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U. S. DEPARTMENT OF LABOR  
JAMES J. DAVIS, Secretary  
BUREAU OF LABOR STATISTICS  
ETHELBERT STEWART, Commissioner

MONTHLY  
LABOR REVIEW

VOLUME XVII

NUMBER 4



OCTOBER, 1923

WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1923

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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# MONTHLY LABOR REVIEW

VOL. XVII—NO. 4

WASHINGTON

OCTOBER, 1923

## Expansion of the "Family-Wage" System in France and Belgium.<sup>1</sup>

By MARY T. WAGGAMAN.

AN EXAMINATION of certain foreign economic, industrial, and labor publications discloses a somewhat surprising amount of material on the subject of family allowances or supplementary wages (*allocations familiales* or *sursalaire*) sometimes termed "family wages" or "social wages." This material includes reports of national labor departments and also of committees and commissions of inquiry, representing respectively labor and industrial interests. Family allowances have also been the subject of resolutions or discussion at various important congresses, some under the auspices of employers' organizations and others called by federated trade-unions. This question was on the agenda of the third biennial congress of the International Federation of Working Women which was held near Vienna, Austria, August 14 to 18, 1923.

The striking progress abroad of the system of family allowances challenges attention not only because the new movement is apparently another turn in the evolution of social and industrial insurance but because of the very close correlation of these grants with wages. For despite the multiplied declarations that family allowances must be clearly differentiated from the worker's compensation for his labor, the new practice seems to point to potential changes in the manner of making wage adjustments and to suggest, though as yet obscurely, a solution to some of the most impenetrable wage problems. The following is a brief résumé regarding the expansion of the system in France and Belgium. The development of the movement in some other foreign countries will be covered in a forthcoming article.

### France.

THE development of the system of compensation funds in France for the payment of so-called "family wages" surpasses that of any other country, according to the director of the central committee for family allowances (*le comité central des allocations familiales*).

This new movement, he declares, is based on equity and meets a national need in the grave depopulation crisis when the average birth rate does not exceed 0.4 of a child per worker. He regards

<sup>1</sup> The data on which this article is based are from Life and Labor Bulletin (Chicago), July, 1923; La Journée Industrielle (Paris), issues of Dec. 31, 1922-Jan. 1, 1923, June 3-4, and Aug. 12-13, 1923; Comité Central Industriel de Belgique, Bulletin (Brussels), Sept. 20, 1922; MONTHLY LABOR REVIEW, issues of October, 1921, and July, 1923; Ministry of Labor Gazette (London), issues of March and August, 1923; Industrial and Labor Information (Geneva), issues of Jan. 20, Mar. 31, June 30, and July 7, 1922, Feb. 2, and 16, Mar. 2, and 29, May 11, and 25, June 29, July 6, Aug. 3, 10, and 24, 1923; Bulletin du Ministère du Travail (Paris), issues of October-November-December, 1921, and January-February-March, 1923; La Voix du Peuple (Paris), issues of January and February, 1923; Compt-rendu du deuxième Congrès de la Confédération Internationale des Syndicats Chrétiens, Innsbruck (Utrecht), June, 1922; Les Documents du Travail (Paris), June-July, 1923; Revue du Travail (Brussels), issues of June and December, 1922, and May, June, and July, 1923; La Femme Belge (Brussels), May, 1923.

the progress of the institution as an "eloquent manifestation of the vitality of a people" and an evidence of the "creative and generous spirit of the French employers." This generosity, however, is not without advantages to those who exercise it. In assisting the heads of families, employers encourage the recruiting of necessary manual labor and promote its stabilization. Moreover, some optimistic industrialists hope by contributing to the physical and mental development of the children of their workers to create a superior labor reserve for the future.

Attention was called in a previous article in the MONTHLY LABOR REVIEW of October, 1921 (pp. 9-19), to the considerable legislation relative to State family allowances, especially the law of July 14, 1913, and also to the fact that before the passage of the act of April 7, 1917, which instituted a system of family allocations applicable to all State administrations, numerous ministerial services had been accustomed to pay indemnities of this kind to certain classes of their employees.

A law was passed on July 22, 1923, providing an annual allowance of 90 francs (\$17.37, par) for each child under 13 years of age in excess of three children in French families. The allowance may be granted up to 16 years of age if the children are still in school, apprenticed, "invalided, or incurably ill." The departments or communes may increase these national grants from their own funds.

Even before the World War certain public agencies, large transportation companies, and important financial, industrial, and commercial establishments in France were also paying special allowances to the members of their personnel who had very young children or children who had not reached the working age. During the war the practice of granting these allowances was substantially extended, being taken up not only by additional individual employers but by groups of employers in the same industry or the same locality who formed compensation funds for the payment of these allocations. The Association of Metallurgists at Grenoble was a pioneer in establishing one of these compensation funds in 1916.

There are now 123 of these funds, which include a membership of over 7,600 undertakings. In addition, the system is being studied in various other industrial centers. It is estimated that 2,500,000 employees in France are entitled to benefit by family allocations through compensation funds or otherwise, and that the annual amount of such grants is over 300,000,000 francs (\$57,900,000, par).

#### Types of Funds.

There are two types of compensation funds: Regional or inter-professional, composed of chambers of commerce and federations of employers; and "corporative," organized according to industries.

M. Richmond at a conference held by the Paris Chamber of Commerce summarized from his point of view some of the advantages of the regional fund, declaring that funds of this character are to be preferred because:

1. The employers of a given locality or district have a community of interest in the recruiting of manual workers.
2. Birth rates are subject to regional influences.
3. Living costs vary by locality and not by occupation.



4. The general granting of allowances implies a certain measure of control which is effected more easily by a single fund in the same district.

5. It is expedient to stabilize these allowances as far as possible by making them independent of the fluctuations of single industries.

The compensation funds vary greatly in the number of their member establishments, some having as few adherents as 6 while two have more than 500 and one has over 1,200, according to the Bulletin du Ministère du Travail (Paris) for the last quarter of 1921.

There is at Tours a federation of small funds which has permitted the reinstitution of the workers' service book to which the labor unions have always been opposed. This book is now designated "le casier familial," and is used in connection with the granting of family allowances. In this book a record is kept, by means of tickets or stamps given by the employer to the worker, of the number of days he works. This book follows the employee when he changes from one firm to another and at the headquarters of the federation a duplicate is kept, daily up to date, of this service record.

The possibility of the abuse of such service books by employers who might wish to discriminate against militant unionists is pointed out in the recent report on family allowances which was made for the General Confederation of Labor and published in *La Voix du Peuple* (Paris) of January, 1923.

#### Functioning of Funds.

The compensation funds were created to equalize the distribution of expenses arising from the payment of family allocations or supplemental wages.

An article on family allowances abroad, in the British Ministry of Labor Gazette of March, 1923 (p. 86), gives the following three outstanding bases of calculating assessments for individual establishments belonging to French compensation funds:

1. On the number of workers employed by the firm.
2. On the number of man days or man hours worked.
3. On the aggregate wages paid.

It will be noted that, in order to avoid discrimination against married men, the contributions of adherent establishments are based on their personnel as a whole, aggregate man days or man hours worked, or total wages paid.

If a member establishment distributes more in allowances than the amount of its assessment such establishment gets a refund. If an adherent firm pays out less in these supplemental wages than the amount of its assessment, it must return the surplus to the fund. Members also assume their share of overhead expenses of the fund, according to the business activity of their establishments and the normal competitive conditions in the same district.

Among the methods of granting these allocations are the following:

- (1) Increased allowance for second and subsequent children.
- (2) Same allowance for each child.
- (3) No allowance for first child or for first two children but high allowances for subsequent ones.
- (4) Same (rather low) allowance for first two children, increased allowance for subsequent ones.
- (5) High allowance for first or first two and lower for subsequent children.

According to a detailed statistical table, based on 1920 and 1921 data and covering 61 funds, which was published in the Bulletin du Ministère du Travail (Paris) for the last quarter of 1921 (pp. 418-420) the family allowances paid ranged from 10 to 50 francs (\$1.93 to \$9.65, par) per month for the first child, from 5 to 75 francs (96.5 cents to \$14.48, par) for the second and third child, and from 5 to 100 francs (96.5 cents to \$19.30, par) for the fourth child. The age limit for allowances for children, according to the same report, was 13 or 14 years. In a few cases there was an age limit of 16 years for girls. The number of child beneficiaries of these 61 funds ranged from 150 for the Rouen (Port) fund to 68,096 for the Paris (région) fund.

A number of the family allocation funds also pay maternity benefits of from 100 to 250 francs (\$19.30 to \$48.25, par) and give nursing allowances or bonuses. For example, the Parisian intertrade and regional fund allows 30 francs (\$5.79, par) per month for 10 months for milk for an infant and 45 francs (\$8.69, par) in case the child is nursed by its mother.

These maternity benefits and nursing bounties are reported to have influenced the infant mortality rate, at times, beyond the most optimistic expectations. For example, in one district the awarding of a 10 months' nursing allowance in the amount of 15 francs (\$2.90, par) per month, together with a bonus granted by the municipality, had a profound effect upon the living conditions of infants, and after 13 months under this system mothers who nursed their children increased from 10 to 55 per cent while infant mortality decreased "in the proportion of 5 to 1." The central committee on family allowances indorses without hesitation the extension of bounties for nursing mothers, and a growing number of funds are also advocating such extension.

Some of the longer established funds have taken into their service former Army nurses who visit the homes of the workers and assist, relieve, and counsel the mothers.

The splendid results secured by some funds have stimulated them to further efforts. They have set up medical clinics for children, given free surgical treatment and hospital care, and conducted preventoriums with remarkable success. In Lyon, where the visiting system is conducted on a large scale, the cost of the service does not exceed 1 franc a month per employee. The cost of the social service of visiting nurses at Paris alone carried on by 700 establishments employing approximately 200,000 workers is only 0.05 franc per 100 francs of salary.

The textile association for Roubaix-Tourcoing and the district, which has 312 manufacturing members who employ 60,000 workers, was one of the pioneers in adopting the system of family allowances. The grants of this association are as follows:

| Families with—  | Amount per day.         |
|-----------------|-------------------------|
| 1 child.....    | 2 francs. <sup>1</sup>  |
| 2 children..... | 5 francs. <sup>1</sup>  |
| 3 children..... | 8 francs. <sup>1</sup>  |
| 4 children..... | 12 francs. <sup>1</sup> |

The number of beneficiaries was 32 in August, 1919, and at the close of 1922, 24,000.

<sup>1</sup> Franc at par=19.3 cents.



The amounts reported paid by these employers, in family allowances, by years, are given below:

|           | Francs. <sup>1</sup> |
|-----------|----------------------|
| 1919..... | 76,180               |
| 1920..... | 6,431,808            |
| 1921..... | 9,425,038            |
| 1922..... | 13,432,791           |

In 1919, 187 maternity allowances were granted; in 1922, 2,475.

Upon a recent demand for wage increases by the textile workers at Roubaix-Tourcoing the central committee of textile employers declared that the cost of living, despite the present increase, was lower than the cost of living on November 9, 1921, and that the cost-of-living index fell from 3.95 in 1921 to 3.24 in 1922 without a corresponding reduction of wages. The labor organizations, the committee further declared, were not warranted in protesting against the insufficiency of their domestic budget, because at Roubaix-Tourcoing family allowances are paid in this industry up to 5 francs (96.5 cents, par) a day for a family of father, mother, and two children below 13 years of age.

#### Agricultural Funds.

Serious efforts have been made in several sections of France to organize family allocations for farm laborers, and this problem, which is beset with many difficulties, has been brought up at the numerous conferences of agricultural societies. The first compensation fund for agricultural workers was that of the Regional Union of Agricultural Syndicates of the Ile de France, which was set up in 1920. In *Industrial and Labor Information* (Geneva) of July 7, 1922 (pp. 53-55), there is a brief report on two other funds, one at Touraine and the other at Bordeaux.

The Indre-et-Loire fund at Touraine makes semiannual grants to agricultural laborers with at least three legitimate or acknowledged children under 14 years of age. This fund is supported by assessments based on the amount of land cultivated by farmers or owners. The assessment for active members is 2 francs (38.6 cents, par) annually for a hectare (2.471 acres) of vineyard, pasture, or arable land and 0.10 franc (1.9 cents, par) for forest land, the minimum assessment for six months being 50 francs (\$9.65, par).

An agricultural worker, man or woman, can not receive family allowances from the Indre-et-Loire fund until he has been in the sole employment of one of the active adherents to the fund for six consecutive months.

To fix the amount of the allowances the sum available from the assessments of the preceding half year is divided by the number of children eligible for benefits. Changes in the list of beneficiaries resulting from births, deaths, and arrivals in and departures from the district, as well as increases or decreases in land or wood areas which may occur between the declarations of members of the fund and the allowance payments, take effect in the next half year.

The organization also has honorary members whose assessments and entrance fees are placed in a separate fund from which are paid the initial costs of organization and management, additional allowances to certain families, or contributions to support or establish social institutions for the benefit of the families of peasants.

<sup>1</sup> Franc at par=19.3 cents.

The assessment charged by the Bordeaux fund is 3 francs (57.9 cents, par) per month for each worker permanently employed by an adherent to such fund. In July, 1920, this fund was paying, per month, for one child, 10 francs (\$1.93, par); for two children, 30 francs (\$5.79, par); for three children, 45 francs (\$8.69, par); for four children, 65 francs (\$12.55, par); for five children, 85 francs (\$16.41, par); and for six children, 120 francs (\$23.16, par).

#### Further Centralization.

In the latter part of 1920 the central committee on family allowances, to which reference has already been made, was organized for study and propaganda, with headquarters at Paris (7 Rue de Madrid). M. Eugène Mathon-Motte was made the first president of the new agency which was to act as a permanent national liaison office for the various funds. Three national congresses on family allowance compensation funds have been held under the auspices of this committee. The first was held in Paris on July 4, 1921, at which time it was reported there were over 72 funds in existence. At this meeting marked objection was registered by resolution to a proposed law for the intertrade and regional organization of funds and also to "the incorporation of family allowances in salary declarations to insurance companies."

The second congress was held at Grenoble on May 22, 1922, and included the following among the subjects on the program:

- The history of family allowances at Grenoble and in the Lyonnaise district.
- The social service of the Parisian fund.
- Child clinics and the preventorium at Nancy.
- Extension of family allowances to engineers and home workers.
- The organization of agricultural family allowance funds.

Attention was called at this convention to the tendency of new funds to organize along regional rather than trade lines. From the first to the second congress—a period of less than 11 months—20 new funds were organized and 25 more were in process of formation. On January 1, 1923, the number of organized funds was 108, with steps being taken toward the establishment of 30 others. Six months later the number of funds had increased to 120, with 33 more in the course of organization. As previously stated, there are now 123 funds.

Among the subjects discussed at the third congress of compensation funds, held at Nancy June 4–6, 1923, were:

- The hygienic services of compensation funds.
- The distribution of family allowances according to family responsibilities.
- The distribution of the cost of the allowances among members of compensation funds.
- The necessity of precise terminology for family allowances.
- Special action with a view to recruiting the trade.
- Action of funds with a view to facilitating the increase of house and garden privileges.
- Conditions governing allowances in early infancy in case of protracted illness or death of the head of the family.

At this convention the committee on family allowances announced the publication of its first annual report, a volume of 438 pages in four parts: Part I, which deals with the work of the committee itself; Part II, which reproduces useful information on the composition and administration of various funds and sets forth their respective advantages to beneficiaries and the regulations governing the privileges

accorded (accompanying tables facilitate the comparing of the data); Part III, which contains a study of legislation and jurisprudence bearing upon family allowances; and Part IV, which covers legislation and regulations having to do with—(1) the organization of the family, (2) the large family, and (3) the family in industry.

#### Divergent Viewpoints.

While some employers declare that the workers approve of the system of family allowances, there is evidence that the present private régime is looked upon with considerable suspicion, at least in certain sections of the labor world.

The subject of family allowances was not originally placed on the agenda of the Seventeenth Congress of the General Confederation of Labor (C. G. T.) of France, which was in session at Paris January 30 to February 2, 1923, but as certain unions had become interested in this problem the confederation published in the January, 1923, number of its official organ, *La Voix du Peuple* (pp. 15-32), the report already referred to on the subject. After the program was made up the Federation of the Unions of the North requested that the question of family allowances be brought before the congress because of the importance of this new system and the necessity for defining labor's attitude in the matter. The following resolution, submitted to the convention, reiterates in somewhat different language a number of the objections to family allowances, which were set forth in the above-mentioned report:

The congress considers that assistance for large families and maternity and nursing allowances constitute a form of social protection which should be organized by the community in the same way as protection against unemployment, sickness, disability, and old age. These questions can not be adequately dealt with by systematic resort to private charity or philanthropy, and such a system is liable to encourage extremely dangerous forms of dependence.

The congress warns the workers against the practice of granting additional wages for workers with families.

This measure was invented by the employers in the course of their contest with the trade-unions, and constitutes a danger to the latter. It has the effect of lowering wages, and it is liable to result in a conflict between the claims of workers with families and those of other workers.

If the measure is applied by individual employers only, it may encourage them to dismiss workers with families in order to decrease the costs of their undertaking. If it is applied with the assistance of compensation funds, it means that the employer is in possession of files giving particulars regarding his workers. He is thus enabled to interfere in the private life of the workers in an unjustifiable way, and an undesirable system of regulations is set up, by means of which the workers are kept in subjection, and all their efforts toward emancipation frustrated. In whatever way it is organized, the system in fact results in increasing the influence and means of domination at the disposal of capitalism.

Instead of such false and dangerous philanthropic measures, the burden of which is, in the last resort, borne by the workers, the congress demands the establishment of minimum wages at rates fixed by the trade-unions.

The congress demands that an effective system of assistance for large families, in the form of family allowances and maternity and nursing benefits, should be organized by the community as a whole. The expenses should be covered by compulsory contributions from the employers and by contributions from the State. The management of the funds and the distribution of allowances should be intrusted to officially appointed committees, including representatives elected by the various interests concerned.

The right to family allowances is of a social character, and should be completely independent of employment. They should not be affected by the fluctuations of employment, and the families which are entitled to them should not lose them owing to sickness or to unemployment in any of its forms.

The assistant secretary of the General Confederation of Labor and the secretary of the Federation of Textile Workers express themselves in published interviews as personally in favor of taking the payment of family allowances out of the hands of employers and of placing the matter under Government direction. The former advocates that these allowances be made a form of social insurance regulated by law. He also calls attention to the possibilities of employers tending to reduce generally their hourly wage rates to counterbalance the expenses of affiliating with compensation funds. The latter trade-unionist is of the opinion that family allowances should be paid not only in unemployment and sickness but also during strikes.

Furthermore, at a recent conference of the Federation of the Trade-Unions of the Seine one of the objections raised against the French social insurance bill was that "the latitude allowed to private initiative will make organizations such as the employers' funds formidable weapons in the hands of employers."

The attitude of the Christian labor unions on the "family wage" system is naturally more pacific. According to the economic world program of the International Confederation of Christian Unions, with which body the Confederation of French Christian Unions is affiliated, "every adult male worker has a right to a minimum wage which will enable him to provide for his household in conformity with the demands of human dignity, to support and bring up a family \* \* \*. It is reasonable to provide for large families by allowances from special funds."

At the congress of the Federation of Christian Woman Workers' Unions at Paris, January 26-29, 1923, a resolution was passed recommending that the family allowances paid by compensation funds should be sufficient "to make it unnecessary for mothers to work outside their own homes." A somewhat similar measure was adopted by the Tenth Congress of Women's Free Unions (Catholic) in the silk industry of the Isère, which was held May 19-21, 1923. Pending the advocated reform, the free unions "should insist upon the family allowances being always added to the mothers' wages."

Many employers are quite militant in the matter of maintaining their freedom in the granting of family allowances. For example, the General Confederation of French Production circularized its affiliated members, requesting them to oppose the bill for changing the voluntary action on the part of employers in making these allocations to a legal obligation and suggesting that the best way of convincing Parliament that its intervention is not required would be to expand still further the present private régime. Affiliated organizations have also been asked to conduct energetic propaganda to increase the membership of compensation funds.

At the congress of the Federation of French Employers' Associations (*l'Union des Sociétés Industrielles*) at Rouen, June 12-15, 1922, a resolution was passed favoring the rejection by Parliament of measures providing that family allowances be made legally compulsory for all or any employees. An interesting paragraph in the same resolution favored the discarding of the term "supplementary wages" (*sursalaire*) and specifically advocated that manufacturers' associations when consulted should recommend the supporters of the family-allowance system to avoid applying such term to family allowances or using it in the titles of compensation funds.



