maintained by the International Printing Pressmen and Assistants' Union to aid unionized newspapers in the United States to eliminate waste and advance the technical quality of their publications.
- NORTHCOTT, CLARENCE H.  
Some British instances of cooperation with labor.  
*American Federationist*, May, 1927, v. 34, pp. 562-566.  
Particularly at Rowntree Cocoa Works, York, England.
- O'BRIEN, SIMON P.  
Longshoremen stabilize their jobs.  
*American Federationist*, May, 1927, v. 34, pp. 573, 574.
- PRESSMEN'S PRODUCTION SERVICE.  
*American Federationist*, February, 1926, v. 33, pp. 182-184.

# PUBLICATIONS RELATING TO LABOR

## Official—United States

CALIFORNIA.—Bureau of Children's Aid, and Department of Public Welfare. *California laws relating to women and children. Sacramento, 1926. 282 pp.*

ILLINOIS.—Department of Mines and Minerals. *Forty-fifth coal report of Illinois, 1926. Springfield, 1927. 277 pp.*

Data on coal-mine accidents, taken from this report, are given on page 60 of this issue.

INDIANA.—Industrial Board. *Proceedings of the second State-wide industrial safety conference, Indianapolis, December 7-9, 1926. Indianapolis [1927?]. 137 pp.*

— — — *Year book of the State of Indiana for the year 1926. Indianapolis, 1926. vi, 1184 pp.*

Includes the reports of the Industrial Board and the Department of Mines and Mining, of Indiana. The report of the latter office contains data on fatal coal-mine accidents, 1898 to 1926, and also on production of coal, number of employees, and wages paid in specified coal mines of the State in the fiscal year ending September 30, 1926. Data on accidents in various industries, taken from the report of the Industrial Board, were published in the September, 1927, Labor Review (p. 56).

KENTUCKY.—Department of Labor. Bureau of Agriculture, Labor, and Statistics. *Bulletin 31: Industrial housekeeping, with suggestions. Frankfort [1927?]. 295 pp., illustrated.*

A compilation of articles on good housekeeping as applied to industrial plants, including suggestions for ventilation; illumination (with lighting code); combating the hazards from dust, fumes and gases, and heat; sanitation; seats for workers; and safety. There is an article on the general development of workmen's compensation acts with special reference to the Kentucky law. The concluding section gives excerpts from Kentucky laws relating to the employment of labor.

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.*

— — — Division of Minimum Wage. *Report for the year ending November 30, 1926. Boston [1927?]. 12 pp.*

Reviewed on page 33 of this issue.

OHIO.—Industrial Commission. Division of Safety and Hygiene. *Special Bulletin No. 1: Statistical reports of injuries to minors under 18 years of age, occupational disease claims, additional award claims. Columbus, 1927. 139 pp., charts.*

Summaries of the sections of this report covering injuries to minors and occupational diseases are given on page 61 of this issue.

OKLAHOMA.—Industrial Commission. *Eleventh annual report, September 1, 1925, to August 31, 1926. Oklahoma City [1926?]. 263 pp.; folder.*

A summary of the workmen's compensation data contained in this report is given on page 66 of this issue.

TENNESSEE.—Department of Labor. Division of Mines. *Thirty-second annual report of the mineral resources of Tennessee*. Nashville, 1927. 180 pp., illus.

Data on mine accidents, taken from this report, are given on page 63 of this issue.

WASHINGTON.—[Department of Labor and Industries?] *Compilation of insurance and medical aid acts administered by Department of Labor and Industries, 1927*. Olympia, 1927. 51 pp.

WISCONSIN.—Commissioner of Banking. *Thirty-second annual report on State banks, mutual savings banks and trust companies of Wisconsin, showing [their] condition at the close of business, December 31, 1926*. Madison, 1927. 155 pp.

Data include 7 mutual savings banks, 2 credit unions, and 171 building and loan associations.

UNITED STATES.—Department of Commerce. Bureau of Foreign and Domestic Commerce. *Commerce yearbook, 1926*. Vol. I—United States. Washington, 1927. xx, 676 pp., charts.

The fifth issue of the Commerce Yearbook is being published in two volumes, the one noted here being volume 1 and covering the United States. It gives detailed information on business and industrial conditions during 1926 with comparative data for earlier years. The statistics include wages and hours of labor, employment, prices and cost of living, production, immigration and emigration, and the shift in occupations (1880-1920). Some of the data on increase in production are reproduced on page 25 of this issue.