The Federation of Employers in the Textile Industry is another strong advocate for private initiative in the matter under discussion, declaring in a resolution of May 30, 1923, that to secure the maximum results with the minimum of expense complete freedom should be accorded to such institutions as compensation funds granting family allowances.

A French authority, representing the industrial point of view, says: "It seems that the liberty allowed employers has been in this matter, as in many others, one of the principal factors of success. Funds would not have been able to develop in the midst of such varied conditions but for the privileges of self-government which they enjoyed. Any legal regulation might result in paralyzing this movement."

It would appear that even in connection with instituting family allowances in contracts for State, department, or community projects the compulsory feature has been contested. For instance, the commission of the French Chamber of Deputies requested the Government to insert a clause in the estimates for public works authorized by the communes, the departments, or the State requiring the contractor to belong to a family allowance compensation fund. The law that was passed, however, on December 19, 1922, dealing with the matter made it only "permissible" for bidders' estimates for such works to include a provision obligating contractors to pay family allowances to those employed thereon. Recent amendments to this law have, however, introduced a number of compulsory regulations in this connection.

The president of one of the compensation funds, in a recent lecture at Marseille on family allowances, sounded a note of caution in his conclusion, stating that the system was not a universal panacea—that there were conditions, times, and places to which the institution was not "uniformly applicable." He suggested the following three general principles in granting these allocations: (1) The allowances must be sufficient; (2) they must be supplemental to a fair wage proportionate to the work accomplished; and (3) they must be the beginning of closer cooperation between employers and workers.

In the opinion of the director of the central committee on family allowances, this supplemental wage system will "perhaps permit labor to realize by degrees its social aspirations without abusive overcharges on production."

State action in the application of a family allowance system was advocated by the Abbé Desbuquois in his lecture on "Economic reforms" before the Fifteenth of the "Social Weeks," which was held at Grenoble from July 30 to August 6, 1923. The family, he thought, could not wait until the "good will shown by some had converted others whose present attitude is one of calculated indifference."

Discussing the relation of family allowances to wages, Roger Picard, in a monograph in *Les Documents du Travail*, June-July, 1923, declares that the arguments for divorcing these allocations from labor agreements are not convincing. Moreover, he reports that the persons arguing for this disassociation have had recourse to such reservations and have lapsed into such ambiguities that their thesis defeats itself. In Mr. Picard's opinion, these allowances would not be understandable in the absence of the work contract. They are part of the

compensation which the worker takes into account when he agrees to render certain services. If employers should decide to discontinue the system they would undoubtedly meet with "vigorous opposition" on the part of labor or with claims for wage increases. Mr. Picard also thinks that in time these grants, in one form or another, will probably be demanded by the workers in establishments or industries where allowances are not yet made. He believes that if the family allocation becomes in the future "an integral and compulsory part of wages it will take the form of an insurance benefit."

#### Belgium.

THE subject of family allowances has recently been attracting much attention in Belgium among industrial organizations and economic groups. The remarkable extension of the system in France and the possible effects of this extension on the competitive labor market in the way of drawing Belgian workers to enterprises in France which grant family allowances have given an additional impetus to the study by the Belgians of "family wages."

During the war, in order to lessen the pressure of the high cost of living, public administrations in Belgium adopted the practice of paying family allowances to their personnel, and seven or eight years ago such grants were being made in a few private undertakings of the country, especially in its coal-mining districts.

A comprehensive report on family allowances in Belgium was recently submitted to the Commission on Large Families (*Commission des Familles nombreuses*) and is reproduced in the May, 1923, number of the *Revue du Travail* (Brussels). In the July, 1923, issue of the same official organ there are numerous extracts from another important report on the subject by Mr. Midol, an engineer. A large part of the information which follows is taken from these two reports.

In 1921 the first compensation fund was set up at Verviers. The next year the movement for the establishment of such funds advanced considerably, and in the early part of 1923 embraced various industries in all sections of the country, while still larger plans for the development of the system were being formulated by industrial leaders.

The table given below lists coal mines and compensation funds paying family allowances in May, 1923, but does not cover certain public administrations, banks, and commercial organizations:

# STATUS OF FAMILY-ALLOWANCE SYSTEM IN BELGIUM, MAY, 1923.

[Franc at par=19.3 cents.]

63745°-23-2

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“FAMILY-WAGE” SYSTEM IN FRANCE AND BELGIUM.

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| Name of fund.   | Date of constitution. | Number of firms. | Number of workers employed. |  |  |                  |             |                     |                          | Monthly family allowance scale adopted for— |                                 |                                 |  | Approximate total of monthly allowances. | Maternity benefits.                          | Remarks.   |
|---|-----------------------|------------------|-----------------------------|--|--|------------------|-------------|---------------------|--------------------------|---|---------------------------------|---------------------------------|--|--|--|--|
|   |                       |                  | Total.                      | Heads of families with specified number of children under 14 years of age. |  |                  |             |                     | Total heads of families. | First child.                                | Second child.                   | Third child.                    | Fourth and following children.                   |  |  |  |
|   |                       |                  |                             | No children.   | 1 child.                                     | 2 children.      | 3 children. | 4 or more children. |                          |   |                                 |                                 |  |  |  |  |
| Coal mines of Tarnines <sup>1</sup> .....   | 1915                  | 1                | 1,180                       | 272  | 260  | 159              | 67          | 63                  | 821                      | <i>Francs</i> <sup>2</sup> 0.25             | <i>Francs</i> <sup>2</sup> 0.25 | <i>Francs</i> <sup>2</sup> 0.60 | <i>Francs</i> <sup>2</sup> 0.60                  | <i>Francs</i> 6,000                      | <i>Frncs</i> <sup>3</sup> 100                |  |
| Coal mines of Carabinier <sup>1</sup> .....   | 1915                  | 1                | 1,160                       | ( <sup>4</sup> )   | 204  | 135              | 62          | 45                  | ( <sup>4</sup> )         | <sup>2</sup> 2.25                           | <sup>2</sup> 2.25               | <sup>2</sup> 2.60               | <sup>2</sup> 2.60                                |  |  |  |
| Coal mines of Roton-Farciennes <sup>1</sup> .....   | July 1, 1920          | 1                | 2,291                       | 276  | 297  | 224              | 112         | 93                  | 1,002                    | <sup>2</sup> 2.25                           | <sup>2</sup> 2.25               | <sup>2</sup> 2.60               | <sup>2</sup> 2.60                                | 13,500                                   | 100  |  |
| Coal mines of Nord de Gilly <sup>1</sup> .....  | July 1, 1921          | 1                | 941                         | 108  | 183  | 126              | 49          | 40                  | 506                      | <sup>2</sup> 2.25                           | <sup>2</sup> 2.25               | <sup>2</sup> 2.60               | <sup>2</sup> 2.60                                | 5,500                                    |  |  |
| Coal mines of Wérister.....   | 1919                  | 1                | 1,188                       | 85   | 188  | 132              | 94          | 155                 | <sup>5</sup> 691         | <sup>2</sup> 2.40                           | <sup>2</sup> 2.60               | <sup>2</sup> 2.80               | <sup>2</sup> 1.00                                | 11,500                                   |  | Infirm receive same as children.   |
| Construction shops of Enghien-St. Eloi. }   | 1921                  | 1                | .....                       | .....  | .....  | .....            | .....       | .....               | .....                    | .....                                       | .....                           | 15.00                           | { <sup>18</sup> 0.00 }<br>{ <sup>21</sup> 1.00 } | .....                                    |  | 40 centimes extra for wife. Payment made quarterly.  |
| Verviers Compensation Fund.....   | Mar. 25, 1921         | 39               | 1,973                       | ( <sup>4</sup> )   | ( <sup>4</sup> )                             | <sup>7</sup> 163 | .....       | .....               | ( <sup>4</sup> )         | .....                                       | 20.00                           | .....                           | .....  | 7,630                                    | { <sup>8</sup> 133 }<br>{ <sup>9</sup> 100 } | Also medical care and lodging.   |
| National fund for family allowances and social insurance, building and public works, Brussels.          | Aug. 2, 1922          | 170              | 10,000                      | ( <sup>4</sup> )   | 1,160  | 720              | 350         | 270                 | ( <sup>4</sup> )         | 10.00                                       | 12.00                           | 14.00                           | 16.00  | 50,000                                   | .....  | Allowances will begin with the first child, June 1, 1923; probable monthly scale: 12, 20, 28, 36 francs.                 |
| Fund for family allowances of federation of zinc, lead, silver, copper, and nickel foundries, Brussels. | Aug. 22, 1922         | 14               | 11,997                      | ( <sup>4</sup> )   | { <sup>1</sup> 061 }<br>{ <sup>1</sup> 567 } | 1,038            | 638         | 889                 | ( <sup>4</sup> )         | 15.00                                       | 15.00                           | 15.00                           | 15.00  | 105,000                                  | { <sup>8</sup> 150 }<br>{ <sup>9</sup> 150 } | Payments made quarterly.   |
|   |                       |                  |                             |  |  |                  |             |                     |                          |   |                                 |                                 |  |  |  | {Children under 14 and frail children over 14 years. No allowances for first child in Antwerp, Regina, and Cambrinnoise. |

<sup>1</sup> Will come under system adopted by coal mines of Charleroi district as soon as such system goes into effect.

<sup>2</sup> Rate per working day.

<sup>3</sup> Per birth.

<sup>4</sup> Not reported.

<sup>5</sup> Not correct sum of items, but is given as printed in original.

<sup>6</sup> Beginning with fifth child.

<sup>7</sup> 2 or more children.

<sup>8</sup> For first child.

<sup>9</sup> For following children.

## STATUS OF FAMILY-ALLOWANCE SYSTEM IN BELGIUM, MAY, 1923—Concluded.

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| Name of fund.   | Date of constitution. | Number of firms. | Number of workers employed. |  |          |             |             |                     |                          | Monthly family allowance scale adopted for— |               |              |   | Approximate total of monthly allowances. | Maternity benefits.                      | Remarks.                                 |
|---|-----------------------|------------------|-----------------------------|--|----------|-------------|-------------|---------------------|--------------------------|---|---------------|--------------|---|--|--|--|
|   |                       |                  | Total.                      | Heads of families with specified number of children under 14 years of age. |          |             |             |                     | Total heads of families. | First child.                                | Second child. | Third child. | Fourth and following children.            |  |  |  |
|   |                       |                  |                             | No children.   | 1 child. | 2 children. | 3 children. | 4 or more children. |                          |   |               |              |   |  |  |  |
| Compensation fund (quarries and cement factories) for family allowances of Tournaisis.  | Sept. 1, 1922         | 30               | 5,461                       | 1,117  | 1,060    | 526         | 241         | 180                 | 3,166                    | Francs 2.50                                 | Francs 2.50   | Francs 2.75  | Francs 2 1.00                             | Francs 295,000                           | Francs .....                             |  |
| Compensation fund of Chamber of Commerce of Renaix.                                     | Nov. 1, 1922          | 16               | 2,195                       | (4)  | .....    | 7 92        | .....       | .....               | (4)                      | .....                                       | .....         | 2.50         | { <sup>2.75</sup><br><sup>10 1.00</sup> } | 5,000                                    | 100                                      |  |
| Compensation (metallurgical) fund for family allowances for Liege region.               |                       | Dec. 18, 1922    | 83                          | 35,097   | (4)      | 118,305     | .....       | .....               | .....                    | (4)   | 10.00         | 20.00        | 30.00                                     | 40.00                                    | 203,000                                  | { <sup>8 250</sup><br><sup>9 150</sup> } |
| Boussu construction shops.....  | Feb. 1, 1923          | 1                | 252                         | 84   | 33       | 16          | 4           | 4                   | 141                      | 10.00                                       | 20.00         | 30.00        | 40.00                                     | 1,650                                    | { <sup>8 250</sup><br><sup>9 150</sup> } |  |
| Compensation fund for family allowances of Brabant. <sup>12</sup>                       | Feb. 13, 1923         | 31               | 5,513                       | (4)  | 961      | 409         | 159         | 81                  | (4)                      | 10.00                                       | 20.00         | 30.00        | 30.00                                     | 44,000                                   | { <sup>8 250</sup><br><sup>9 150</sup> } |  |
| Compensation fund (quarries) for family allowances of region of Soignies.               |                       | Mar. 1, 1923     | 8                           | 2,000  | (4)      | 475         | 173         | 60                  | 42                       | (4)   | 6.25          | 13.00        | 18.75                                     | 18.75                                    | 11,000                                   | .....                                    |
| Compensation fund of Antwerp region.  | Mar. 1, 1923          | 6                | 2,500                       | (4)  | 372      | 182         | 73          | 59                  | (4)                      | 15.00                                       | 15.00         | 15.00        | 15.00                                     | 19,000                                   | .....                                    | Provisional figures.                     |
| Compensation fund for family allowances for region of Charleroi and of La Basse-Sambre. | May 1, 1923           | .....            | .....                       | .....  | .....    | .....       | .....       | .....               | .....                    | 10.00                                       | 20.00         | 30.00        | 40.00                                     | .....                                    | { <sup>8 250</sup><br><sup>9 150</sup> } |  |
| Federation of coal mines of Belgium.  |                       | May 1, 1923      | .....                       | 160,000  | .....    | .....       | .....       | .....               | .....                    | .....                                       | 10.00         | 20.00        | 30.00                                     | 40.00                                    | .....                                    | .....                                    |

<sup>2</sup> Rate per working day.

<sup>4</sup> Not reported.

<sup>5</sup> Not correct sum of items, but is given as printed in original.

<sup>7</sup> 2 or more children.

<sup>8</sup> For first child.

<sup>9</sup> For following children.

<sup>10</sup> Rate per working day beginning with fifth child.

<sup>11</sup> 1 or more children.

<sup>12</sup> 31 firms, of which 23 were in operation in March, 1923.

Provisional figures.

In Hainaut allowances begin with second child.

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It is estimated that there are from 225,000 to 250,000 workers and employees in Belgium “living under the régime of family allowances”; the personnel receiving grants from various public administrations is apparently not covered in the above total. A number of banks at Antwerp and Brussels have plans in view for paying family allowances, which, however, do not include the creation of compensation funds. Public administrations, as said above, began to grant family allowances during the war. The State, several Provinces, and some communes are doing something in this line at the present time. For example, the State pays a family indemnity of 50 centimes (9.65 cents, par) a day per dependent child under 21 years of age, and promise was made by the Government at the May 7, 1923, session of the Chamber of Deputies to double this allowance.

A few Provinces have adopted the present State scale. The Province of Luxemburg, however, grants to its technical force a yearly allowance of 200 francs (\$38.60, par) per child under 18 years of age. In eastern Flanders the allowance is 200 francs for every dependent child under 21 and without limitation as to age for abnormal, sickly, or chronically weak children who are unable to earn a livelihood, except when such children have personal resources. The Province of Liege makes family allocations on a sliding scale, which when the index reaches a certain point amounts to 240 francs (\$46.32, par) annually per child. In the Province of Namur it is possible for a Government employee with six dependent children to receive 3,780 francs (\$729.54, par) a year in family allowances. It is of interest to note that the grants are given for manual workers' children under 15 years of age and for salaried employees' children under 18 years of age.

Among the municipalities that have adopted the “superwage” system for their workers is the city of Louvain which since the beginning of 1923 has paid allowances of 50 centimes (9.65 cents, par) per day for each dependent child under 16.

In Etterbeek a married man who is the father of a family and employed by the municipal government is allowed 19 francs (\$3.67, par) per month and 30 francs (\$5.79, par) a month per child. The annual salary of a single man is limited to 8,000 francs (\$1,544, par) and that of a married man who is not the father of a family to 10,000 francs (\$1,930, par), while the father of a family may receive 10,000 francs and 1,000 francs (\$193, par) per child. A father of 10 children could, under this scheme, receive as high as 20,000 francs (\$3,860, par) annually.

#### Trend Toward Centralization.

The central industrial committee of Belgium has organized at Brussels a committee of inquiry on family allowances with the purpose of not only making an investigation of this subject but also of forming a federation of compensation funds. The president of this committee is Mr. Lechat, the head of the compensation fund of the Liege district.

As shown in the preceding table, the National Federation of Belgian Mine Operators has concluded to set up a system of family allowances. There is some question, however, as to whether compensation funds will be created for this purpose. According to very recent reports, the coal operators of the Liege basin have adopted

the scale of the Liege metallurgical fund. The concerted action on the part of the Belgian coal-mine interests and the affiliation of the majority of the metallurgical establishments, of the building federation, of the Renaix textile firms, and of the central industrial committee with the movement for "family wages" indicate how rapidly the new régime is expanding and suggests further possibilities of centralization. The Christian Federation of the Middle Classes has also created a commission of inquiry with a view to laying the foundations of a national and intertrade compensation fund for the Flemish country, the birth rate of that region differing from that of other parts of the country.

#### Functioning of Funds.

The report on family allowances submitted to the Belgian commission on large families (*Commission des Familles nombreuses*), points out that compensation funds are effective in overcoming the temptation of family men to give up their jobs and that these institutions stabilize the "family-wage" system. Some of these compensation funds themselves pay the grants to workers or the workers' wives. This practice distinctly separates the family allowance from every other wage bonus. It has been found best to send the allowance "to the one who has immediate charge of the children." One of the most typical and best worked out plans of progressive payment of family allowances is said to be that selected by the Liege metallurgical fund. This scale, as indicated in the above table, is: 10 francs (\$1.93, par) for the first child; 20 francs (\$3.86, par) for the second child; 30 francs (\$5.79, par) for the third child; 40 francs (\$7.72, par) for the fourth child. There is also a maternity benefit of 250 francs (\$48.25, par) for the first born and 150 francs (\$28.95, par) for each additional child.

Another method of granting allowances is to accord the same sum for each child but only to families having at least three or four children. The giving of an allowance for the first child, which is withdrawn at the end of a year if there is no second child, is also cited as one of the plans of payment.

The expenses of compensation funds vary according to the birth rate in the districts in which the labor force resides, according to whether all families or only those with three or four children are beneficiaries, and according to the make-up of the personnel, some establishments employing a large number of young persons and other firms very few youthful workers.

In France the average allowances are 1 franc (19.3 cents, par) per child per day, which expense is met by an assessment of from 1.5 to 2 per cent on the total pay roll.

The system in Belgium is still in an experimental stage. It is noted, however, that the birth rate there is generally somewhat higher, at least in the Flemish country, than it is in France, and therefore the cost of the system under the same scale of allowances will be greater in Belgium, but it is estimated that reasonable grants could be made by an assessment of 4 to 5 per cent on the pay roll.

#### A Proposed Plan.

The Federation of (Christian) Free Miners (*La Centrale des Francs-Mineurs*) has recently laid before the National Mixed Commission

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of Mines a tentative agreement on family allocations, which includes the constitution of a family allowance compensation fund for the coal industry of Belgium.

Among some of the interesting features of this proposal are the following:

The miners themselves are to contribute a certain percentage of their salaries to the fund; the employers will also pay into it an equal percentage, the amount of such percentage to be determined by the council of administration of the national compensation fund, which is to be administered by 16 members, 8 representing the employers and 8 the unions.

The following allowances per day and per child, according to the index of 100, are proposed: 1 child, 0.15 franc (2.9 cents, par); 2 children, 0.20 franc (3.9 cents, par); 3 children, 0.30 franc (5.8 cents, par); 4 children or more, 0.40 franc (7.7 cents, par).

All controversies are to be submitted to the council of administration.

#### Attitude of Different Organizations.

The socialists, after some defensive skirmishing, are reported as "inclined now to support" the institution of family allowances. The Federation of Miners (*Centrale des Mineurs*), which is a powerful socialistic union, declared itself unanimously, last March, in favor of such allocations, making reservations, however, regarding the methods of applying these grants.