——— *Trade information bulletin No. 493: Parana pine lumber industry of Brazil*, by Joseph C. Kircher. Washington, June, 1927. 17 pp.

This report contains a short account of the labor supply and wages paid in the Parana pine lumber industry of Brazil. Wages for common labor vary from 4 to 6 milreis (50 to 75 cents) per 9-hour day, while the more skilled workers receive up to 12 milreis (\$1.50) per day. Minors are paid from 1½ to 3 milreis (20 to 40 cents) per day.

As regards their nationality, the report states that many of the workers are recent immigrants from Poland, Italy, Portugal, and Germany.

There is a great scarcity of filers, sawyers, and foremen for large operations and one company has been compelled to bring men from the United States to fill the jobs. These men are paid in American money and receive approximately the same rates or a little higher than at home. If they stay for a period of two years they are given their expenses to Brazil and return and one-half time while traveling.

——— Bureau of Mines. *Bulletin 272: Safeguarding workmen at oil derricks*, by H. C. Miller. Washington, 1927. vi, 111 pp., illustrations, diagrams.

This report states that progress toward safety has been especially rapid in the improvement of derrick construction and in methods of safeguarding those whose duties take them into derricks. Aside from the constant danger of workmen falling and of exposure to machinery hazards, and the risk of being struck by tools or materials dropped from above, a most serious aspect of the derrick hazard, fortunately of rather infrequent occurrence, is its partial or total collapse due to improper design, faulty materials and construction, deterioration through age and vibration, and softening of the ground under the derrick footings by water. However, the report points out how workmen may be safeguarded in spite of these dangers, and includes many illustrations and diagrams.

——— *Bulletin 273: Drilling and blasting in open-cut copper mines*, by E. D. Gardner. Washington, 1927. v, 98 pp., diagrams, illustrations.

Describes the drilling and blasting methods in use in certain mines in Arizona, Nevada, New Mexico, and Utah where the open-cut mining of copper ores prevails. Wage data from this report will be found on page 129 of this issue.

UNITED STATES.—Department of Commerce. Bureau of Mines. *Bulletin 286: Quarry accidents in the United States, 1925, by William W. Adams. Washington, 1927. v, 98 pp.*

Reviewed on page 53 of this issue.

— Department of Labor. Bureau of Labor Statistics. *Bulletin No. 440: Wholesale prices, 1890 to 1926. Washington, 1927. v, 256 pp., charts.*

Current wholesale price index numbers bringing up to date the most important information given in this bulletin are published each month in the Labor Review; wholesale prices of individual commodities are published in the second month of each quarter; and in the third month of each quarter, wholesale price index numbers for the United States and foreign countries are given.

— — — *Bulletin No. 448: Trade agreements, 1926. Washington, 1927. iv, 204 pp.*

Discussed briefly on page 209 of this issue.

— — — *Bulletin No. 449: Building permits in the principal cities of the United States in 1926. Washington, 1927. iii, 129 pp.*

An advance summary of the complete survey of building permits for 1926 was published in the Labor Review for May, 1927 (pp. 85-101). Special studies on the trend toward apartment-house living in American cities and on per capita expenditure for nonresidential buildings in representative cities, based on the data contained in this bulletin, were published in the Labor Review for June, 1927 (pp. 1-18), and July, 1927 (pp. 17-19), respectively.

— — — Children's Bureau. *Publication No. 177: The Children's Bureau of Cleveland. A study of the care of dependent children in Cleveland, Ohio, by Mary Mather Leete. Washington, 1927. v, 98 pp.*

— — — Women's Bureau. *Bulletin No. 60: Industrial accidents to women in New Jersey, Ohio, and Wisconsin. Washington, 1927. vii, 316 pp.*

Reviewed on page 56 of this issue.

— Department of the Interior. Bureau of Education. *Bulletin, 1927, No. 6: Work of the Bureau of Education for the natives of Alaska, by William Hamilton. Washington, 1927. 5 pp. (Advance sheets from the Biennial Survey of Education, 1924-1926.)*

Reviewed on page 76 of this issue.

### Official—Foreign Countries

AUSTRALIA.—Court of Conciliation and Arbitration. *Commonwealth arbitration reports, vol. 23: A report of cases decided and awards made in the Commonwealth Court of Conciliation and Arbitration, including conferences convened by the president and deputy presidents, January 1, 1926, to July 19, 1926. Melbourne, 1926. xxxiii, 940 pp.*

— (VICTORIA).—Government Statist. *Victorian year-book, 1925-26. Melbourne, 1927. vi, 647 pp., maps.*

This yearbook contains data on labor conditions in factories and shops, wages, employment, child labor, industrial accidents, workmen's compensation, invalid and old-age pensions and maternity allowances, the work of various relief funds, friendly societies, and the Working Men's College at Melbourne.

BELGIUM.—Ministère de l'Intérieur et de l'Hygiène. *Annuaire statistique de la Belgique et du Congo Belge, 1924-25. Tome I. Brussels, 1927. [Various paging.]*

Volume contains data on wages in Belgian coal mines from 1920 to 1925, industrial accidents, strikes, lockouts, number of workers employed in various industries, social insurance, cooperation, etc.

BULGARIA.—Direction Générale de la Statistique. *Statistique des coopératives dans le Royaume de Bulgarie pendant l'année 1923. Sofia, 1927. 133 pp.*

Entirely statistical, the tables giving detailed data (in both Bulgarian and French) concerning the various types of cooperative societies in Bulgaria. On

December 31, 1923, there were 3,409 cooperative societies of all kinds, of which 1,812 furnished reports. These had 336,506 members.

CANADA.—Bureau of Statistics. Internal Trade Branch. *Prices and price indexes, 1913-1926*. Ottawa, 1927. 170 pp.

The volume includes statistics of domestic and foreign wholesale and retail prices, security prices, exchange rates, prices of services (gas, electricity, telephone, and street car), and import and export valuations. In some cases data are given for as far back as 1890.

INTERNATIONAL LABOR OFFICE.—*Studies and reports, series D (wages and hours of work), No. 17: Minimum wage-fixing machinery—an international study of legislation and practice*. Geneva, 1927. 155 pp.

This study was first published for use at the tenth session of the International Labor Conference, the subject forming Item II of the agenda of the conference. A brief notice of the report was published in the June, 1927, Labor Review (p. 228). The International Labor Office has now published it as one of its series of Studies and Reports. The information contained in the previous report has been reprinted with a few alterations of detail and with the addition of a supplement giving summaries of minimum wage legislation in Norway, Czechoslovakia, Hungary, and Spain, these countries having been omitted from the original report for lack of data.

NORWAY.—[Departementet for Sociale Saker.] Statistiske Centralbyrå. *Arbeidslønnen i jordbruket, 1926-27*. Oslo, 1927. [4], 15 pp. *Norges offisielle statistikk VIII*, 33.

This report presents wages of agricultural workers in Norway in 1926-27, with comparative figures for earlier years.

POLAND.—Ministère du Travail et de l'Assistance Sociale. *Bibliothèque de l'inspection du travail, VI: L'inspection du travail en 1925*. Warsaw, 1927. cxviii, 337 pp.

Among the various sections in this report is a résumé of factory inspection in Poland in 1925, which is preceded by a brief review of the economic situation of the country in that year.

— Office Central de Statistique. *Statistique de la Pologne, Tome XIII, Fascicule 2: Le premier recensement général de la République polonaise du Septembre 30, 1921. Bâtiments. Tableaux*. Warsaw, 1926. vii, 79 pp.

The results of the building census in Poland are presented in 3 tables, the first, for the country as a whole, including both urban and rural localities. The other two tables are confined to towns.

— — *Statistique de la Pologne, Tome XVII: Le premier recensement général de la République polonaise du Septembre 30, 1921. Logements, population, professions*. Département de Kielce. Warsaw, 1927. xvi, 303 pp.

The complete publication of the results of the first census of the Republic of Poland will include 14 volumes. Volume XVII, listed above, contains statistics on occupied dwellings, the resident population, and the number of persons engaged in various gainful occupations.

### Unofficial

ASSOCIATION OF RAILWAY EXECUTIVES. Committee on Stabilization of Employment. *Stabilization of employment on the railroads*. Washington, 1927. 9 pp., chart.

AVRAM, MOÏS H. *The rayon industry*. New York, D. Van Nostrand Co., 1927. xxi, 622 pp., illustrations, diagrams.

This book presents detailed discussions of all the factors entering into the production of rayon. It states that the labor cost of producing a pound of rayon is from 48 to 60 cents.

BEMAN, LAMAR T., Compiler. *Selected articles on old-age pensions.* New York, H. W. Wilson Co., 1927. lxxii, 359 pp. (The handbook series, Series II, vol. 1.)