The Christian workers have been in favor of family allowances from the beginning of the régime. The following resolution was passed by the Sixth Congress of the Confederation of Christian Trade-Unions held at Antwerp May 20 and 21, 1923:

(1) The congress reaffirms the decision of the fifth congress of Christian trade-unions demanding as a fair wage remuneration commensurate with the work done, and as a minimum wage a sum sufficient for the needs of a family of average size;

(2) Appeals to the affiliated organizations to continue trade-union action with a view to securing such wages;

(3) Reaffirms the demand of the fifth congress of Christian trade-unions for the allocation of family allowances to families with more than the average number of children;

(4) Declares that family allowances represent an act of solidarity on the part of industry as a whole with regard to workers with more than an average number of children, and that such allowances must not prevent the workers from securing an adequate wage as defined above, nor should the introduction of a system of family allowances be allowed to lead to the adoption of the so-called "relative family wage," i. e., remuneration of labor based on the individual needs of each worker;

(5) Considers that a system of family allowances consisting in the payment of a comparatively small allowance for small families and a much larger allowance for children in excess of the average number, is not necessarily contrary to the principles set forth but is of opinion that it is always preferable to grant allowances only to families with more than an average number of children;

(6) Reaffirms also the decision declaring that family allowances should be paid by national compensation funds set up for each industry and subsidized by the State;

(7) Protests against the proceedings of certain employers who take advantage of the position of workers with heavy family responsibilities to restrict the liberties of workers and even to assume a certain control over their private life;

(8) Declares that, contrary to the views expressed by certain employers, the workers are entitled to share in the administration of the compensation funds just as much as the employers, and reaffirms the demand of the fifth congress of Christian trade-unions that compensation funds should be administered by joint committees, consisting of representatives of the workers' and employers' organizations;

(9) Declares that it is the duty of the affiliated organizations (a) to endeavor to secure adequate representation in the administration of existing compensation funds, and (b) to take every opportunity to enforce the recognition of the principles set forth above;

(10) Considers that in order to prevent abuses in the application of the family allowance system, it is essential that the system should be regulated by law.

At the annual congress of the Federation of Belgian Metal Workers, which met in Brussels April 22, 1923, a resolution was adopted almost unanimously, urging that the system of family allowances be made general through "legislation regulating the conditions for the granting of allowances under the supervision of public authorities in collaboration with the workers' organizations," and holding that the right to these grants should be inalienable and that the administration of the funds for family allowances should be in the workers' hands.

The Commission on Large Families at its meeting on April 30, 1923, adopted a number of conclusions and resolutions concerning family allowances, which not only show how strongly that body advocates them but also analyzes the principles upon which the practice is based. For example, the commission declares that it is reasonable to consider the "social value of the father of a family" in addition to his value as a worker; that the family is actually the source of "the necessary renewal of all human forces and activities and that the father of a family assures to the society in which he lives future prosperity and security, while the celibate and the childless married worker generally provide only for their personal needs." It is equitable that society should fully compensate the father of a family because of the benefits society secures from his assumption of responsibilities. It is also pointed out that employers have a special interest in the stability and renewal of their labor supply. On the other hand, the commission emphasizes the importance of making a clear-cut distinction between the remuneration for the labor of a father of a family and the payment for his socio-economic services.

In the judgment of the commission, compensation funds for family allowances are the best institutions known for carrying out the theories just cited. Large families themselves are, of course, particularly interested in seeing the movement for the establishment of such institutions extended as far as possible to all kinds of workers, intellectual as well as manual.

The commission also holds that the most equitable and most practicable way to solve the difficulties of large families is the granting of allowances in proportion to the responsibilities and services of such families. Furthermore, these grants must never be confounded with the assistance given needy families. The amount of the family allowances should be increased sufficiently to correspond to the responsibilities for which the grants are made. As the inadequacy of salaries and actual wages is particularly obvious in the case of large families and the available sums for the payment of allowances are limited, the commission suggests that the needs of such families be provided for first of all by granting them higher allowances than the families which have few children.

It is recommended that the allowance per child per day should not be less than 1 franc (19.3 cents, par) after the family has four children and that amount should be increased as soon as possible to two francs (38.6 cents, par) per child per day. The suggested age limit is 16 years, except in cases where older children are dependent upon the head of the family because of more advanced courses of study, apprenticeship, or poor health.

The commission is in favor of continuing allowances, under conditions to be defined, in case of the unemployment, sickness, invalidity, or disability through accident or death of the head of the family, and possibly in other circumstances.

The State, Provinces, and communes, the commission believes, should encourage the expansion of the “family-wage” system and that body suggests the propriety of these respective governments making at least as large grants as are made in private enterprises. Provisions for family allowances in bids on contracts for public works are also recommended.



# INDUSTRIAL RELATIONS AND LABOR CONDITIONS.

## Labor Relations in the Coal Industry.

### Anthracite.

THE report of the committee, consisting of H. S. Dennison, W. E. Hotchkiss, and J. H. Willits, appointed to study labor relations in the anthracite industry, was made public by the Coal Commission on August 8.<sup>1</sup>

The report cites in brief the organization and procedure of industrial relations in the anthracite industry prior to and subsequent to the anthracite award of 1903, noting the important changes which have been made in the 1903 award by the succeeding agreements and the development of organization of the workers and operators since that time.

The committee finds the more important causes of the friction leading to strikes to be—

- (a) Attitude toward the agreement.
- (b) Wages.
- (c) Hours.
- (d) Irregularity of operation and attendance.
- (e) Attitude toward restriction of output.
- (f) Discharge and discipline.
- (g) Union membership.
- (h) Administration of labor relations.

#### Attitude Toward the Agreement.

The committee reports no practical division over the union or non-union issue; with few exceptions both parties believe in the agreement, but in performance it is inadequately carried out. Operators criticized certain features of it and condemned certain policies and practices of the union, but the consensus of opinion was that they were better off with than without it.

The operators criticized particularly the illegal strike and threat to strike used as a "conscious and illegal policy by the union to obtain advantages not granted under the agreement." The committee found a large and apparently increasing number of petty strikes, aggravated in some instances by inadequate provisions in the agreement, unscrupulous management, and delays in clearing up grievances. In general, however, the committee found that the firmly established conciliation machinery constituted a basis affording an exceptional opportunity for sound industrial relations.

#### Wages.

Approximately two-thirds of the cases reported to the conciliation board of the industry in the last 10 years involved wage rates. This condition exists largely because there is and has been no scientific basis of rate making in the anthracite industry. The 1902 rate,

<sup>1</sup> United States Coal Commission. Labor relations in the anthracite industry, by Henry S. Dennison, Willard E. Hotchkiss, and Joseph H. Willits, Aug. 8, 1923.

itself the cumulative result of trading under widely varying conditions, has been used as a base. Physical conditions have in many cases altered completely since 1902, and there are therefore many inequities among the rates which are a constantly increasing source of irritation.

The committee advises a provision in the agreement for a thorough revision of the rate structure, cooperatively worked out.<sup>2</sup>

#### Hours.

The eight-hour day prevails in the industry. The Coal Commission's study of wage rates indicates that in 148 collieries about 2 per cent of the employees in 55 specified occupations work in excess of 8 hours per day, and that about 70 per cent of these 2 per cent work on a 12-hour basis. The sense of unfairness among the relatively few men working 10 to 12 hours keeps up irritations which cost more than the saving, if any, from the longer hours. The committee therefore recommends the elimination of the long day.

#### Irregularity of Operation and Absenteeism.

Irregularity of operation and absenteeism is to be the subject of a special report of the commission. Data already collected show for the year 1921 an average absence rate for all workers of 11.5 per cent. A study of regularity of operation over the period 1890 to 1922 indicates that the anthracite industry has changed from one in which one of the foremost characteristics was its irregularity to one which compares favorably with most industries in this respect.

Although irregularity of operation is still a disturbing factor in industrial relations in the industry, this extraordinary progress toward regularity has aided in the solution of labor problems.

#### Restriction of Output.

The committee found that limitation of output does exist. The amount varies by districts and, in two of the districts, does not seem to be an important problem. In the third this practice occurs more frequently. In some instances the committee found that this was not willful curtailment of production, but the result of practices within the industry. In general the local union officials assumed an attitude of indifference toward restriction of output. In the opinion of the committee the problem will not be solved by denunciations but only by a careful study by operators and union leaders of the factors which enter into a fair day's work and of the causes of undue friction.

Where a miner sets his own limits to his "day's work," he is unavoidably influenced by his ideas of a satisfactory level of income and by his fears of the adverse effects that may result from records of high earnings. Not a little restriction of output arises under such circumstances. Its only cure is such an analysis of the elements of the job as has just been recommended.

#### Discharges and Discipline.

In the opinion of the committee the employers' right of discharge, although abridged scarcely at all by the agreement, has been very

<sup>2</sup> A detailed analysis of the wage structure is to be made the subject of another study by the commission.

definitely limited by the union, which has resorted to strikes and threats of strikes to prevent them. Friction over discharge and discipline at the present time arises over this fact together with the fact that the agreement does not define the rights of both parties.

In the judgment of the committee good management demands the existence of the power of discipline and discharge, safeguarded, however, against abuses of precipitancy, capriciousness, and the like. It is therefore recommended that the new agreement state specifically the rights and obligations of both parties, the right of discharge and discipline to rest with the operator, subject to appeal and prompt review by the conciliation machinery in case the discipline is alleged to be unreasonable or unjust. Such provisions should be vigorously enforced.

The committee finds no claim "that insistence on union membership is necessary for the protection or maintenance of the union. Their defense reduces to a feeling of abstract justice and a somewhat indefinite claim that the operators acquiesce in letting the practice of the open shop go by default if only they can preserve the statement of principle."

Many operators have reconciled themselves to the point of view of the union and, if the majority of their workers belong to the union, they not only prefer but urge the others to join. They bitterly resent, however, the violation of the agreement by "button" strikes and the constant threat of stoppage. Strikes also grow out of the attempt of the union to extend its jurisdiction and include in its ranks additional groups of workers. A difficulty in the situation seems to be the fact that the agreement itself says nothing about classes of workers over which the union has jurisdiction.

The committee's study strongly condemns the "button" strike (strike called by the union to compel employees to join the union or to pay union dues), the condoning of such strikes by the union officers who are obligated to prevent them, and the acquiescence in them by those against whom they are directed. It suggests that the situation should be promptly and vigorously dealt with by the conciliation machinery.

#### Administration of Labor Relations.

*Administration by operators.*—The collective agreement such as exists in the anthracite industry can not in the opinion of the committee be maintained by police or statutory power, but can be maintained only by the sense of responsibility and approval in each party to the agreement, backed on either side by an organization powerful enough and effective enough to command the respect of the other side and of its own members. On the union side such an organization exists, but there is no organization of operators that functions from day to day in connection with the agreement. The commission suggests the appointment by the operators of an organization in each district analogous to that of the union, or else an organization of the operators as a whole, represented in each district by a competent labor adjuster, to correspond in function to the union's district president.

The committee deplores the protracted and unnecessary delays in adjustment of disputes in some mines, which make for irritation.



The mine foremen and other officers interviewed were found to be men of high caliber; but systematic instruction of officials in their most important function—the handling of labor—was given scant attention. It is a recognized fact in the anthracite fields that the foremen's policy is often quite different from the official policy of the company and that a poor foreman is always a cause of trouble.

The experience of certain companies who have concentrated their responsibilities for industrial relations in a single executive, without other duties, indicated the immense advantage of such a plan in the improvement of labor relations.

*Administration by the union.*—The committee finds that union administration fails to some extent in the responsibility of its district and national officers for upholding the agreement, particularly in preventing petty strikes. This situation is partly due to the fact that the relationship between the district and national office and the local is not sufficiently close.

That district union officials, who are politically elected, can exercise adequate control by authority alone, may be questioned. Greater control can grow out of continuously closer contact. One way for such closer contact exists in the opportunity for educational service at meetings and otherwise by the district to the local. An opportunity exists for the education and development of its personnel by the union that is parallel to the opportunity of companies with their executives.

Attendance at the local union meetings was found to average less than 5 per cent. In the opinion of the committee, "The educational opening presented to the international and district officials in these local meetings is enormous and is a definite part of their responsibility in the maintenance of the agreement and their opportunity for the establishment of closer relations with the locals and thereby building up the union."

*Administration by the public.*—The chief flaw in the functioning of the conciliation machinery the committee found to be delays in operation, poor presentation of cases, and the lack of voluntary conciliation. In the hope of improving the functioning of the machinery the committee suggests:

1. The appointment of a continuing umpire to sit regularly with the conciliation board, without vote.
2. The appointment of alternate or alternates for each member of the conciliation board to facilitate the calling of board meetings, thus avoiding delays.
3. Full-time "labor commissioners" to be appointed by operators to assist operator members of the board and to act also with the union labor commissioner of the district in the adjustment of disputes before they go to the board.
4. A new agreement, with a renewal clause, to be worked out as the basic code covering essential items such as practice regarding discharge, etc., and to include penalties for violations by either party.

#### The General Strike.

The best approach to a remedy for the evils of the general strike will not, in the judgment of the committee, be found in compulsory arbitration. Because of its impracticability, because of the part which misleading propaganda may play particularly at the time of negotiating the agreement, and because of the large part which public opinion has played in every general strike in the anthracite

field, the committee would seek to provide means for compulsory investigation and report during the period of negotiations whenever failure of the efforts to conclude a new agreement is imminent.

The next agreement, the committee recommends, should be automatically renewed except in respect to such provisions as either party may have expressed a purpose to change by serving notice of such purpose on the other party 90 days before the renewal date. If within 60 days of the renewal date, the parties have been unable to agree, the President of the United States should be empowered to appoint a person or persons to inquire into the reason for the failure to agree and make a public report before the renewal date.

The committee further recommends that the renewal dates of the anthracite and bituminous agreements should not be coincident, but should be set sufficiently far apart that suspensions in both industries at once would not be invited.

#### Bituminous.

THE following summary of recommendations with regard to industrial relations in the bituminous branch of the industry was issued by the Coal Commission, September 14, 1923:

1. We recommend that each side place some check upon provocative and truculent publicity which tends to undermine good relations.
2. We recommend that the operators and the union undertake both separately and jointly the study of means of meeting the fundamental problem of unemployment through the stabilization of the industry, as a service to their own interests and as an evidence to the public of serious intention on their part to meet their own problems in a statesmanlike way under private administration.
3. We recommend that the Congress provide for the continuing cooperative study of and action against the problem of unemployment as one of its first responsibilities. This would involve studies and activities in the fields of labor relations, technical aspects of production, and the marketing and storage of the product.
4. We suggest the great importance in labor relations of good operating management in the mine, so that adequate production service to the men at the face will always be afforded.
5. We recommend the establishment in each district and nationally of joint commissions of operators and miners, with the aid of competent men, to make thorough studies of the principal jobs and of the existing rate differentials. It is important to develop an adequate basis for the needed revision of the rate structure, at present marked by many inequalities between sections, between mines, and between jobs in the same mine.
6. We recommend continuing cooperative study of the same subject by the general Government.
7. We recommend further attention to this same subject by individual mine managements and local unions.
8. We recommend continuous, compulsory collection and publicity of rates and rate changes in the nonunion fields by the general Government.
9. We recommend the universal establishment in the nonunion fields of check-weighmen selected and paid by the men as a means of insuring confidence in weights.
10. We recommend that that form of wage payment known as "subcontracting" be discontinued. It is held by most of the coal industry and by nearly all other industries as out of date and inherently subject to abuse.
11. It is recommended that the leasing of convict labor to operators, such as is now the practice in Alabama and a few other nonunion areas, be condemned as demoralizing to the industry and degrading to the convict.
12. It is recommended that the practice of discounting "scrip" be made illegal.
13. We recommend serious study by both sides, jointly and separately, of the problem of undue limitation of output and of the causes which lead to it.
14. We recommend that each agreement in the union fields contain provision that disputed cases of discharge shall be settled promptly through conciliation or arbitration.

15. We recommend to nonunion operators that adequate checks, to insure against capriciousness and unreasonableness, be placed on the exercise of the right to discharge.

16. We condemn violence, thuggery, and gun work, violation of the law and disturbance of the peace, whether practiced by the union to enforce complete unionization, or by the operators to prevent it.

17. We recommend that such destructive labor policies as the use of spies, the use of deputy sheriffs as paid company guards, house leases which prevent free access and exit, and individual contracts which are not free-will contracts, be abolished.

18. We recommend the recognition of the right by the union to encourage nonunion workers to join the union by the example of service to its members in the union field, by showing where the advances in the union field have helped the nonunion workers, and by peaceful and honest persuasion of every sort.

19. We recommend the recognition of the similar right of the nonunion operator, by good works and honest persuasion without force, to maintain a nonunion status.

20. We recognize the irritating effects of the check-off to the operator, especially in the collection of special fines and assessments. And we recognize its injurious effects upon the union in divorcing the problem of income from the winning of membership, and in the resulting lack of closeness of contact and of educational service and control by the higher officers to the lower officers, and to the rank and file members of the union. We believe that the unsettling effects of casting out this practice, however, might more than overbalance the gains. It may well be that the use of the check-off for the collection of fines and special assessments (except in the case of fines for violation of the agreement) should be discontinued. But we do not feel that the check-off is vital enough ever to justify a suspension of operations, whether the union is seeking to extend its use or the operators seeking to throw it out.

21. We recognize that the establishment of a policy of complete district autonomy in the negotiation of new agreements, as advocated by some operators, would result in great turmoil and a renewal of the fierce competition between districts that must inevitably lower standards. We suggest, however, that many operators in the outlying fields have a real grievance when they say that essential elements of their agreements are made for them in conferences in which they are not represented. We suggest that the two parties should work out a system of national negotiation with district agreements, which will avoid standard-cutting wars between districts and secure adequate flexibility to meet necessary district conditions.

22. We recommend a continuing umpire in each district as indispensable to the growth of good relations, since such agency tends toward the establishment of orderly processes of law in the industry, facilitates the necessary bargaining that goes on from day to day, is an educational force for both operators and union, and is a foundation for progress upon which the industry can build with confidence.

23. We call attention to the fact that the operators are not so effectively organized for labor relations as the miners, and that, both as a defensive and as a cooperative measure, there should be effective district and national organization and a national labor policy among union operators. Such an organization should bring to the surface the large amount of sound and constructive thinking that is being done among operators concerning the labor problems in the union fields; it should strengthen and stimulate the work of the various labor commissioners. It should create the office of national labor commissioner to function as do the labor commissioners in the districts, but on national problems. In this connection, attention is called to the great importance during the process of negotiating a new agreement of having negotiators of the right type—men who know the union and the industry, who know when to be aggressive and when not to be, masters of sound strategy and wise tactics, and, finally, men whose straightforwardness the union trusts.

24. We find that one of the most constructive steps that has been taken collectively by the bituminous operators has been the almost universal establishment of the office of "labor commissioner." Only the highest grade men can adequately discharge the functions and get the full possibilities out of this office.

25. We recommend much more serious concentration upon the problems growing out of the psychology of men at work, especially noting the examples of the many companies who have established good relations.

26. Specifically, we recommend more attention to the training of superintendents, foremen, and assistant foremen in problems of management, especially in dealing with labor under a union agreement. These men are closest to the miners and actually handle the grievances that arise; they therefore in large degree determine the bases on which the more general problems of labor adjustment rest.

27. Half information on topics of mutual concern ranks high among the factors that tend to mar relations. We therefore recommend a policy of publicity of facts, both within the individual mine and nationally, which would include accounting

reports by operators as recommended for in the commission's anthracite report and similar reports concerning union finances.

28. In accordance with best policy in the coal and in all other industries, we recommend the policy in each company of centralized responsibility for labor relations.

29. We recommend much closer contact and greater educational service from the district and national officers of the union to the local officers and men.

30. We believe that the union will need to depend more on facts and less on force if it is in the future to advance the interests of its members as successfully as it has in the past. We therefore suggest the importance within the union of continuous facilities for research which will collect and interpret facts and aid and enlighten union policy.

31. We particularly regret that the union has given so little serious consideration to the ways of meeting the fundamental problem of the coal industry, the problem of irregularity of production and employment, which concerns its members more deeply than any other problem observed, and on which they keenly desire that something be done. A definite effort to devise a joint system of unemployment compensation or insurance which shall offer considerable incentive toward steadiness of operation, as well as relief during payless days, will be of vital interest to the citizens of the industry.

32. We believe that the union is facing a critical transition period. It has gone through and won the struggle to become powerful. The challenge confronting it now is whether it can use great power in a responsible way to serve social ends.

33. We do not advocate nationalization as a means of meeting the national strike or other parts of the problem of labor relations.

34. We recommend against compulsory arbitration as a means of preventing a national strike, because we do not believe in discretion-made law in either the industrial or political fields, and because there is no way to enforce a compulsory award which does not involve enforced operation or enforced labor.