One of the handbook series published by this company, which is arranged with a view to the "special need of librarians, high-school debating leagues, and others who want reliable information in condensed form." This volume on old-age pensions contains general discussions of old-age pensions in this country and abroad, and arguments for and against a noncontributory old-age pension law. Briefs and a bibliography are included.

BOGART, ERNEST L., and LANDON, CHARLES E. *Modern industry.* New York, Longmans, Green & Co., 1927. x, 593 pp., maps, illustrations, diagrams.

A descriptive account of the various productive activities of modern economic life, and the relations of the various parts to each other.

CONGRESS OF AMERICAN INDUSTRY. *Discussions by leading authorities as presented at the Congress of American Industry, held in Philadelphia, September 7 to 27, 1926.* Philadelphia, 1926. 276 pp., illustrations, charts.

Included among the addresses at this conference, and reproduced in this volume of the proceedings, were the following: The employee—his responsibilities, by Secretary of Labor James J. Davis; The employer—his responsibilities, by Charles Piez; Labor, by William Green; Industrial associations, by John E. Edgerton; Industrial management, by Henry S. Dennison; and Human relationships, by Thomas E. Mitten.

CONNECTICUT ACADEMY OF ARTS AND SCIENCES. *Transactions, Vol. 28, pp. 79-235: The distribution of industrial occupations in England, 1841-1861, by Clive Day.* New Haven, March, 1927.

CUSHMAN, FRANK. *Foremanship and supervision: A practical handbook for foreman conference leaders and supervisors of vocational education.* New York, John Wiley & Sons (Inc.), 1927. xvii, 238 pp., charts, illustration.

FAIRCHILD, HENRY PRATT, Editor. *Immigrant backgrounds.* New York, John Wiley & Sons (Inc.), 1927. x, 269 pp.

A series of monographs, by various authors, dealing with the racial, cultural, and social characteristics of the peoples which have contributed most heavily to immigration into the United States.

GILLESPIE, FRANCES ELMA. *Labor and politics in England, 1850-1867.* Durham, N. C., Duke University Press, 1927. vii, 319 pp.

INQUIRY, THE. *The worker and his job: Outlines for the use of workers' groups.* New York, 129 East 52d Street, 1927. 65 pp.

These study outlines were prepared for use in small classes or clubs of workers meeting under the auspices of trade-unions, shops, community houses, associations, or churches, in the consideration of problems that arise in connection with their everyday working relations.

LABOR YEAR BOOK, 1927. *Issued by the general council of the Trades Union Congress and the national executive of the Labor Party.* London, Labor Publications Department, 32-34 Eccleston Square, 1927. xl, 507 pp.

This issue of the Labor Yearbook contains the usual data on the activities of various organizations affiliated to the Trades Union Congress and the Labor Party in Great Britain in 1926-27; a brief survey of the activities of Parliament in 1926; the text of the trade disputes and trade-unions bill, with action taken on it by labor organizations and by the Government; text and discussion of the agreement between the Labor Party and the Cooperative Party; and considerable data on wages and hours, unemployment, industrial disputes, industrial accidents, trade boards, trade-unions, cost of living, poor relief, etc., and international labor matters. Directories of British and of international labor bodies and publications are included.



LIPPINCOTT, ISAAC, AND TUCKER, H. R. *Economic and social history of the United States*. New York, D. Appleton & Co., 1927. xxiii, 635 pp., maps, illustrations.

This book, intended as a school textbook, stresses the social and economic development of the Nation, at the same time presenting the leading political issues. It is divided into three parts: I, Colonial times; II, The founding of a nation, 1789-1860; and III, The growth of national power, 1860 to the present. Each part contains sections on labor conditions.

LOWRY, S. M., MAYNARD, H. B., AND STEGEMERTEN, G. J. *Time and motion study and formulas for wage incentives*. New York, McGraw-Hill Book Co. (Inc.), 1927. xiv, 377 pp., charts, illustrations.

METROPOLITAN LIFE INSURANCE Co. Policyholders Service Bureau. *Labor turnover series No. 2: The exit interview*. New York [1927?]. 21 pp.

Reviewed on page 19 of this issue.

NATIONAL ASSOCIATION OF LEGAL AID ORGANIZATIONS. *Record of proceedings at the fourth annual meeting, held at New York City, April 7 and 8, 1926*. [Boston, 1927?] 273 pp.

NATIONAL INDUSTRIAL CONFERENCE BOARD (INC.). *Minimum wage legislation in Massachusetts*. New York, 247 Park Avenue, 1927. xiii, 243 pp., charts.