35. We believe that incorporation of the unions would not have the effect of binding the union to its contracts, and making it responsible, often predicted for it. Contracts can now be made if both parties wish, with effective binding power, but ordinarily neither side desires that wage contracts shall be specific enough to be legally binding through judicial enforcement. The flexibility of various State incorporation laws makes it unlikely that incorporated unions would differ practically from unincorporated. Finally, the Coronado case not only decides that a union is a legal entity for the purpose of responsibility for torts, but also holds that a union voting a strike renders itself responsible for acts growing out of the strike just as a corporation would be responsible for the acts of its officers, and that the union funds can be reached directly through a suit for damages, just as the property of a corporation can be.

36. We recommend continuous investigation and publicity by the Federal Government of the basic facts upon which industrial relations depend. Such continuous investigation should not be principally critical, in the sense of being chiefly concerned with noting cases of bad practice, but rather with making known cases of the opposite sort. This should bring about such a continuous interchange of information as to stimulate a greater sense of public responsibility and better practices by the union and the operators.

37. We recommend special compulsory investigation when the prospect of failure to renew an agreement is imminent, so that the public may have a chance to be heard before conflicts arise. Specifically, we recommend an inquiry under the authority of the President of the United States. To this end, it is suggested that all agreements should contain a clause that will provide for automatic renewal of all agreements except in regard to provisions concerning which either party may have given notice to the other 90 days in advance of the date of termination of the agreement. In case of failure to agree, a report, setting forth the factors at issue, should be made to the President, by each side, not later than 60 days before the expiration of the agreement. It is recommended that when such a report is made the President immediately inquire into the factors at issue and secure a report and award thereon made on or before the date of expiration of the agreement. The award would or would not be made public as the President would deem wise in the particular circumstances. It should be the purpose of such a report to focus upon the negotiators the irresistible moral pressure implicit in their joint obligation to furnish the public with coal.

We are confident that with a continuous orderly process of investigation and report, and if advisable with the timely injection of a definite representative of the public into the situation in case of disagreement, it will become very much more difficult for either side to adhere in any capitious way to a contention that will precipitate a tie-up of the industry.

In case a suspension occurs because of failure to reach an agreement before the expiration of an existing contract, there should be no question of the continuance of maintenance men at their occupations. Both in the interest of the industry and in that of the public every contract should provide for this contingency.

The best approach to a remedy for the evils of the general strike will not, in our judgment, be found in an immediate resort to drastic prohibitory measures. Whatever artificial gap may have developed between employer and employee, they must work together or there can be no peace and no real efficiency. The weight of opinion among operators and union officials alike is that they themselves desire to fix the fundamental terms, upon which the industry shall operate. The most thoughtful and best advised among them express great confidence of their ability to do this in an orderly way. From our survey of the statesmanship that exists in the industry, it is believed that the operators and the union are equal to this task, if once they recognize the finality of the public insistence on continuous operation and address themselves single-mindedly to bring that object to pass. It will be necessary, however, for them to find means of bringing their best statesmanship to the front in connection with the general negotiations. They can not perform this indispensable public duty unless they emancipate themselves from the atmosphere of militancy that too often characterizes their proceedings.

It is believed that the combination of continuous investigation and publicity with the possible resort to mediation at the instance of the President of the United States, may remove the necessity for more drastic emergency measures. The process here outlined should have a sobering influence that will make strongly for enforcing responsibility to the public among representatives of both the operators and the miners. Until measures for holding both sides to their responsibilities have been exhausted it will be extremely unwise for the public to embark on coercive measures of regulation of labor relations.

While it is believed that the above suggestions will encourage mutual accommodation and agreement at the time of the renewal of negotiations and will therefore lessen the chances of national strikes or suspensions, the fundamentally constructive opportunity lies in the building up of the day-to-day relations within the agreement period. Improvement in industrial relations during the life of the agreement would very considerably lessen the probability of a national strike.



# PRICES AND COST OF LIVING.

## Retail Prices of Food in the United States.

THE following tables are based on figures which have been received by the Bureau of Labor Statistics from retail dealers through monthly reports of actual selling prices.<sup>1</sup>

Table 1 shows for the United States retail prices of food, August 15, 1922, and July 15 and August 15, 1923, as well as the percentage changes in the year and in the month. For example, the price of cheese was 31.8 cents in August, 1922, 36.1 cents in July, 1923, and 36.3 cents in August, 1923. These figures show an increase of 14 per cent in the year and 1 per cent in the month.

The cost of the various articles of food,<sup>2</sup> combined, showed an increase of 5 per cent in August, 1923, as compared with August, 1922, and a decrease of 1 per cent in August, 1923, as compared with July, 1923.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE AUGUST 15, 1923, COMPARED WITH AUGUST 15, 1922, AND JULY 15, 1923.

[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<br>(+) or decrease<br>(-) Aug. 15, 1923,<br>compared with— |                   |
|--------------------------------|--------------------|--------------------------|-------------------|-------------------|---|-------------------|
|                                |                    | Aug. 15,<br>1922.        | July 15,<br>1923. | Aug. 15,<br>1923. | Aug. 15,<br>1922.   | July 15,<br>1923. |
|                                |                    | <i>Cents.</i>            | <i>Cents.</i>     | <i>Cents.</i>     |   |                   |
| Sirloin steak.....             | Pound.....         | 39.0                     | 41.0              | 41.1              | +5  | +0.2              |
| Round steak.....               | do.....            | 34.1                     | 35.5              | 35.5              | +4  | 0                 |
| Rib roast.....                 | do.....            | 28.2                     | 29.3              | 29.2              | +4  | -0.3              |
| Chuck roast.....               | do.....            | 20.0                     | 20.8              | 20.8              | +4  | 0                 |
| Plate beef.....                | do.....            | 12.6                     | 12.8              | 12.7              | +1  | -1                |
| Pork chops.....                | do.....            | 35.1                     | 31.2              | 32.1              | -9  | +3                |
| Bacon.....                     | do.....            | 40.6                     | 39.0              | 39.2              | -3  | +1                |
| Ham.....                       | do.....            | 50.8                     | 46.0              | 46.2              | -9  | +0.4              |
| Lamb, leg of.....              | do.....            | 36.0                     | 38.5              | 37.2              | +3  | -3                |
| Hens.....                      | do.....            | 34.9                     | 34.8              | 34.4              | -1  | -1                |
| Salmon, canned, red.....       | do.....            | 13.0                     | 31.1              | 31.2              | -2  | +0.3              |
| Milk, fresh.....               | Quart.....         | 13.0                     | 13.6              | 13.7              | +5  | +1                |
| Milk, evaporated.....          | 15-16-oz. can..... | 10.8                     | 12.2              | 12.2              | +13   | 0                 |
| Butter.....                    | Pound.....         | 44.2                     | 49.1              | 51.8              | +17   | +5                |
| Oleomargarine.....             | do.....            | 27.6                     | 29.1              | 29.2              | +6  | +0.3              |
| Nut margarine.....             | do.....            | 26.6                     | 27.4              | 27.6              | +4  | +1                |
| Cheese.....                    | do.....            | 31.8                     | 36.1              | 36.3              | +14   | +1                |
| Lard.....                      | do.....            | 17.2                     | 17.1              | 17.1              | -1  | 0                 |
| Vegetable lard substitute..... | do.....            | 22.9                     | 22.7              | 22.8              | -0.4  | +0.4              |
| Eggs, strictly fresh.....      | Dozen.....         | 37.1                     | 37.1              | 41.5              | +12   | +12               |
| Bread.....                     | Pound.....         | 8.7                      | 8.8               | 8.7               | 0   | -1                |
| Flour.....                     | do.....            | 5.1                      | 4.7               | 4.5               | -12   | -4                |
| Corn meal.....                 | do.....            | 3.9                      | 4.1               | 4.1               | +5  | 0                 |
| Rolled oats.....               | do.....            | 8.7                      | 8.8               | 8.8               | +1  | 0                 |
| Corn flakes.....               | 8-oz. pkg.....     | 9.8                      | 9.7               | 9.7               | -1  | 0                 |
| Wheat cereal.....              | 28-oz. pkg.....    | 25.7                     | 24.4              | 24.4              | -5  | 0                 |
| Macaroni.....                  | Pound.....         | 20.0                     | 19.8              | 19.7              | -2  | -1                |

<sup>1</sup> In addition to monthly retail prices of food and coal, the bureau secures prices of gas and dry goods from each of 51 cities and for electricity from 32 cities. These prices are published at quarterly intervals in the MONTHLY LABOR REVIEW.

<sup>2</sup> The following 22 articles, weighted according to the consumption of the average family, have been used from January, 1913, to December, 1920: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea. The remainder of the 43 articles shown in Tables 1 and 2 have been included in the weighted aggregates for each month, beginning with January, 1921.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE AUGUST 15, 1923, COMPARED WITH AUGUST 15, 1922, AND JULY 15, 1923—Concluded.

| Article.                                 | Unit.          | Average retail price on— |                   |                   | Per cent of increase<br>(+) or decrease<br>(-) Aug. 15, 1923,<br>compared with— |                   |
|--|----------------|--------------------------|-------------------|-------------------|---|-------------------|
|  |                | Aug. 15,<br>1922.        | July 15,<br>1923. | Aug. 15,<br>1923. | Aug. 15,<br>1922.   | July 15,<br>1923. |
|  |                | <i>Cents.</i>            | <i>Cents.</i>     | <i>Cents.</i>     |   |                   |
| Rice.....                                | Pound.....     | 9.6                      | 9.4               | 9.4               | -2  | 0                 |
| Beans, navy.....                         | do.....        | 11.3                     | 11.3              | 11.0              | -3  | -3                |
| Potatoes.....                            | do.....        | 2.6                      | 4.2               | 3.7               | +42   | -12               |
| Onions.....                              | do.....        | 5.9                      | 7.4               | 6.5               | +10   | -12               |
| Cabbage.....                             | do.....        | 3.9                      | 5.4               | 4.8               | +23   | -11               |
| Beans, baked.....                        | No. 2 can..... | 13.4                     | 12.9              | 12.9              | -4  | 0                 |
| Corn, canned.....                        | do.....        | 15.4                     | 15.4              | 15.4              | 0   | 0                 |
| Peas, canned.....                        | do.....        | 17.6                     | 17.6              | 17.6              | 0   | 0                 |
| Tomatoes, canned.....                    | do.....        | 13.6                     | 13.0              | 13.0              | -4  | 0                 |
| Sugar, granulated.....                   | Pound.....     | 8.1                      | 10.5              | 9.6               | +19   | -9                |
| Tea.....                                 | do.....        | 68.3                     | 69.3              | 69.7              | +2  | +1                |
| Coffee.....                              | do.....        | 36.2                     | 37.7              | 37.6              | +4  | -0.3              |
| Prunes.....                              | do.....        | 20.8                     | 19.2              | 19.0              | -9  | -1                |
| Raisins.....                             | do.....        | 23.2                     | 17.5              | 17.4              | -25   | -1                |
| Bananas.....                             | Dozen.....     | 34.2                     | 38.8              | 38.4              | +12   | -1                |
| Oranges.....                             | do.....        | 64.8                     | 53.1              | 50.9              | -21   | -4                |
| All articles combined <sup>1</sup> ..... |                |                          |                   |                   | +5  | -1                |

<sup>1</sup> See note 2, p. 26.

Table 2 shows for the United States average retail prices of specified food articles on August 15, 1913 and 1914, and on August 15 of each year from 1918 to 1923, together with the percentage changes in August of each of these specified years compared with August, 1913. For example, the price of butter was: 35.4 cents in August, 1913; 36.1 cents in August, 1914; 53.9 cents in August, 1918; 64.1 cents in August, 1919; 67 cents in August, 1920; 51.2 cents in August, 1921; 44.2 cents in August, 1922; and 51.8 cents in August, 1923.

As compared with the average price in August, 1913, these figures show the following percentage increases: 2 per cent in August, 1914; 52 per cent in August, 1918; 81 per cent in August, 1919; 89 per cent in August, 1920; 45 per cent in August, 1921; 25 per cent in August, 1922; and 46 per cent in August, 1923.

The cost of the various articles of food combined showed an increase of 45 per cent in August, 1923, 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.                                 | Unit.      | Average retail price Aug. 15— |      |      |      |      |      |      |      | Per cent of increase (+) or decrease<br>(-) Aug. 15 of each specified year<br>compared with Aug. 15, 1913. |      |      |      |      |      |      |  |
|--|------------|-------------------------------|------|------|------|------|------|------|------|--|------|------|------|------|------|------|--|
|  |            | 1913                          | 1914 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1914   | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 |  |
|  |            | Cts.                          | Cts. | Cts. | Cts. | Cts. | Cts. | Cts. |      |  |      |      |      |      |      |      |  |
| Sirloin steak.....                       | Pound..... | 26.4                          | 27.9 | 41.5 | 42.1 | 47.2 | 40.0 | 39.0 | 41.1 | +6   | +57  | +59  | +79  | +52  | +48  | +56  |  |
| Round steak.....                         | do.....    | 23.2                          | 25.1 | 39.6 | 39.5 | 43.6 | 35.6 | 34.1 | 35.5 | +8   | +71  | +70  | +88  | +53  | +47  | +53  |  |
| Rib roast.....                           | do.....    | 20.2                          | 21.4 | 32.6 | 32.4 | 34.9 | 29.1 | 28.2 | 29.2 | +6   | +61  | +60  | +73  | +44  | +40  | +45  |  |
| Chuck roast.....                         | do.....    | 16.5                          | 17.5 | 28.3 | 26.6 | 27.4 | 20.8 | 20.0 | 20.8 | +6   | +72  | +61  | +66  | +26  | +21  | +26  |  |
| Plate beef.....                          | do.....    | 12.2                          | 13.0 | 21.7 | 19.3 | 18.5 | 13.5 | 12.6 | 12.7 | +7   | +78  | +58  | +52  | +11  | +3   | +4   |  |
| Pork chops.....                          | do.....    | 21.9                          | 25.1 | 42.2 | 46.9 | 45.9 | 38.0 | 35.1 | 32.1 | +15  | +93  | +114 | +110 | +74  | +60  | +47  |  |
| Bacon.....                               | do.....    | 28.3                          | 28.8 | 54.0 | 57.7 | 54.9 | 43.7 | 40.6 | 39.2 | +2   | +91  | +104 | +94  | +54  | +43  | +39  |  |
| Ham.....                                 | do.....    | 28.4                          | 29.1 | 48.5 | 55.9 | 60.0 | 52.9 | 50.8 | 46.2 | +2   | +71  | +100 | +111 | +86  | +79  | +63  |  |
| Lamb.....                                | do.....    | 18.9                          | 20.6 | 36.9 | 36.4 | 39.7 | 34.3 | 36.0 | 37.2 | +9   | +95  | +93  | +110 | +81  | +91  | +97  |  |
| Hens.....                                | do.....    | 21.5                          | 22.1 | 38.6 | 41.8 | 45.0 | 38.9 | 34.9 | 34.4 | +3   | +80  | +94  | +109 | +81  | +62  | +60  |  |
| Salmon (canned)<br>red.                  | do.....    | 30.2                          | 32.3 | 38.8 | 36.0 | 31.9 | 31.2 |      |      |  |      |      |      |      |      |      |  |
| Milk, fresh.....                         | Quart..... | 8.8                           | 8.9  | 13.6 | 15.5 | 17.0 | 14.3 | 13.0 | 13.7 | +1   | +55  | +76  | +93  | +63  | +47  | +56  |  |
| Milk (evaporated).<br>(2)                | do.....    | 16.3                          | 15.6 | 13.5 | 10.8 | 12.2 |      |      |      |  |      |      |      |      |      |      |  |
| Butter.....                              | Pound..... | 35.4                          | 36.1 | 53.9 | 64.1 | 67.0 | 51.2 | 44.2 | 51.8 | +2   | +52  | +81  | +89  | +45  | +25  | +46  |  |
| Oleomargarine.....                       | do.....    | 42.5                          | 42.1 | 29.8 | 27.6 | 29.2 |      |      |      |  |      |      |      |      |      |      |  |
| Nut margarine.....                       | do.....    | 35.8                          | 36.0 | 27.8 | 26.6 | 27.6 |      |      |      |  |      |      |      |      |      |      |  |
| Cheese.....                              | do.....    | 22.0                          | 22.8 | 34.6 | 43.5 | 40.5 | 32.6 | 31.8 | 36.3 | +4   | +57  | +98  | +84  | +48  | +45  | +65  |  |
| Lard.....                                | do.....    | 16.1                          | 15.6 | 33.1 | 42.0 | 27.9 | 18.1 | 17.2 | 17.1 | -3   | +106 | +161 | +73  | +12  | +7   | +6   |  |
| Vegetable lard sub-<br>stitute.          | do.....    | 40.5                          | 34.5 | 21.1 | 22.9 | 22.8 |      |      |      |  |      |      |      |      |      |      |  |
| Eggs, strictly fresh                     | Dozen..... | 33.0                          | 33.2 | 53.6 | 60.2 | 63.6 | 47.6 | 37.1 | 41.5 | +1   | +62  | +82  | +93  | +44  | +12  | +26  |  |
| Bread.....                               | Pound..... | 5.6                           | 6.3  | 9.9  | 10.1 | 11.9 | 9.7  | 8.7  | 8.7  | +13  | +77  | +80  | +113 | +73  | +55  | +55  |  |
| Flour.....                               | do.....    | 3.3                           | 3.5  | 6.8  | 7.4  | 8.4  | 5.7  | 5.1  | 4.5  | +6   | +106 | +124 | +155 | +73  | +55  | +36  |  |
| Corn meal.....                           | do.....    | 3.0                           | 3.1  | 6.8  | 6.6  | 6.9  | 4.5  | 3.9  | 4.1  | +3   | +127 | +120 | +130 | +50  | +30  | +37  |  |
| Rollod oats.....                         | do.....    | 8.9                           | 11.2 | 10.0 | 8.7  | 8.8  |      |      |      |  |      |      |      |      |      |      |  |
| Corn flakes.....<br>(3)                  | do.....    | 14.0                          | 14.6 | 12.2 | 9.8  | 9.7  |      |      |      |  |      |      |      |      |      |      |  |
| Wheat cereal.....<br>(4)                 | do.....    | 25.1                          | 30.3 | 29.8 | 25.7 | 24.4 |      |      |      |  |      |      |      |      |      |      |  |
| Macaroni.....                            | Pound..... | 19.3                          | 21.7 | 20.7 | 20.0 | 19.7 |      |      |      |  |      |      |      |      |      |      |  |
| Rice.....                                | do.....    | 8.7                           | 8.8  | 13.4 | 15.5 | 18.3 | 8.8  | 9.6  | 9.4  | +1   | +54  | +78  | +110 | +1   | +10  | +8   |  |
| Beans, navy.....                         | do.....    | 17.1                          | 12.3 | 11.7 | 7.9  | 11.3 | 11.0 |      |      |  |      |      |      |      |      |      |  |
| Potatoes.....                            | do.....    | 1.9                           | 1.9  | 3.9  | 5.0  | 5.0  | 4.2  | 2.6  | 3.7  | 0  | +105 | +163 | +163 | +121 | +37  | +95  |  |
| Onions.....                              | do.....    | 5.5                           | 7.8  | 5.6  | 5.3  | 5.9  | 6.5  |      |      |  |      |      |      |      |      |      |  |
| Cabbage.....                             | do.....    | 5.3                           | 4.4  | 6.1  | 3.9  | 4.8  |      |      |      |  |      |      |      |      |      |      |  |
| Beans, baked.....<br>(5)                 | do.....    | 17.1                          | 16.8 | 14.2 | 13.4 | 12.9 |      |      |      |  |      |      |      |      |      |      |  |
| Corn, canned.....<br>(5)                 | do.....    | 19.1                          | 18.8 | 16.0 | 15.4 | 15.4 |      |      |      |  |      |      |      |      |      |      |  |
| Peas, canned.....<br>(5)                 | do.....    | 19.1                          | 19.4 | 17.6 | 17.6 | 17.6 |      |      |      |  |      |      |      |      |      |      |  |
| Tomatoes, canned.<br>(5)                 | do.....    | 15.9                          | 15.2 | 12.0 | 13.6 | 13.0 |      |      |      |  |      |      |      |      |      |      |  |
| Sugar, granulated.....                   | Pound..... | 5.6                           | 7.9  | 9.3  | 11.1 | 12.2 | 7.5  | 8.1  | 9.6  | +41  | +66  | +98  | +309 | +34  | +45  | +71  |  |
| Tea.....                                 | do.....    | 54.4                          | 54.7 | 65.8 | 70.7 | 74.4 | 69.2 | 68.3 | 69.7 | +1   | +21  | +30  | +37  | +27  | +25  | +28  |  |
| Coffee.....                              | do.....    | 29.8                          | 29.7 | 30.1 | 47.8 | 48.4 | 35.6 | 36.2 | 37.6 | -0.3   | +1   | +60  | +62  | +19  | +21  | +26  |  |
| Prunes.....                              | do.....    | 17.1                          | 27.4 | 28.3 | 18.8 | 20.8 | 19.0 |      |      |  |      |      |      |      |      |      |  |
| Raisins.....                             | do.....    | 15.3                          | 18.0 | 28.9 | 30.2 | 23.2 | 17.4 |      |      |  |      |      |      |      |      |      |  |
| Bananas.....                             | Dozen..... | 39.1                          | 45.9 | 38.6 | 34.2 | 38.4 |      |      |      |  |      |      |      |      |      |      |  |
| Oranges.....                             | do.....    | 53.7                          | 65.9 | 53.5 | 64.8 | 50.9 |      |      |      |  |      |      |      |      |      |      |  |
| All articles com-<br>bined. <sup>6</sup> |            |                               |      |      |      |      |      |      |      | +6   | +70  | +90  | +105 | +53  | +37  | +45  |  |

<sup>1</sup> Both pink and red.

<sup>2</sup> 15-16-ounce can.

<sup>3</sup> 8-ounce package.

<sup>4</sup> 28-ounce package.

<sup>5</sup> No. 2 can.

<sup>6</sup> See note 2, p. 26.

Table 3 shows the changes in the retail price of each of 22 articles of food,<sup>3</sup> as well as the changes in the amounts of these articles that could be purchased for \$1, each year, 1913 to 1922, and in August, 1923.

<sup>3</sup> Although monthly prices of 43 food articles have been secured since January, 1919, prices of only 22 of these articles have been secured each month since 1913.



# RETAIL PRICES OF FOOD.

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TABLE 3.—AVERAGE RETAIL PRICES OF SPECIFIED ARTICLES OF FOOD AND AMOUNT PURCHASABLE FOR \$1, IN EACH YEAR, 1913 TO 1922, AND IN AUGUST, 1923.

| 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. |
|                 | Per lb.               | Lbs.          | Per lb.               | Lbs.          | Per lb.               | Lbs.          | Per lb.               | Lbs.          | Per lb.               | Lbs.          | Per lb.               | Lbs.          |
| 1913.....       | \$0.254               | 3.9           | \$0.223               | 4.5           | \$0.198               | 5.1           | \$0.160               | 6.3           | \$0.121               | 8.3           | \$0.210               | 4.8           |
| 1914.....       | .259                  | 3.9           | .236                  | 4.2           | .204                  | 4.9           | .167                  | 6.0           | .126                  | 7.9           | .220                  | 4.5           |
| 1915.....       | .257                  | 3.9           | .230                  | 4.3           | .201                  | 5.0           | .161                  | 6.2           | .121                  | 8.3           | .203                  | 4.9           |
| 1916.....       | .273                  | 3.7           | .245                  | 4.1           | .212                  | 4.7           | .171                  | 5.8           | .128                  | 7.8           | .227                  | 4.4           |
| 1917.....       | .315                  | 3.2           | .290                  | 3.4           | .249                  | 4.0           | .209                  | 4.8           | .157                  | 6.4           | .319                  | 3.1           |
| 1918.....       | .389                  | 2.6           | .369                  | 2.7           | .307                  | 3.3           | .266                  | 3.8           | .206                  | 4.9           | .390                  | 2.6           |
| 1919.....       | .417                  | 2.4           | .389                  | 2.6           | .325                  | 3.1           | .270                  | 3.7           | .202                  | 5.0           | .423                  | 2.4           |
| 1920.....       | .437                  | 2.3           | .395                  | 2.5           | .332                  | 3.0           | .262                  | 3.8           | .183                  | 5.5           | .423                  | 2.4           |
| 1921.....       | .388                  | 2.6           | .344                  | 2.9           | .291                  | 3.4           | .212                  | 4.7           | .143                  | 7.0           | .349                  | 2.9           |
| 1922.....       | .374                  | 2.7           | .323                  | 3.1           | .276                  | 3.6           | .197                  | 5.1           | .128                  | 7.8           | .330                  | 3.0           |
| 1923: August... | .411                  | 2.4           | .355                  | 2.8           | .292                  | 3.4           | .208                  | 4.8           | .127                  | 7.9           | .321                  | 3.1           |

|                 | Bacon.  |      | Ham.    |      | Lard.   |      | Hens.   |      | Eggs.   |       | Butter. |      |
|-----------------|---------|------|---------|------|---------|------|---------|------|---------|-------|---------|------|
|                 | Per lb. | Lbs. | Per lb. | Lbs. | Per lb. | Lbs. | Per lb. | Lbs. | Per dz. | Dozs. | Per lb. | Lbs. |
| 1913.....       | \$0.270 | 3.7  | \$0.269 | 3.7  | \$0.158 | 6.3  | \$0.213 | 4.7  | \$0.345 | 2.9   | \$0.383 | 2.6  |
| 1914.....       | .275    | 3.6  | .273    | 3.7  | .156    | 6.4  | .218    | 4.6  | .353    | 2.8   | .362    | 2.8  |
| 1915.....       | .269    | 3.7  | .261    | 3.8  | .148    | 6.8  | .208    | 4.8  | .341    | 2.9   | .358    | 2.8  |
| 1916.....       | .287    | 3.5  | .294    | 3.4  | .175    | 5.7  | .236    | 4.2  | .375    | 2.7   | .394    | 2.5  |
| 1917.....       | .410    | 2.4  | .382    | 2.6  | .276    | 3.6  | .286    | 3.5  | .481    | 2.1   | .487    | 2.1  |
| 1918.....       | .529    | 1.9  | .479    | 2.1  | .333    | 3.0  | .377    | 2.7  | .569    | 1.8   | .577    | 1.7  |
| 1919.....       | .554    | 1.8  | .534    | 1.9  | .369    | 2.7  | .411    | 2.4  | .628    | 1.6   | .678    | 1.5  |
| 1920.....       | .523    | 1.9  | .555    | 1.8  | .295    | 3.4  | .447    | 2.2  | .681    | 1.5   | .701    | 1.4  |
| 1921.....       | .427    | 2.3  | .488    | 2.0  | .180    | 5.6  | .397    | 2.5  | .509    | 2.0   | .517    | 1.9  |
| 1922.....       | .398    | 2.5  | .488    | 2.0  | .170    | 5.9  | .360    | 2.8  | .444    | 2.3   | .479    | 2.1  |
| 1923: August... | .392    | 2.6  | .462    | 2.2  | .171    | 5.8  | .344    | 2.9  | .415    | 2.4   | .518    | 1.9  |

|                 | Cheese. |      | Milk.   |      | Bread.  |      | Flour.  |      | Corn meal. |      | Rice.   |      |
|-----------------|---------|------|---------|------|---------|------|---------|------|------------|------|---------|------|
|                 | Per lb. | Lbs. | Per qt. | Qts. | Per lb. | Lbs. | Per lb. | Lbs. | Per lb.    | Lbs. | Per lb. | Lbs. |
| 1913.....       | \$0.221 | 4.5  | \$0.089 | 11.2 | \$0.056 | 17.9 | \$0.033 | 30.3 | \$0.030    | 33.3 | \$0.087 | 11.5 |
| 1914.....       | .229    | 4.4  | .089    | 11.2 | .063    | 15.9 | .034    | 29.4 | .032       | 31.3 | .088    | 11.4 |
| 1915.....       | .233    | 4.3  | .088    | 11.4 | .070    | 14.3 | .042    | 23.8 | .033       | 30.3 | .091    | 11.0 |
| 1916.....       | .258    | 3.9  | .091    | 11.0 | .073    | 13.7 | .044    | 22.7 | .034       | 29.4 | .091    | 11.0 |
| 1917.....       | .332    | 3.0  | .112    | 9.0  | .092    | 10.9 | .070    | 14.3 | .058       | 17.2 | .104    | 9.6  |
| 1918.....       | .359    | 2.8  | .139    | 7.2  | .098    | 10.2 | .067    | 14.9 | .068       | 14.7 | .129    | 7.8  |
| 1919.....       | .426    | 2.3  | .155    | 6.5  | .100    | 10.0 | .072    | 13.9 | .064       | 15.6 | .151    | 6.6  |
| 1920.....       | .416    | 2.4  | .167    | 6.0  | .115    | 8.7  | .081    | 12.3 | .065       | 15.4 | .174    | 5.7  |
| 1921.....       | .340    | 2.9  | .146    | 6.8  | .099    | 10.1 | .058    | 17.2 | .045       | 22.2 | .095    | 10.5 |
| 1922.....       | .329    | 3.0  | .131    | 7.6  | .087    | 11.5 | .051    | 19.6 | .039       | 25.6 | .085    | 10.5 |
| 1923: August... | .363    | 2.8  | .137    | 7.3  | .087    | 11.5 | .045    | 22.2 | .041       | 24.4 | .094    | 10.6 |

|                 | Potatoes. |      | Sugar.  |      | Coffee. |      | Tea.    |      |
|-----------------|-----------|------|---------|------|---------|------|---------|------|
|                 | Per lb.   | Lbs. | Per lb. | Lbs. | Per lb. | Lbs. | Per lb. | Lbs. |
| 1913.....       | \$0.017   | 58.8 | \$0.055 | 18.2 | \$0.298 | 3.4  | \$0.544 | 1.8  |
| 1914.....       | .018      | 55.6 | .059    | 16.9 | .297    | 3.4  | .546    | 1.8  |
| 1915.....       | .015      | 66.7 | .066    | 15.2 | .300    | 3.3  | .545    | 1.8  |
| 1916.....       | .027      | 37.0 | .080    | 12.5 | .299    | 3.3  | .546    | 1.8  |
| 1917.....       | .043      | 23.3 | .093    | 10.8 | .302    | 3.3  | .582    | 1.7  |
| 1918.....       | .032      | 31.3 | .097    | 10.3 | .305    | 3.3  | .648    | 1.5  |
| 1919.....       | .038      | 26.3 | .113    | 8.8  | .433    | 2.3  | .701    | 1.4  |
| 1920.....       | .063      | 15.9 | .194    | 5.2  | .470    | 2.1  | .733    | 1.4  |
| 1921.....       | .031      | 32.3 | .080    | 12.5 | .363    | 2.8  | .697    | 1.4  |
| 1922.....       | .028      | 35.7 | .073    | 13.7 | .361    | 2.8  | .681    | 1.5  |
| 1923: August... | .037      | 27.0 | .096    | 10.4 | .376    | 2.7  | .697    | 1.4  |

## 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 each of 22 food articles,<sup>4</sup> by years from 1907 to 1922 and by months from January 1922,<sup>5</sup> through August, 1923. These index numbers, or relative prices, are based on the year 1913 as 100 and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of rib roast for the year 1920 was 168, which means that the average money price for the year 1920 was 68 per cent higher than the average money price for the year 1913. The relative price of bacon for the year 1919 was 205 and for the year 1920, 194, which figures show a drop of 11 points but a decrease of only 5 per cent in the year.

In the last column of Table 4 are given index numbers showing the changes in the retail cost of all articles of food combined. From January, 1913, to December, 1920, 22 articles have been included in the index, and beginning with January, 1921, 43 articles have been used.<sup>4</sup> For an explanation of the method used in making the link between the cost of the market basket of 22 articles, weighted according to the average family consumption in 1901, and the cost of the market basket based on 43 articles and weighted according to the consumption in 1918, see MONTHLY LABOR REVIEW for March, 1921 (p. 25).

The curve shown in the chart on page 32 pictures more readily to the eye the changes in the cost of the family market basket and the trend in the cost of the food budget than do the index numbers given in the table. The retail cost of the food articles included in the index has decreased since July, 1920, until the curve is brought down in August, 1923, to approximately where it was in July, 1917. The chart has been shown on the logarithmic scale,<sup>6</sup> because the percentages of increase or decrease are more accurately shown than on the arithmetic scale.

<sup>4</sup> See note 2, p. 26.

<sup>5</sup> For index numbers of each month, January, 1913, to December, 1920, see MONTHLY LABOR REVIEW for February, 1921, pp. 19-21.

<sup>6</sup> For a discussion of the logarithmic chart see article on "Comparison of arithmetic and ratio charts" by Lucian W. Chaney, MONTHLY LABOR REVIEW for March, 1919, pp. 20-34. Also "The 'ratio' charts," by Prof. Irving Fisher, reprinted from Quarterly Publications of the American Statistical Association, June, 1917, 24 pp.

TABLE 4.—INDEX NUMBERS SHOWING CHANGES IN THE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN THE UNITED STATES, BY YEARS, 1907 TO 1922, BY MONTHS FOR 1922, AND FOR JANUARY TO AUGUST, 1923.

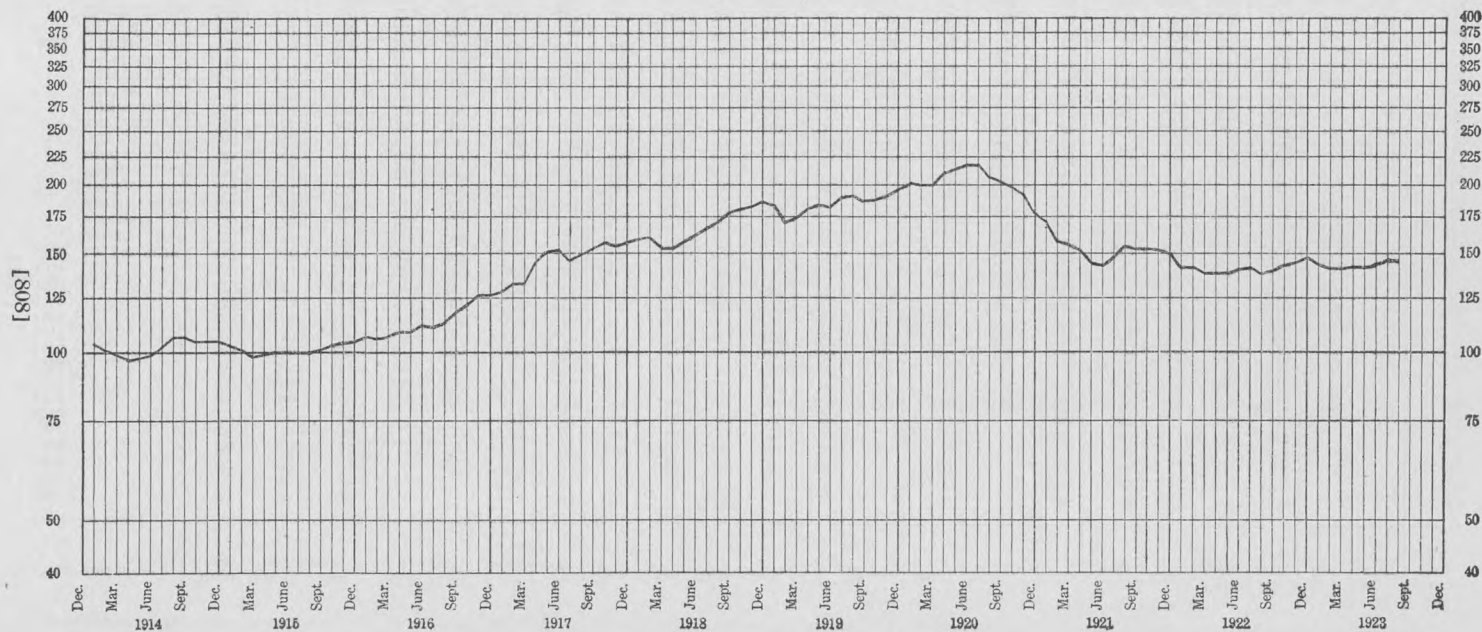
[Average for year 1913=100.]

| Year and month.         | Sirloin<br>steak. | Round<br>steak. | Rib<br>roast. | Chuck<br>roast. | Plate<br>beef. | Pork<br>chops. | Bacon. | Ham. | Lard. | Hens. | Eggs. | But-<br>ter. | Cheese. | Milk. | Bread. | Flour. | Corn<br>meal. | Rice. | Pota-<br>toes. | Su-<br>gar. | Cof-<br>fee. | Tea.  | All<br>articles<br>com-<br>bined. |
|-------------------------|-------------------|-----------------|---------------|-----------------|----------------|----------------|--------|------|-------|-------|-------|--------------|---------|-------|--------|--------|---------------|-------|----------------|-------------|--------------|-------|-----------------------------------|
| 1907.....               | 71                | 68              | 76            | .....           | .....          | 74             | 74     | 76   | 81    | 81    | 84    | 85           | .....   | 87    | .....  | 95     | 88            | ..... | 105            | 105         | .....        | ..... | 82                                |
| 1908.....               | 73                | 71              | 78            | .....           | .....          | 76             | 77     | 78   | 80    | 83    | 86    | 86           | .....   | 90    | .....  | 102    | 92            | ..... | 111            | 108         | .....        | ..... | 84                                |
| 1909.....               | 77                | 74              | 81            | .....           | .....          | 83             | 83     | 82   | 90    | 89    | 93    | 90           | .....   | 91    | .....  | 109    | 94            | ..... | 112            | 107         | .....        | ..... | 89                                |
| 1910.....               | 80                | 78              | 85            | .....           | .....          | 92             | 95     | 91   | 104   | 94    | 98    | 94           | .....   | 95    | .....  | 108    | 95            | ..... | 101            | 109         | .....        | ..... | 93                                |
| 1911.....               | 81                | 79              | 85            | .....           | .....          | 85             | 91     | 89   | 88    | 91    | 94    | 88           | .....   | 96    | .....  | 102    | 94            | ..... | 130            | 117         | .....        | ..... | 92                                |
| 1912.....               | 91                | 89              | 94            | .....           | .....          | 91             | 91     | 91   | 94    | 93    | 99    | 98           | .....   | 97    | .....  | 105    | 102           | ..... | 135            | 115         | .....        | ..... | 98                                |
| 1913.....               | 100               | 100             | 100           | 100             | 100            | 100            | 100    | 100  | 100   | 100   | 100   | 100          | 100     | 100   | 100    | 100    | 100           | 100   | 100            | 100         | 100          | 100   | 100                               |
| 1914.....               | 102               | 106             | 103           | 104             | 104            | 105            | 102    | 102  | 99    | 102   | 102   | 94           | 104     | 100   | 113    | 104    | 105           | 101   | 108            | 108         | 100          | 100   | 102                               |
| 1915.....               | 101               | 103             | 101           | 101             | 100            | 96             | 100    | 97   | 93    | 97    | 99    | 93           | 105     | 99    | 125    | 126    | 108           | 104   | 89             | 120         | 101          | 100   | 101                               |
| 1916.....               | 108               | 110             | 107           | 107             | 106            | 108            | 106    | 109  | 111   | 111   | 109   | 103          | 117     | 102   | 130    | 135    | 113           | 105   | 159            | 146         | 100          | 100   | 114                               |
| 1917.....               | 124               | 130             | 126           | 131             | 130            | 152            | 152    | 142  | 175   | 134   | 139   | 127          | 150     | 125   | 164    | 211    | 192           | 119   | 253            | 169         | 101          | 107   | 146                               |
| 1918.....               | 153               | 165             | 155           | 166             | 170            | 186            | 196    | 178  | 211   | 177   | 165   | 151          | 162     | 156   | 175    | 203    | 227           | 148   | 188            | 176         | 102          | 119   | 168                               |
| 1919.....               | 164               | 174             | 164           | 169             | 167            | 201            | 205    | 199  | 234   | 193   | 182   | 177          | 193     | 174   | 179    | 218    | 213           | 174   | 224            | 205         | 145          | 129   | 186                               |
| 1920.....               | 172               | 177             | 168           | 164             | 151            | 201            | 194    | 206  | 187   | 210   | 197   | 183          | 188     | 188   | 205    | 245    | 217           | 200   | 371            | 353         | 158          | 135   | 203                               |
| 1921.....               | 153               | 154             | 147           | 133             | 118            | 166            | 158    | 181  | 114   | 186   | 148   | 135          | 154     | 164   | 177    | 176    | 150           | 109   | 182            | 145         | 122          | 128   | 153                               |
| 1922: Av. for year..... | 147               | 145             | 139           | 123             | 106            | 157            | 147    | 181  | 108   | 169   | 129   | 125          | 149     | 147   | 155    | 155    | 130           | 109   | 165            | 133         | 121          | 125   | 142                               |
| January.....            | 139               | 136             | 135           | 119             | 106            | 138            | 139    | 164  | 97    | 173   | 145   | 118          | 149     | 153   | 157    | 148    | 130           | 107   | 194            | 113         | 120          | 126   | 142                               |
| February.....           | 139               | 135             | 134           | 118             | 106            | 140            | 140    | 173  | 101   | 173   | 140   | 120          | 149     | 148   | 154    | 155    | 130           | 107   | 194            | 116         | 119          | 125   | 142                               |
| March.....              | 141               | 138             | 136           | 121             | 107            | 149            | 144    | 185  | 109   | 177   | 92    | 120          | 149     | 146   | 155    | 161    | 130           | 107   | 182            | 118         | 119          | 124   | 139                               |
| April.....              | 143               | 141             | 138           | 122             | 107            | 157            | 147    | 188  | 107   | 177   | 92    | 118          | 145     | 143   | 155    | 161    | 130           | 108   | 171            | 122         | 120          | 124   | 139                               |
| May.....                | 148               | 146             | 141           | 124             | 107            | 164            | 147    | 191  | 108   | 177   | 97    | 117          | 139     | 140   | 157    | 161    | 127           | 109   | 176            | 120         | 120          | 125   | 139                               |
| June.....               | 151               | 150             | 142           | 126             | 107            | 161            | 150    | 193  | 109   | 173   | 99    | 117          | 141     | 140   | 157    | 161    | 130           | 110   | 206            | 129         | 121          | 125   | 141                               |
| July.....               | 154               | 153             | 144           | 127             | 106            | 164            | 150    | 194  | 109   | 168   | 104   | 119          | 143     | 144   | 157    | 158    | 130           | 110   | 212            | 138         | 121          | 125   | 142                               |
| August.....             | 154               | 153             | 142           | 125             | 104            | 167            | 150    | 189  | 109   | 164   | 108   | 115          | 144     | 146   | 155    | 155    | 130           | 110   | 153            | 147         | 121          | 126   | 139                               |
| September.....          | 152               | 151             | 142           | 125             | 104            | 173            | 150    | 180  | 109   | 164   | 130   | 122          | 145     | 147   | 155    | 148    | 130           | 110   | 135            | 144         | 121          | 125   | 140                               |
| October.....            | 151               | 148             | 141           | 124             | 106            | 174            | 151    | 177  | 111   | 163   | 157   | 133          | 154     | 149   | 155    | 145    | 130           | 110   | 129            | 144         | 122          | 125   | 143                               |
| November.....           | 147               | 144             | 139           | 123             | 105            | 157            | 151    | 172  | 111   | 159   | 187   | 143          | 161     | 151   | 155    | 145    | 130           | 109   | 124            | 147         | 122          | 126   | 145                               |
| December.....           | 145               | 141             | 138           | 121             | 105            | 140            | 149    | 169  | 111   | 158   | 193   | 157          | 166     | 154   | 154    | 148    | 133           | 109   | 124            | 151         | 124          | 126   | 144                               |
| 1923: January.....      | 146               | 142             | 139           | 123             | 107            | 140            | 147    | 168  | 110   | 162   | 161   | 154          | 169     | 154   | 155    | 148    | 133           | 109   | 124            | 151         | 124          | 126   | 147                               |
| February.....           | 146               | 141             | 139           | 122             | 106            | 137            | 146    | 167  | 110   | 167   | 134   | 151          | 170     | 154   | 155    | 148    | 133           | 108   | 124            | 158         | 126          | 127   | 142                               |
| March.....              | 147               | 142             | 139           | 122             | 106            | 135            | 145    | 167  | 110   | 168   | 112   | 150          | 168     | 153   | 155    | 145    | 133           | 108   | 129            | 185         | 127          | 127   | 142                               |
| April.....              | 149               | 145             | 140           | 123             | 105            | 135            | 145    | 168  | 111   | 169   | 100   | 150          | 164     | 151   | 152    | 155    | 148           | 133   | 108            | 147         | 193          | 128   | 143                               |
| May.....                | 152               | 148             | 142           | 124             | 105            | 143            | 145    | 168  | 109   | 170   | 102   | 136          | 161     | 152   | 155    | 145    | 133           | 108   | 159            | 204         | 128          | 127   | 143                               |
| June.....               | 158               | 155             | 145           | 128             | 104            | 142            | 144    | 169  | 109   | 166   | 103   | 131          | 163     | 152   | 155    | 145    | 133           | 108   | 188            | 202         | 127          | 128   | 144                               |
| July.....               | 161               | 159             | 148           | 130             | 106            | 149            | 144    | 171  | 108   | 163   | 108   | 128          | 163     | 153   | 157    | 142    | 137           | 108   | 247            | 191         | 127          | 127   | 147                               |
| August.....             | 162               | 159             | 147           | 130             | 105            | 153            | 145    | 172  | 108   | 162   | 120   | 135          | 164     | 154   | 155    | 136    | 137           | 108   | 218            | 175         | 126          | 128   | 145                               |