This volume presents a study of the structure and administration of the minimum wage law for women in Massachusetts. Its conclusions are that "although the wages of some women in Massachusetts industries have been raised since 1914 through the operation of the minimum wage law, the general level of wages in these occupations is just about where it would have been had there been no wage law. Judged by the experience in Massachusetts, no matter how liberal the standards, an impartial evaluation of results can produce very little in favor of recommendatory minimum wage legislation for women."

— *The workmen's compensation problem in New York State*. New York, 247 Park Avenue, 1927. xx, 375 pp., charts.

This volume contains a study of the workmen's compensation law of New York and its development and operation, comparison with the compensation laws of other States, attitude of the courts toward its interpretation and administration, and its cost to the State.

NATIONAL INSTITUTE OF INDUSTRIAL PSYCHOLOGY. *Institute report No. 1: Occupation analysis—the study of aptitudes and attainments necessary for success in different kinds of employment*. London W. C. 1, 329 High Holborn [1926?]. [4], 36 pp.

The first of a series of special reports describing an experiment in vocational guidance carried out in London.

OHIO STATE UNIVERSITY. Bureau of Business Research. *Monograph No. 8: Money-lending practices of building and loan associations in Ohio*, by H. Morton Bodfish. Columbus, 1927. vii, 84 pp., maps, charts.

RATHBONE, ELEANOR F. *The disinherited family—a plea for direct provision for the costs of child maintenance through family allowances*. London, George Allen & Unwin (Ltd.), 1927. xii, 345 pp. 3d ed.

In this latest edition Miss Rathbone has added a chapter on developments in the family-allowance movement in Great Britain and other countries since the first publication of her book in March, 1924.

RUSSELL SAGE FOUNDATION. Library. *Bulletin No. 84: Employment for the handicapped (supplementary list)*. New York, 130 East 22d Street, August, 1927. 4 pp. (Bibliography.)

SMITH, HOMER J. *Industrial education: Administration and supervision*. New York, Century Co., 1927. xx, 334 pp., maps, charts.

SOCIÉTÉ POUR L'ÉTUDE PRATIQUE DE LA PARTICIPATION DU PERSONNEL DANS LE BÉNÉFICES. *Bulletin de la participation aux bénéfices, 1926. Paris, 1926. 200 pp.*

The proceedings of the forty-seventh general assembly of the French Society for the Study of Profit Sharing and of the meetings of the administrative council held during 1926.

UNITED STATES LEAGUE OF LOCAL BUILDING AND LOAN ASSOCIATIONS. *Proceedings of the thirty-fourth annual meeting, held at Minneapolis, Minn., July 20-22, 1926. Cincinnati [1926?]. 333 pp.*

Data presented at this meeting, showing the status of the building and loan associations in 1924-25, were given in the March, 1927, issue of the Labor Review (p. 42).

— *Secretary's annual report relating to the building and loan associations in the United States, submitted to the 35th annual meeting at Asheville, N. C., July 19-22, 1927. Cincinnati [1927?]. 87 pp.*

Data from this report are given on page 70 of this issue.

VAN KLEECK, MARY. *Employment statistics and trade-unions. Washington, 1927. 7 pp. (Reprinted from the American Federationist, April, 1927.)*

WOODBURY, ROBERT MORSE. *Infant mortality and its causes, with an appendix on the trend of maternal mortality rates in the United States. Baltimore, Williams & Wilkins Co., 1926. x, 204 pp.*

— *Workers' health and safety—a statistical program. New York, Macmillan Co., 1927. xii, 207 pp. (Publication of Institute of Economics, Washington, D. C.)*

This book has been written, it is stated in the preface, in the belief that "statistics should be a means to an end and not an end in themselves and that end is the improvement of economic and social conditions," and the purpose of the author is to present a plan by which this mission of statistics may be accomplished, with special application to the field of accident and health statistics. This plan is the development of two thoughts, namely:

First, the abandonment of superfluous compilations and the introduction of such changes in methods and tabulations as can be made without any major reorganization of existing methods and procedure, and, second, recommendations for guiding the further development of statistics to meet present or future requirements.

The book is in two parts: Industrial accidents, and The workers' health, each part dealing with the problem presented, statistics needed, an appraisal of existing statistics, and a suggested program. There is a plea for governmental appropriations to make adequate statistical information available as a means of meeting the ever present problems of industrial safety and health—"the saving of life, the diminution of injuries, the decrease in disease, the promotion of health, and the elimination of the economic and social consequences of accidents and sickness."