RETAIL PRICES OF FOOD.

TREND IN THE RETAIL COST OF ALL ARTICLES OF FOOD, COMBINED, FOR THE UNITED STATES, BY MONTHS, JANUARY, 1914, TO AUGUST, 1923.

[1913=100.]





## Retail Prices of Food in 51

**A**VERAGE retail food prices are shown in Table 5 for 40 cities for 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

[The prices shown in this table are computed from reports sent monthly to the Bureau by retail dealers.]

| Article.                       | Unit.              | Atlanta, Ga. |      |                |                |      | Baltimore, Md. |      |                |                |      | Birmingham, Ala. |      |                |                |      |
|--------------------------------|--------------------|--------------|------|----------------|----------------|------|----------------|------|----------------|----------------|------|------------------|------|----------------|----------------|------|
|                                |                    | Aug. 15—     |      | July 15, 1923. | Aug. 15, 1923. |      | Aug. 15—       |      | July 15, 1923. | Aug. 15, 1923. |      | Aug. 15—         |      | July 15, 1923. | Aug. 15, 1923. |      |
|                                |                    | 1913         | 1922 |                |                |      | 1913           | 1922 |                |                |      | 1913             | 1922 |                |                |      |
|                                |                    | Cts.         | Cts. | Cts.           | Cts.           | Cts. | Cts.           | Cts. | Cts.           | Cts.           | Cts. | Cts.             | Cts. | Cts.           | Cts.           | Cts. |
| Sirloin steak.....             | Pound.....         | 25.0         | 35.9 | 35.8           | 34.9           | 24.3 | 37.8           | 40.5 | 40.7           | 28.1           | 34.8 | 37.7             | 37.1 |                |                |      |
| Round steak.....               | do.....            | 21.5         | 31.9 | 31.6           | 31.6           | 26.3 | 36.8           | 34.4 | 37.3           | 22.5           | 31.0 | 32.7             | 32.5 |                |                |      |
| Rib roast.....                 | do.....            | 20.1         | 27.2 | 27.5           | 27.0           | 19.3 | 29.4           | 32.0 | 31.3           | 20.6           | 25.9 | 28.1             | 27.2 |                |                |      |
| Chuck roast.....               | do.....            | 15.5         | 19.5 | 20.7           | 20.3           | 16.0 | 19.3           | 20.9 | 20.8           | 16.8           | 19.5 | 22.7             | 22.3 |                |                |      |
| Plate beef.....                | do.....            | 9.4          | 14.3 | 12.5           | 12.2           | 12.6 | 11.6           | 13.5 | 13.4           | 10.5           | 12.4 | 13.8             | 13.2 |                |                |      |
| Pork chops.....                | do.....            | 23.5         | 33.4 | 27.9           | 29.1           | 19.3 | 37.1           | 31.4 | 32.8           | 20.0           | 31.0 | 29.5             | 30.3 |                |                |      |
| Bacon, sliced.....             | do.....            | 32.0         | 39.7 | 36.1           | 36.1           | 26.3 | 36.8           | 34.4 | 34.4           | 35.0           | 42.5 | 39.2             | 39.0 |                |                |      |
| Ham, sliced.....               | do.....            | 31.0         | 49.7 | 46.2           | 47.1           | 34.5 | 55.7           | 52.1 | 51.7           | 31.3           | 50.0 | 45.9             | 46.2 |                |                |      |
| Lamb, leg of.....              | do.....            | 19.4         | 37.1 | 35.0           | 34.0           | 18.3 | 35.7           | 38.1 | 37.7           | 23.3           | 37.8 | 40.5             | 38.9 |                |                |      |
| Hens.....                      | do.....            | 20.2         | 28.8 | 30.4           | 30.4           | 21.2 | 36.3           | 37.5 | 36.4           | 17.0           | 28.5 | 30.6             | 29.1 |                |                |      |
| Salmon, canned, red.....       | do.....            | 29.9         | 29.2 | 29.2           | 29.2           | 26.0 | 26.5           | 26.5 | 26.5           | 31.7           | 30.1 | 30.0             |      |                |                |      |
| Milk, fresh.....               | Quart.....         | 10.0         | 15.7 | 15.0           | 17.5           | 8.8  | 12.0           | 12.0 | 10.3           | 18.3           | 18.5 | 18.5             |      |                |                |      |
| Milk, evaporated.....          | 15-16-oz. can..... | 13.2         | 14.4 | 14.4           | 14.4           | 10.4 | 12.0           | 12.0 | 12.0           | 11.9           | 13.3 | 13.2             |      |                |                |      |
| Butter.....                    | Pound.....         | 37.1         | 45.0 | 51.2           | 54.2           | 36.7 | 48.6           | 54.2 | 56.2           | 39.0           | 43.6 | 52.0             | 52.8 |                |                |      |
| Oleomargarine.....             | do.....            | 30.5         | 32.4 | 32.4           | 32.4           | 25.4 | 26.1           | 27.9 | 27.9           | 32.5           | 33.9 | 33.8             |      |                |                |      |
| Nut margarine.....             | do.....            | 26.0         | 26.7 | 26.7           | 26.7           | 26.0 | 26.7           | 27.0 | 27.0           | 28.1           | 31.4 | 31.5             |      |                |                |      |
| Cheese.....                    | do.....            | 25.0         | 30.9 | 34.8           | 35.0           | 22.5 | 31.9           | 36.2 | 35.9           | 23.0           | 29.8 | 35.8             | 35.9 |                |                |      |
| Lard.....                      | do.....            | 16.1         | 18.1 | 17.8           | 17.5           | 15.0 | 17.2           | 16.6 | 16.6           | 16.5           | 17.4 | 17.3             | 17.3 |                |                |      |
| Vegetable lard substitute..... | do.....            | 22.5         | 21.3 | 22.6           | 22.6           | 21.8 | 22.3           | 22.2 | 22.2           | 19.5           | 19.6 | 19.5             |      |                |                |      |
| Eggs, strictly fresh.....      | Dozen.....         | 28.3         | 33.2 | 33.4           | 37.2           | 27.7 | 31.9           | 33.4 | 37.6           | 28.3           | 35.2 | 36.6             | 38.9 |                |                |      |
| Bread.....                     | Pound.....         | 6.0          | 9.8  | 9.2            | 9.2            | 5.4  | 8.6            | 8.7  | 8.8            | 5.4            | 9.2  | 8.9              | 8.9  |                |                |      |
| Flour.....                     | do.....            | 3.5          | 5.4  | 5.3            | 5.0            | 3.2  | 5.0            | 4.4  | 4.3            | 3.6            | 5.6  | 5.7              | 5.5  |                |                |      |
| Corn meal.....                 | do.....            | 2.6          | 3.0  | 3.6            | 3.8            | 2.5  | 3.1            | 3.3  | 3.4            | 2.4            | 2.8  | 3.4              | 3.4  |                |                |      |
| Rolled oats.....               | do.....            | 9.9          | 9.2  | 9.2            | 9.2            | 8.3  | 8.7            | 8.4  | 8.4            | 9.5            | 9.3  | 9.2              |      |                |                |      |
| Corn flakes.....               | 8-oz. pkg.....     | 9.9          | 9.8  | 9.7            | 9.7            | 8.9  | 8.8            | 8.8  | 8.8            | 10.0           | 9.9  | 9.9              |      |                |                |      |
| Wheat cereal.....              | 28-oz. pkg.....    | 26.1         | 26.2 | 26.6           | 26.6           | 24.8 | 22.8           | 22.8 | 22.8           | 27.1           | 26.3 | 26.1             |      |                |                |      |
| Macaroni.....                  | Pound.....         | 21.7         | 20.9 | 20.9           | 20.9           | 18.8 | 19.1           | 19.2 | 19.2           | 19.5           | 18.9 | 18.9             |      |                |                |      |
| Rice.....                      | do.....            | 8.6          | 9.3  | 8.6            | 8.6            | 9.0  | 9.2            | 9.0  | 9.2            | 8.2            | 9.3  | 9.2              | 9.1  |                |                |      |
| Beans, navy.....               | do.....            | 11.4         | 12.5 | 13.0           | 13.0           | 10.8 | 10.8           | 10.5 | 10.5           | 12.2           | 12.5 | 12.3             |      |                |                |      |
| Potatoes.....                  | do.....            | 2.3          | 4.0  | 5.4            | 5.2            | 1.7  | 2.3            | 4.6  | 4.2            | 2.3            | 4.0  | 5.1              | 4.7  |                |                |      |
| Onions.....                    | do.....            | 8.4          | 9.6  | 8.1            | 8.1            | 5.0  | 7.7            | 6.4  | 6.4            | 6.8            | 8.1  | 7.4              |      |                |                |      |
| Cabbage.....                   | do.....            | 4.7          | 4.9  | 5.9            | 5.9            | 2.7  | 5.4            | 4.9  | 4.9            | 4.8            | 7.0  | 6.4              |      |                |                |      |
| Beans, baked.....              | No. 2 can.....     | 13.5         | 13.5 | 13.6           | 13.6           | 12.1 | 11.9           | 11.6 | 11.6           | 15.3           | 14.0 | 14.0             |      |                |                |      |
| Corn, canned.....              | do.....            | 15.7         | 15.6 | 15.7           | 15.7           | 14.2 | 14.8           | 14.7 | 14.7           | 16.3           | 17.0 | 16.6             |      |                |                |      |
| Peas, canned.....              | do.....            | 17.4         | 17.8 | 17.4           | 17.4           | 15.6 | 16.8           | 16.8 | 16.8           | 20.4           | 20.6 | 20.6             |      |                |                |      |
| Tomatoes, canned.....          | do.....            | 13.4         | 13.2 | 13.2           | 13.2           | 11.6 | 12.2           | 12.2 | 12.2           | 12.9           | 11.8 | 11.8             |      |                |                |      |
| Sugar, granulated.....         | Pound.....         | 5.9          | 8.7  | 11.2           | 10.3           | 5.1  | 7.5            | 9.8  | 9.0            | 5.7            | 8.3  | 11.0             | 10.0 |                |                |      |
| Tea.....                       | do.....            | 60.0         | 59.5 | 62.5           | 91.9           | 56.0 | 64.6           | 66.1 | 67.6           | 61.3           | 81.8 | 84.1             | 85.2 |                |                |      |
| Coffee.....                    | do.....            | 32.0         | 35.9 | 36.8           | 36.7           | 24.8 | 31.8           | 33.2 | 32.6           | 28.8           | 37.1 | 39.1             | 39.1 |                |                |      |
| Prunes.....                    | do.....            | 22.4         | 19.6 | 19.8           | 19.8           | 18.7 | 17.7           | 18.1 | 18.1           | 24.5           | 21.3 | 20.8             |      |                |                |      |
| Raisins.....                   | do.....            | 24.3         | 20.5 | 20.0           | 20.0           | 21.6 | 14.7           | 15.1 | 15.1           | 24.6           | 19.2 | 19.2             |      |                |                |      |
| Bananas.....                   | Dozen.....         | 25.4         | 28.1 | 29.4           | 29.4           | 25.0 | 28.6           | 28.6 | 28.6           | 33.0           | 38.0 | 38.3             |      |                |                |      |
| Oranges.....                   | do.....            | 55.7         | 54.9 | 48.4           | 48.4           | 72.9 | 57.3           | 53.1 | 53.1           | 70.5           | 55.0 | 52.3             |      |                |                |      |

<sup>1</sup> The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.



## Cities on Specified Dates.

August 15, 1913 and 1922, and for July 15 and August 15, 1923. the exception of August, 1913, as these cities were not scheduled by

## ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES.

As some dealers occasionally fail to report, the number of quotations varies from month to month.]

| Boston, Mass. |       |                |                | Bridgeport, Conn. |                |                |          | Buffalo, N. Y. |                |                |                | Butte, Mont.   |                |          |       | Charleston, S. C. |                |      |  |
|---------------|-------|----------------|----------------|-------------------|----------------|----------------|----------|----------------|----------------|----------------|----------------|----------------|----------------|----------|-------|-------------------|----------------|------|--|
| Aug. 15—      |       | July 15, 1923. | Aug. 15, 1923. | Aug. 15, 1922.    | July 15, 1923. | Aug. 15, 1923. | Aug. 15— |                | July 15, 1923. | Aug. 15, 1923. | Aug. 15, 1922. | July 15, 1923. | Aug. 15, 1923. | Aug. 15— |       | July 15, 1923.    | Aug. 15, 1923. |      |  |
| 1913          | 1922  |                |                |                   |                |                | 1913     | 1922           |                |                |                |                |                | 1913     | 1922  |                   |                |      |  |
| Cts.          | Cts.  | Cts.           | Cts.           | Cts.              | Cts.           | Cts.           | Cts.     | Cts.           | Cts.           | Cts.           | Cts.           | Cts.           | Cts.           | Cts.     | Cts.  | Cts.              | Cts.           |      |  |
| 135.8         | 160.4 | 164.6          | 164.7          | 44.7              | 48.7           | 49.2           | 23.8     | 38.3           | 40.0           | 40.6           | 32.2           | 31.1           | 30.1           | 21.8     | 36.5  | 35.6              | 35.6           |      |  |
| 36.2          | 52.2  | 54.3           | 56.7           | 38.5              | 41.5           | 42.9           | 20.5     | 32.6           | 33.8           | 34.2           | 28.0           | 26.7           | 25.8           | 20.0     | 35.8  | 34.4              | 32.5           |      |  |
| 25.6          | 35.7  | 38.5           | 39.6           | 34.6              | 36.8           | 37.2           | 17.0     | 27.9           | 28.7           | 28.5           | 25.2           | 24.3           | 23.6           | 20.0     | 29.2  | 28.8              | 28.1           |      |  |
| 18.0          | 23.4  | 25.0           | 26.2           | 24.7              | 26.5           | 26.3           | 15.5     | 20.2           | 20.3           | 20.7           | 16.8           | 17.6           | 16.8           | 15.8     | 21.9  | 21.3              | 20.6           |      |  |
| .....         | 16.2  | 15.5           | 16.8           | 10.2              | 10.7           | 11.3           | 11.5     | 11.4           | 11.2           | 11.1           | 11.7           | 11.7           | 10.6           | 11.9     | 14.4  | 14.4              | 14.1           |      |  |
| 24.2          | 38.3  | 35.0           | 35.5           | 35.9              | 33.3           | 33.8           | 22.0     | 38.5           | 35.1           | 35.8           | 33.8           | 28.3           | 29.0           | 22.5     | 34.5  | 30.6              | 30.6           |      |  |
| 25.8          | 37.0  | 37.0           | 37.1           | 43.7              | 44.7           | 45.2           | 24.5     | 34.7           | 32.9           | 32.8           | 47.7           | 48.2           | 47.7           | 27.5     | 36.4  | 34.1              | 34.2           |      |  |
| 33.8          | 59.6  | 52.1           | 52.8           | 61.0              | 55.3           | 56.5           | 28.0     | 51.0           | 45.9           | 46.3           | 57.7           | 51.8           | 52.3           | 28.3     | 48.2  | 41.3              | 41.7           |      |  |
| 23.0          | 39.5  | 42.9           | 40.8           | 36.9              | 42.6           | 41.4           | 15.5     | 31.7           | 34.2           | 33.1           | 32.7           | 33.0           | 32.3           | 21.3     | 41.1  | 41.7              | 41.7           |      |  |
| 25.6          | 38.6  | 38.6           | 38.7           | 38.2              | 37.9           | 38.6           | 21.8     | 35.6           | 35.2           | 34.9           | 32.3           | 30.3           | 29.3           | 22.2     | 38.4  | 37.1              | 37.4           |      |  |
| .....         | 30.0  | 29.1           | 28.9           | 32.8              | 30.1           | 30.5           | .....    | 27.6           | 27.4           | 27.3           | 35.8           | 36.4           | 37.3           | .....    | 27.6  | 25.8              | 25.8           |      |  |
| 8.9           | 13.5  | 14.4           | 14.9           | 14.0              | 14.0           | 14.0           | 8.0      | 14.0           | 12.3           | 12.5           | 14.0           | 14.0           | 14.2           | 11.7     | 18.7  | 18.0              | 18.0           |      |  |
| .....         | 11.4  | 12.6           | 12.8           | 10.6              | 12.6           | 12.5           | .....    | 10.2           | 11.8           | 11.9           | 11.3           | 12.7           | 12.7           | .....    | 10.5  | 12.0              | 12.0           |      |  |
| 35.9          | 45.8  | 50.4           | 52.6           | 44.9              | 49.4           | 51.9           | 32.9     | 43.3           | 47.7           | 51.0           | 46.9           | 50.7           | 52.3           | 34.2     | 44.1  | 47.9              | 50.0           |      |  |
| .....         | 29.0  | 31.3           | 31.2           | 25.8              | 28.0           | 28.3           | .....    | 26.8           | 28.3           | 28.3           | 30.0           | .....          | .....          | .....    | 27.4  | 28.0              | 28.3           |      |  |
| .....         | 26.3  | 25.9           | 26.1           | 24.5              | 26.3           | 26.3           | .....    | 26.2           | 27.1           | 26.9           | 29.8           | 32.7           | 32.7           | .....    | 28.0  | 28.5              | 28.5           |      |  |
| 22.4          | 33.8  | 38.4           | 38.0           | 32.3              | 37.7           | 37.9           | 20.0     | 30.4           | 35.7           | 36.2           | 34.6           | 37.5           | 37.1           | 20.5     | 28.8  | 33.9              | 34.2           |      |  |
| 15.7          | 17.9  | 17.5           | 17.5           | 16.6              | 16.7           | 16.6           | 14.5     | 16.0           | 16.2           | 16.1           | 20.9           | 20.7           | 20.5           | 15.3     | 18.5  | 18.5              | 18.5           |      |  |
| .....         | 23.5  | 23.9           | 24.1           | 22.2              | 23.0           | 23.4           | .....    | 20.4           | 22.2           | 22.2           | 27.0           | 26.3           | 25.9           | .....    | 22.3  | 22.5              | 22.4           |      |  |
| 42.4          | 57.6  | 55.9           | 64.2           | 53.1              | 52.3           | 58.2           | 29.8     | 37.4           | 39.1           | 42.3           | 45.5           | 43.6           | 50.5           | 30.0     | 32.6  | 34.7              | 36.2           |      |  |
| .....         | 5.9   | 8.5            | 8.4            | 8.4               | 8.4            | 8.5            | 5.6      | 8.6            | 8.4            | 8.3            | 9.7            | 9.7            | 9.7            | 6.0      | 9.6   | 10.2              | 10.3           |      |  |
| 3.8           | 5.8   | 5.2            | 4.9            | 5.2               | 4.9            | 4.7            | 3.0      | 4.7            | 4.1            | 3.9            | 5.8            | 5.3            | 5.1            | 3.7      | 6.1   | 5.9               | 5.9            |      |  |
| 3.5           | 5.0   | 5.3            | 5.1            | 6.9               | 6.6            | 6.8            | 2.6      | 3.4            | 3.9            | 3.8            | 4.0            | 3.8            | 3.9            | 2.4      | 3.0   | 3.1               | 3.1            |      |  |
| .....         | 8.1   | 8.7            | 8.9            | 8.3               | 8.4            | 8.4            | .....    | 7.9            | 7.7            | 7.6            | 6.5            | 6.8            | 6.8            | .....    | 9.6   | 9.4               | 9.4            |      |  |
| .....         | 10.2  | 9.6            | 9.5            | 9.4               | 9.6            | 9.6            | .....    | 9.3            | 9.2            | 9.2            | 11.9           | 12.3           | 12.3           | .....    | 10.1  | 10.0              | 10.0           |      |  |
| .....         | 26.0  | 24.8           | 24.6           | 25.7              | 23.5           | 23.4           | .....    | 25.3           | 24.0           | 24.0           | 28.8           | 28.8           | 28.8           | .....    | 25.0  | 25.0              | 25.0           |      |  |
| .....         | 24.1  | 23.5           | 23.4           | 24.4              | 24.0           | 24.2           | .....    | 22.1           | 21.5           | 21.7           | 22.3           | 21.7           | 21.7           | .....    | 19.8  | 20.6              | 20.6           |      |  |
| 9.2           | 10.8  | 10.4           | 11.0           | 10.1              | 10.2           | 10.2           | 9.3      | 9.4            | 8.9            | 8.9            | 9.9            | 10.0           | 10.0           | 5.5      | 6.9   | 6.4               | 6.4            |      |  |
| .....         | 11.3  | 10.6           | 10.5           | 11.4              | 11.7           | 11.6           | .....    | 11.2           | 11.2           | 11.3           | 9.5            | 10.8           | 10.8           | .....    | 10.9  | 11.8              | 12.0           |      |  |
| 1.9           | 2.4   | 5.0            | 4.5            | 2.0               | 5.0            | 4.0            | 2.0      | 2.1            | 4.5            | 4.2            | 1.9            | 3.3            | 3.3            | 2.3      | 3.0   | 3.0               | 4.1            |      |  |
| .....         | 7.2   | 7.6            | 6.9            | 6.6               | 8.5            | 6.9            | .....    | 5.9            | 7.5            | 6.6            | 4.9            | 5.8            | 5.4            | .....    | 6.2   | 7.5               | 6.4            |      |  |
| .....         | 5.4   | 6.0            | 5.2            | 3.8               | 5.9            | 5.4            | .....    | 2.8            | 4.7            | 5.8            | 5.0            | 7.1            | 5.4            | .....    | 4.2   | 6.5               | 6.1            |      |  |
| .....         | 14.7  | 14.7           | 14.7           | 12.4              | 11.9           | 11.9           | .....    | 11.3           | 11.5           | 11.4           | 19.5           | 17.5           | 17.5           | .....    | 11.5  | 11.2              | 11.0           |      |  |
| .....         | 18.5  | 19.2           | 19.5           | 18.3              | 18.6           | 18.9           | .....    | 15.0           | 14.7           | 14.7           | 16.3           | 15.3           | 15.2           | .....    | 14.7  | 14.5              | 14.4           |      |  |
| .....         | 21.4  | 21.3           | 21.6           | 19.8              | 21.5           | 21.5           | .....    | 16.5           | 16.2           | 16.4           | 16.2           | 16.3           | 16.3           | .....    | 19.3  | 18.0              | 18.4           |      |  |
| .....         | 13.7  | 13.2           | 13.2           | 13.6              | 13.5           | 13.5           | .....    | 13.3           | 13.8           | 13.7           | 16.3           | 15.1           | 14.9           | .....    | 10.9  | 11.0              | 10.8           |      |  |
| 5.6           | 8.0   | 10.4           | 9.4            | 7.8               | 10.4           | 9.6            | 5.5      | 8.0            | 10.2           | 9.3            | 9.7            | 13.0           | 12.0           | 5.1      | 7.7   | 10.2              | 9.2            |      |  |
| 58.6          | 68.7  | 69.9           | 69.7           | 57.4              | 58.3           | 58.3           | 45.0     | 60.7           | 62.2           | 62.5           | 78.6           | 82.5           | 83.9           | 50.0     | 73.9  | 71.5              | 71.4           |      |  |
| 33.0          | 42.9  | 43.2           | 43.1           | 34.8              | 36.1           | 36.1           | 29.3     | 33.8           | 35.3           | 35.2           | 45.2           | 45.4           | 45.4           | 26.3     | 32.9  | 33.8              | 34.2           |      |  |
| .....         | 21.0  | 19.3           | 18.9           | 20.5              | 18.3           | 18.9           | .....    | 19.7           | 18.7           | 18.9           | 21.9           | 20.6           | 20.6           | .....    | 20.9  | 19.0              | 18.6           |      |  |
| .....         | 21.0  | 15.9           | 15.9           | 22.7              | 17.0           | 16.8           | .....    | 20.0           | 15.3           | 15.3           | 25.8           | 21.3           | 21.1           | .....    | 24.1  | 16.9              | 16.9           |      |  |
| .....         | 43.9  | 48.8           | 49.6           | 33.9              | 38.2           | 37.7           | .....    | 38.1           | 47.2           | 46.0           | 214.8          | 15.2           | 15.2           | 215.2    | ..... | 32.1              | 38.1           | 40.0 |  |
| .....         | 69.0  | 58.0           | 53.4           | 68.3              | 55.7           | 52.7           | .....    | 65.0           | 50.8           | 52.1           | 62.1           | 48.3           | 48.3           | .....    | 67.5  | 53.1              | 50.8           |      |  |

\* Per pound.



TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTI

| Article.                       | Unit.              | Chicago, Ill. |           |                |                | Cincinnati, Ohio. |           |                |                | Cleveland, Ohio. |           |                |                |
|--------------------------------|--------------------|---------------|-----------|----------------|----------------|-------------------|-----------|----------------|----------------|------------------|-----------|----------------|----------------|
|                                |                    | Aug. 15—      |           | July 15, 1923. | Aug. 15, 1923. | Aug. 15—          |           | July 15, 1923. | Aug. 15, 1923. | Aug. 15—         |           | July 15, 1923. | Aug. 15, 1923. |
|                                |                    | 1913          | 1922      |                |                | 1913              | 1922      |                |                | 1913             | 1922      |                |                |
|                                |                    |               |           |                |                |                   |           |                |                |                  |           |                |                |
| Sirloin steak.....             | Pound.....         | Cts. 24.1     | Cts. 38.6 | Cts. 40.5      | Cts. 41.6      | Cts. 24.1         | Cts. 34.5 | Cts. 36.8      | Cts. 37.1      | Cts. 25.4        | Cts. 37.6 | Cts. 38.6      | Cts. 38.2      |
| Round steak.....               | do.....            | 21.2          | 30.8      | 31.6           | 32.2           | 22.1              | 31.4      | 33.3           | 33.4           | 22.9             | 31.5      | 31.2           | 31.2           |
| Rib roast.....                 | do.....            | 20.2          | 28.8      | 30.2           | 29.9           | 19.3              | 27.3      | 28.8           | 29.0           | 18.7             | 25.6      | 26.4           | 26.0           |
| Chuck roast.....               | do.....            | 15.7          | 19.3      | 19.5           | 19.5           | 15.2              | 17.8      | 19.0           | 19.0           | 16.9             | 18.9      | 19.6           | 20.0           |
| Plate beef.....                | do.....            | 11.4          | 11.5      | 11.8           | 11.6           | 11.0              | 13.0      | 14.0           | 14.0           | 12.0             | 11.0      | 10.5           | 11.0           |
| Pork chops.....                | do.....            | 20.9          | 33.8      | 28.0           | 30.9           | 21.7              | 35.0      | 31.5           | 32.4           | 22.1             | 35.7      | 31.6           | 33.4           |
| Bacon, sliced.....             | do.....            | 32.0          | 47.4      | 44.5           | 44.7           | 26.3              | 34.9      | 33.8           | 33.8           | 30.3             | 39.0      | 39.8           | 40.7           |
| Ham, sliced.....               | do.....            | 32.2          | 51.1      | 48.2           | 48.6           | 30.2              | 51.2      | 47.5           | 48.2           | 37.3             | 52.0      | 47.9           | 48.8           |
| Lamb, leg of.....              | do.....            | 19.9          | 34.9      | 38.0           | 37.0           | 16.5              | 32.3      | 34.9           | 32.3           | 19.6             | 33.5      | 36.6           | 34.9           |
| Hens.....                      | do.....            | 19.7          | 32.8      | 33.3           | 32.9           | 23.4              | 35.5      | 34.9           | 34.9           | 21.5             | 35.2      | 35.6           | 36.1           |
| Salmon, canned, red.....       | do.....            | 32.9          | 33.1      | 33.3           | 33.3           | 27.7              | 28.0      | 28.2           | 28.2           | 30.1             | 29.3      | 29.1           | 29.1           |
| Milk, fresh.....               | Quart.....         | 8.0           | 12.0      | 14.0           | 14.0           | 8.0               | 12.0      | 12.0           | 12.0           | 8.0              | 11.7      | 14.0           | 14.0           |
| Milk, evaporated.....          | 15-16-oz. can..... | 9.8           | 11.5      | 11.4           | 11.4           | 10.1              | 11.4      | 11.5           | 11.5           | 10.1             | 11.9      | 11.9           | 11.9           |
| Butter.....                    | Pound.....         | 32.7          | 40.5      | 45.7           | 49.2           | 25.5              | 41.5      | 45.4           | 50.0           | 35.7             | 44.1      | 49.0           | 53.5           |
| Oleomargarine.....             | do.....            | 23.6          | 25.5      | 25.7           | 25.7           | 28.6              | 29.7      | 29.8           | 29.8           | 27.7             | 29.1      | 29.1           | 29.1           |
| Nut margarine.....             | do.....            | 22.7          | 24.2      | 24.4           | 24.4           | 27.0              | 28.2      | 27.6           | 27.6           | 25.9             | 27.2      | 28.1           | 28.1           |
| Cheese.....                    | do.....            | 25.0          | 34.5      | 39.9           | 40.0           | 21.0              | 32.0      | 37.0           | 36.5           | 23.0             | 31.1      | 35.2           | 35.0           |
| Lard.....                      | do.....            | 15.1          | 16.6      | 16.8           | 16.8           | 14.3              | 14.9      | 15.2           | 15.3           | 16.6             | 17.8      | 18.0           | 17.8           |
| Vegetable lard substitute..... | do.....            | 22.3          | 22.9      | 23.2           | 23.2           | 21.8              | 22.9      | 23.4           | 23.4           | 22.2             | 24.0      | 24.3           | 24.3           |
| Eggs, strictly fresh.....      | Dozen.....         | 27.3          | 34.0      | 36.6           | 39.2           | 24.9              | 31.2      | 31.3           | 33.7           | 33.3             | 36.4      | 38.1           | 41.4           |
| Bread.....                     | Pound.....         | 6.1           | 9.7       | 9.7            | 9.7            | 4.8               | 8.4       | 8.4            | 8.4            | 5.6              | 7.9       | 7.9            | 7.0            |
| Flour.....                     | do.....            | 2.9           | 4.7       | 4.0            | 4.0            | 3.3               | 5.1       | 4.5            | 4.4            | 3.2              | 4.9       | 4.7            | 4.6            |
| Corn meal.....                 | do.....            | 2.8           | 5.4       | 5.2            | 5.3            | 2.7               | 2.9       | 3.2            | 3.4            | 2.8              | 3.3       | 3.7            | 3.8            |
| Rollod oats.....               | do.....            | 8.0           | 8.5       | 8.5            | 8.5            | 8.5               | 8.5       | 8.6            | 8.7            | 8.5              | 8.5       | 8.6            | 8.6            |
| Corn flakes.....               | 8-oz. pkg.....     | 9.3           | 9.2       | 9.2            | 9.2            | 9.4               | 9.3       | 9.3            | 9.3            | 9.8              | 9.8       | 9.8            | 9.8            |
| Wheat cereal.....              | 28-oz. pkg.....    | 24.8          | 23.5      | 23.4           | 23.4           | 24.3              | 23.0      | 22.8           | 22.8           | 25.7             | 24.3      | 24.4           | 24.4           |
| Macaroni.....                  | Pound.....         | 18.4          | 18.3      | 18.3           | 18.3           | 16.9              | 16.4      | 16.6           | 16.6           | 20.0             | 19.7      | 19.2           | 19.2           |
| Rice.....                      | do.....            | 9.0           | 9.8       | 10.0           | 10.0           | 8.8               | 9.5       | 8.9            | 9.0            | 8.5              | 8.9       | 9.0            | 9.2            |
| Beans, navy.....               | do.....            | 11.7          | 11.3      | 10.7           | 10.7           | 11.5              | 10.4      | 10.3           | 10.3           | 12.2             | 11.0      | 10.7           | 10.7           |
| Potatoes.....                  | do.....            | 2.0           | 2.6       | 4.6            | 3.7            | 2.2               | 3.0       | 4.2            | 2.9            | 2.1              | 2.3       | 4.7            | 4.2            |
| Onions.....                    | do.....            | 5.0           | 8.0       | 6.0            | 6.0            | 5.3               | 6.5       | 6.0            | 6.0            | 5.6              | 7.5       | 5.9            | 5.9            |
| Cabbage.....                   | do.....            | 3.5           | 5.8       | 4.5            | 4.5            | 4.3               | 4.4       | 4.2            | 4.2            | 3.1              | 6.0       | 5.2            | 5.2            |
| Beans, baked.....              | No. 2 can.....     | 13.0          | 12.9      | 12.9           | 12.9           | 11.7              | 11.7      | 11.7           | 11.7           | 12.6             | 12.8      | 12.9           | 12.9           |
| Corn, canned.....              | do.....            | 14.2          | 14.9      | 15.2           | 15.2           | 14.0              | 13.8      | 13.7           | 13.7           | 15.9             | 15.1      | 15.5           | 15.5           |
| Peas, canned.....              | do.....            | 15.7          | 16.3      | 16.7           | 16.7           | 16.2              | 16.9      | 16.9           | 16.9           | 17.6             | 16.6      | 16.7           | 16.7           |
| Tomatoes, canned.....          | do.....            | 14.1          | 14.0      | 14.0           | 14.0           | 13.6              | 12.7      | 12.6           | 12.6           | 14.1             | 13.8      | 13.8           | 13.8           |
| Sugar, granulated.....         | Pound.....         | 5.1           | 7.7       | 10.0           | 9.1            | 5.4               | 7.9       | 10.3           | 9.5            | 5.6              | 8.2       | 10.4           | 9.2            |
| Tea.....                       | do.....            | 55.0          | 64.9      | 72.8           | 72.6           | 60.0              | 68.2      | 72.0           | 72.3           | 50.0             | 67.3      | 68.7           | 68.7           |
| Coffee.....                    | do.....            | 30.7          | 34.4      | 38.3           | 38.1           | 25.6              | 31.2      | 33.7           | 33.1           | 26.5             | 37.4      | 40.6           | 40.0           |
| Prunes.....                    | do.....            | 21.2          | 19.8      | 19.4           | 19.4           | 19.4              | 19.2      | 19.0           | 19.0           | 20.8             | 18.4      | 18.0           | 18.0           |
| Raisins.....                   | do.....            | 23.9          | 17.6      | 17.3           | 17.3           | 22.4              | 17.7      | 17.8           | 17.8           | 21.7             | 16.9      | 17.2           | 17.2           |
| Bananas.....                   | Dozen.....         | 35.1          | 40.2      | 40.0           | 40.0           | 33.9              | 41.3      | 41.5           | 41.5           | 42.9             | 50.3      | 52.3           | 52.3           |
| Oranges.....                   | do.....            | 66.3          | 53.3      | 52.3           | 52.3           | 53.7              | 52.1      | 50.1           | 50.1           | 59.6             | 53.3      | 50.7           | 50.7           |

<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.



TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTI

| Article.                       | Unit.              | Houston, Tex.        |                      |                      | Indianapolis, Ind. |              |                      |                      | Jacksonville, Fla. |              |                      |                      |
|--------------------------------|--------------------|----------------------|----------------------|----------------------|--------------------|--------------|----------------------|----------------------|--------------------|--------------|----------------------|----------------------|
|                                |                    | Aug.<br>15,<br>1922. | July<br>15,<br>1923. | Aug.<br>15,<br>1923. | Aug. 15—           |              | July<br>15,<br>1923. | Aug.<br>15,<br>1923. | Aug. 15—           |              | July<br>15,<br>1923. | Aug.<br>15,<br>1923. |
|                                |                    |                      |                      |                      | 1913               | 1922         |                      |                      | 1913               | 1922         |                      |                      |
|                                |                    |                      |                      |                      |                    |              |                      |                      |                    |              |                      |                      |
| Sirloin steak.....             | Pound.....         | Cts.<br>30.8         | Cts.<br>30.2         | Cts.<br>29.7         | Cts.<br>25.5       | Cts.<br>36.5 | Cts.<br>38.7         | Cts.<br>39.1         | Cts.<br>26.0       | Cts.<br>35.4 | Cts.<br>34.4         | Cts.<br>33.7         |
| Round steak.....               | do.....            | 29.6                 | 29.5                 | 28.8                 | 24.7               | 34.9         | 37.4                 | 38.3                 | 22.0               | 29.6         | 28.1                 | 27.5                 |
| Rib roast.....                 | do.....            | 24.6                 | 24.6                 | 24.6                 | 18.2               | 26.2         | 25.9                 | 26.4                 | 23.3               | 26.1         | 25.0                 | 26.0                 |
| Chuck roast.....               | do.....            | 21.0                 | 20.0                 | 19.9                 | 16.4               | 21.9         | 22.8                 | 23.0                 | 14.0               | 17.4         | 17.6                 | 17.9                 |
| Plate beef.....                | do.....            | 15.4                 | 15.3                 | 15.5                 | 12.1               | 13.2         | 13.8                 | 13.4                 | 10.3               | 10.3         | 10.4                 | 10.4                 |
| Pork chops.....                | do.....            | 29.2                 | 28.5                 | 29.4                 | 22.7               | 32.9         | 28.6                 | 29.5                 | 22.3               | 33.1         | 28.1                 | 29.1                 |
| Bacon, sliced.....             | do.....            | 49.3                 | 45.4                 | 45.8                 | 31.0               | 38.4         | 37.6                 | 37.8                 | 30.3               | 38.2         | 34.5                 | 34.5                 |
| Ham, sliced.....               | do.....            | 51.4                 | 44.7                 | 45.6                 | 31.2               | 52.4         | 50.0                 | 49.7                 | 28.7               | 48.1         | 43.8                 | 41.9                 |
| Lamb, leg of.....              | do.....            | 36.3                 | 35.8                 | 35.0                 | 20.7               | 39.3         | 43.3                 | 40.0                 | 19.3               | 35.5         | 37.5                 | 33.8                 |
| Hens.....                      | do.....            | 31.0                 | 30.1                 | 30.7                 | 21.0               | 32.3         | 32.9                 | 33.5                 | 22.8               | 32.8         | 30.8                 | 30.4                 |
| Salmon, canned, red.....       | do.....            | 31.5                 | 30.6                 | 30.8                 | .....              | 37.5         | 36.1                 | 36.1                 | .....              | 31.1         | 30.5                 | 30.5                 |
| Milk, fresh.....               | Quart.....         | 15.3                 | 15.3                 | 14.8                 | 8.0                | 10.0         | 12.0                 | 12.0                 | 12.4               | 16.7         | 16.7                 | 16.3                 |
| Milk, evaporated.....          | 15-16-oz. can..... | 11.4                 | 12.9                 | 12.9                 | .....              | 9.9          | 11.6                 | 11.6                 | .....              | 11.3         | 12.7                 | 12.7                 |
| Butter.....                    | Pound.....         | 42.2                 | 47.0                 | 50.8                 | 34.5               | 41.1         | 46.7                 | 49.9                 | 38.6               | 44.7         | 49.8                 | 51.1                 |
| Oleomargarine.....             | do.....            | 31.3                 | 31.7                 | 32.5                 | .....              | 26.9         | 29.0                 | 29.3                 | .....              | 28.5         | 27.8                 | 28.8                 |
| Nut margarine.....             | do.....            | 28.1                 | 28.8                 | 29.2                 | .....              | 26.4         | 27.1                 | 27.4                 | .....              | 26.8         | 26.8                 | 27.2                 |
| Cheese.....                    | do.....            | 29.6                 | 33.5                 | 34.2                 | 21.0               | 31.2         | 35.1                 | 35.5                 | 22.5               | 30.0         | 33.4                 | 33.3                 |
| Lard.....                      | do.....            | 17.9                 | 18.6                 | 18.6                 | 15.2               | 14.9         | 14.3                 | 14.5                 | 15.5               | 17.2         | 17.0                 | 17.3                 |
| Vegetable lard substitute..... | do.....            | 24.4                 | 17.8                 | 17.3                 | .....              | 22.7         | 25.1                 | 25.3                 | .....              | 22.8         | 22.9                 | 23.3                 |
| Eggs, strictly fresh.....      | Dozen.....         | 31.2                 | 30.3                 | 33.5                 | 24.0               | 28.2         | 29.3                 | 31.9                 | 30.6               | 38.9         | 37.8                 | 43.3                 |
| Bread.....                     | Pound.....         | 6.9                  | 7.1                  | 7.1                  | 5.1                | 7.3          | 8.5                  | 8.5                  | 6.4                | 10.6         | 10.3                 | 10.3                 |
| Flour.....                     | do.....            | 5.1                  | 4.7                  | 4.6                  | 3.1                | 4.6          | 4.5                  | 4.4                  | 3.8                | 5.9          | 5.4                  | 5.3                  |
| Corn meal.....                 | do.....            | 3.6                  | 3.8                  | 3.8                  | 2.6                | 3.0          | 3.3                  | 3.3                  | 3.0                | 3.0          | 3.5                  | 3.5                  |
| Rolled oats.....               | do.....            | 8.4                  | 8.8                  | 8.8                  | .....              | 7.4          | 7.6                  | 7.7                  | .....              | 9.7          | 9.5                  | 9.2                  |
| Corn flakes.....               | 8-oz. pkg.....     | 9.6                  | 9.7                  | 9.7                  | .....              | 9.0          | 9.0                  | 8.9                  | .....              | 9.7          | 9.7                  | 9.7                  |
| Wheat cereal.....              | 28-oz. pkg.....    | 24.7                 | 23.9                 | 24.0                 | .....              | 25.8         | 24.4                 | 23.9                 | .....              | 26.5         | 24.5                 | 24.4                 |
| Macaroni.....                  | Pound.....         | 20.1                 | 20.2                 | 20.0                 | .....              | 19.1         | 18.4                 | 18.4                 | .....              | 19.1         | 19.5                 | 19.2                 |
| Rice.....                      | do.....            | 8.1                  | 7.8                  | 7.8                  | 9.2                | 10.0         | 10.2                 | 10.4                 | 6.6                | 8.7          | 8.7                  | 8.7                  |
| Beans, navy.....               | do.....            | 10.2                 | 10.8                 | 10.7                 | .....              | 12.8         | 10.9                 | 9.6                  | .....              | 11.9         | 11.6                 | 11.5                 |
| Potatoes.....                  | do.....            | 4.0                  | 4.7                  | 4.7                  | 2.2                | 2.7          | 4.3                  | 3.8                  | 2.6                | 3.5          | 5.5                  | 5.3                  |
| Onions.....                    | do.....            | 6.1                  | 6.8                  | 6.0                  | .....              | 6.4          | 8.4                  | 7.2                  | .....              | 7.0          | 8.2                  | 7.3                  |
| Cabbage.....                   | do.....            | 5.2                  | 6.3                  | 5.4                  | .....              | 4.4          | 4.9                  | 4.9                  | .....              | 4.3          | 5.9                  | 6.3                  |
| Beans, baked.....              | No. 2 can.....     | 14.2                 | 13.7                 | 13.2                 | .....              | 13.1         | 13.4                 | 13.4                 | .....              | 12.4         | 12.0                 | 11.5                 |
| Corn, canned.....              | do.....            | 13.8                 | 13.8                 | 13.8                 | .....              | 14.0         | 13.3                 | 13.5                 | .....              | 15.8         | 16.3                 | 16.3                 |
| Peas, canned.....              | do.....            | 18.7                 | 18.8                 | 18.7                 | .....              | 15.6         | 15.9                 | 16.0                 | .....              | 18.2         | 16.8                 | 16.8                 |
| Tomatoes, canned.....          | do.....            | 13.1                 | 12.2                 | 12.1                 | .....              | 14.8         | 14.0                 | 14.1                 | .....              | 11.3         | 11.5                 | 11.5                 |
| Sugar, granulated.....         | Pound.....         | 8.1                  | 10.3                 | 9.0                  | 5.9                | 8.8          | 11.0                 | 10.0                 | 5.9                | 8.2          | 10.6                 | 9.7                  |
| Tea.....                       | do.....            | 73.1                 | 71.0                 | 71.0                 | 60.0               | 74.2         | 77.0                 | 77.1                 | 60.0               | 85.9         | 87.5                 | 86.0                 |
| Coffee.....                    | do.....            | 31.4                 | 33.0                 | 32.5                 | 30.0               | 37.3         | 38.2                 | 38.2                 | 34.5               | 37.2         | 39.1                 | 38.7                 |
| Prunes.....                    | do.....            | 22.7                 | 18.8                 | 18.1                 | .....              | 21.8         | 19.4                 | 19.4                 | .....              | 22.2         | 19.5                 | 19.5                 |
| Raisins.....                   | do.....            | 24.9                 | 18.2                 | 17.4                 | .....              | 24.1         | 18.1                 | 18.5                 | .....              | 24.8         | 18.6                 | 18.9                 |
| Bananas.....                   | Dozen.....         | 28.3                 | 30.8                 | 30.5                 | .....              | 28.0         | 33.0                 | 32.3                 | .....              | 22.7         | 35.8                 | 32.5                 |
| Oranges.....                   | do.....            | 58.3                 | 46.8                 | 45.6                 | .....              | 64.6         | 50.2                 | 48.8                 | .....              | 65.0         | 50.6                 | 52.5                 |

<sup>1</sup> No. 2½ can.

## RETAIL PRICES OF FOOD.

39

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, 1923. |      | Aug. 15, 1923.    |      | Aug. 15— |      | July 15, 1923.      |      | Aug. 15, 1923. |       | Aug. 15—        |      | July 15, 1923. |       | Aug. 15—          |       | July 15, 1923. |       |
| 1913             | 1922 |                |      | 1913              | 1922 | 1913     | 1922 | 1913                | 1922 | 1923.          | 1923. | 1913            | 1922 | 1923.          | 1923. | 1913              | 1922  | 1923.          | 1923. |
| Cts.             | Cts. | Cts.           | Cts. | Cts.              | Cts. | Cts.     | Cts. | Cts.                | Cts. | Cts.           | Cts.  | Cts.            | Cts. | Cts.           | Cts.  | Cts.              | Cts.  | Cts.           | Cts.  |
| 24.4             | 37.0 | 38.7           | 38.5 | 26.3              | 33.7 | 35.5     | 34.1 | 24.0                | 34.4 | 33.8           | 33.9  | 23.2            | 31.0 | 33.5           | 32.8  | 37.4              | 53.8  | 59.4           | 59.8  |
| 22.3             | 32.0 | 34.0           | 33.5 | 20.6              | 32.5 | 32.9     | 31.1 | 21.0                | 28.5 | 27.4           | 27.6  | 20.0            | 28.9 | 30.4           | 29.7  | 30.6              | 45.4  | 50.9           | 49.6  |
| 18.0             | 24.8 | 25.8           | 25.8 | 20.0              | 26.8 | 27.1     | 26.2 | 19.6                | 28.3 | 28.6           | 28.3  | 18.3            | 23.0 | 24.5           | 23.4  | 20.8              | 26.5  | 30.6           | 30.1  |
| 15.3             | 18.2 | 18.7           | 18.6 | 16.3              | 20.1 | 20.5     | 19.4 | 15.8                | 17.4 | 17.6           | 17.3  | 15.6            | 17.6 | 17.9           | 17.5  | 17.2              | 21.9  | 22.8           | 23.4  |
| 12.3             | 10.6 | 11.1           | 10.8 | 13.5              | 15.0 | 15.3     | 14.4 | 12.3                | 12.0 | 12.5           | 12.3  | 13.1            | 12.7 | 13.3           | 13.2  | .....             | 15.6  | 15.8           | 16.5  |
| 20.9             | 32.8 | 27.6           | 29.5 | 22.5              | 32.8 | 30.4     | 30.1 | 25.4                | 41.4 | 35.8           | 36.3  | 20.6            | 31.0 | 24.8           | 26.7  | 21.4              | 34.8  | 31.6           | 32.3  |
| 31.3             | 44.7 | 42.0           | 41.9 | 38.0              | 42.1 | 40.0     | 41.6 | 33.8                | 51.2 | 49.1           | 48.5  | 29.7            | 37.6 | 33.2           | 33.4  | 23.6              | 33.6  | 33.9           | 33.7  |
| 30.6             | 52.2 | 46.4           | 46.7 | 30.6              | 53.1 | 47.9     | 46.9 | 36.7                | 62.8 | 57.8           | 57.5  | 30.0            | 46.4 | 41.1           | 41.3  | 30.0              | 48.5  | 41.4           | 40.8  |
| 18.7             | 32.5 | 33.6           | 33.3 | 20.3              | 36.4 | 36.1     | 36.3 | 18.8                | 33.0 | 33.4           | 33.1  | 17.1            | 32.5 | 36.0           | 35.0  | 21.0              | 37.7  | 37.4           | 38.0  |
| 16.9             | 29.4 | 30.7           | 29.3 | 18.3              | 27.8 | 28.1     | 27.4 | 26.8                | 37.9 | 39.3           | 38.5  | 22.9            | 31.0 | 29.9           | 29.9  | 24.4              | 43.3  | 42.5           | 42.3  |
| .....            | 31.7 | 33.0           | 32.9 | .....             | 31.5 | 31.3     | 31.5 | .....               | 40.7 | 38.4           | 38.5  | .....           | 29.6 | 28.9           | 29.2  | .....             | 31.4  | 29.6           | 29.8  |
| 9.1              | 12.0 | 13.3           | 13.3 | 10.0              | 13.0 | 15.3     | 15.3 | 10.0                | 14.0 | 15.0           | 15.0  | 8.8             | 10.3 | 12.0           | 13.0  | 8.0               | 12.0  | 13.8           | 13.8  |
| .....            | 11.0 | 12.1           | 12.1 | .....             | 11.7 | 13.3     | 13.3 | .....               | 9.9  | 10.7           | 10.6  | .....           | 10.5 | 12.2           | 12.2  | .....             | 12.6  | 13.8           | 13.9  |
| 35.4             | 41.9 | 47.2           | 50.3 | 39.0              | 45.8 | 49.4     | 50.6 | 39.5                | 51.1 | 54.4           | 56.9  | 36.4            | 43.9 | 47.4           | 50.0  | 37.6              | 48.1  | 52.0           | 54.8  |
| .....            | 26.9 | 27.2           | 27.4 | .....             | 31.3 | 31.0     | 31.0 | .....               | 30.2 | 32.1           | 32.8  | .....           | 26.9 | 28.0           | 29.0  | .....             | 27.6  | 29.2           | 29.2  |
| .....            | 27.6 | 27.8           | 27.6 | .....             | 28.4 | 27.3     | 28.2 | .....               | 27.5 | 28.2           | 28.4  | .....           | 25.0 | 26.6           | 26.6  | .....             | 22.7  | 21.7           | 22.3  |
| 21.8             | 32.4 | 36.1           | 37.0 | 23.3              | 31.5 | 36.5     | 36.4 | 19.5                | 35.7 | 36.6           | 36.4  | 21.7            | 28.9 | 33.9           | 34.0  | 21.0              | 33.3  | 37.1           | 37.3  |
| 16.4             | 17.5 | 17.4           | 17.4 | 16.3              | 19.9 | 19.0     | 18.8 | 17.9                | 19.0 | 19.0           | 19.0  | 16.1            | 15.3 | 14.3           | 14.3  | 16.2              | 17.4  | 17.2           | 17.2  |
| .....            | 24.6 | 23.9           | 23.9 | .....             | 23.0 | 21.2     | 21.0 | .....               | 24.5 | 22.2           | 22.5  | .....           | 22.3 | 23.5           | 23.5  | .....             | 22.7  | 20.0           | 19.8  |
| 25.3             | 29.7 | 31.4           | 33.5 | 28.3              | 33.1 | 34.7     | 37.2 | 39.0                | 37.9 | 38.9           | 45.0  | 25.0            | 28.1 | 29.0           | 34.1  | 35.6              | 49.0  | 46.7           | 53.8  |
| 6.0              | 7.9  | 8.0            | 7.9  | 6.0               | 8.4  | 8.1      | 8.1  | 6.0                 | 9.0  | 9.0            | 9.0   | 5.7             | 8.8  | 8.5            | 8.4   | 6.1               | 7.9   | 8.4            | 8.3   |
| 3.0              | 4.6  | 4.3            | 4.2  | 3.5               | 5.2  | 5.3      | 4.7  | 3.6                 | 4.9  | 4.7            | 4.5   | 3.4             | 5.1  | 5.0            | 4.8   | 3.4               | 5.5   | 5.1            | 4.8   |
| 2.7              | 4.6  | 4.4            | 4.5  | 2.5               | 2.8  | 3.3      | 3.3  | 3.3                 | 4.2  | 4.3            | 4.2   | 2.3             | 2.4  | 2.9            | 2.9   | 3.6               | 4.7   | 4.6            | 4.7   |
| .....            | 8.4  | 8.5            | 8.5  | .....             | 10.1 | 10.5     | 10.3 | .....               | 10.4 | 9.8            | 9.6   | .....           | 8.2  | 8.3            | 8.4   | .....             | 9.2   | 8.6            | 8.5   |
| .....            | 9.9  | 10.2           | 10.2 | .....             | 9.8  | 9.7      | 9.7  | .....               | 10.0 | 9.6            | 9.5   | .....           | 9.4  | 9.0            | 9.1   | .....             | 9.9   | 9.9            | 9.9   |
| .....            | 27.0 | 25.2           | 25.2 | .....             | 26.5 | 24.5     | 25.1 | .....               | 24.7 | 23.0           | 23.2  | .....           | 24.7 | 23.6           | 23.6  | .....             | 26.4  | 24.9           | 25.1  |
| .....            | 21.3 | 21.9           | 21.5 | .....             | 21.9 | 21.3     | 20.9 | .....               | 16.7 | 15.5           | 15.6  | .....           | 17.6 | 16.5           | 16.6  | .....             | 24.8  | 24.9           | 24.9  |
| 8.7              | 9.7  | 9.5            | 9.5  | 8.3               | 8.5  | 7.7      | 7.8  | 7.7                 | 9.7  | 9.5            | 9.5   | 8.1             | 9.1  | 8.0            | 8.4   | 8.8               | 9.1   | 9.0            | 9.2   |
| .....            | 12.4 | 11.6           | 10.7 | .....             | 12.0 | 12.0     | 11.1 | .....               | 9.6  | 9.7            | 9.7   | .....           | 12.4 | 9.9            | 9.7   | .....             | 11.8  | 11.2           | 10.5  |
| 1.9              | 2.3  | 2.8            | 2.3  | 2.0               | 3.5  | 3.8      | 3.8  | 1.8                 | 2.3  | 3.6            | 3.4   | 1.9             | 2.1  | 3.6            | 3.0   | 1.9               | 2.2   | 5.0            | 4.3   |
| .....            | 6.5  | 7.5            | 6.9  | .....             | 7.0  | 8.2      | 7.4  | .....               | 4.8  | 6.9            | 6.0   | .....           | 4.9  | 4.9            | 4.7   | .....             | 6.4   | 7.6            | 7.0   |
| .....            | 3.5  | 3.7            | 4.4  | .....             | 5.5  | 6.8      | 6.3  | .....               | 3.9  | 4.1            | 3.8   | .....           | 3.7  | 4.1            | 4.7   | .....             | 3.8   | 7.4            | 4.8   |
| .....            | 14.6 | 14.0           | 14.2 | .....             | 13.3 | 13.1     | 13.2 | .....               | 14.1 | 13.1           | 13.0  | .....           | 12.2 | 11.6           | 11.3  | .....             | 15.2  | 14.5           | 14.5  |
| .....            | 13.6 | 13.6           | 13.9 | .....             | 15.1 | 15.5     | 15.3 | .....               | 17.3 | 16.6           | 15.9  | .....           | 14.9 | 13.5           | 13.5  | .....             | 18.2  | 17.5           | 17.5  |
| .....            | 15.5 | 15.2           | 15.4 | .....             | 19.5 | 18.3     | 18.4 | .....               | 19.3 | 18.9           | 18.4  | .....           | 16.6 | 15.5           | 15.5  | .....             | 21.8  | 20.9           | 20.9  |
| .....            | 14.2 | 13.9           | 13.7 | .....             | 14.5 | 13.3     | 13.2 | .....               | 15.6 | 15.5           | 14.9  | .....           | 13.5 | 11.6           | 11.7  | .....             | 220.0 | 220.9          | 221.1 |
| 5.7              | 8.4  | 10.6           | 9.8  | 5.8               | 8.9  | 11.3     | 10.3 | 5.6                 | 8.2  | 10.1           | 9.5   | 5.5             | 8.3  | 10.6           | 9.8   | 5.6               | 8.4   | 10.8           | 10.0  |
| 54.0             | 81.9 | 79.7           | 79.6 | 50.0              | 92.3 | 91.4     | 90.4 | 54.5                | 71.7 | 69.4           | 69.4  | 62.5            | 76.2 | 71.5           | 73.4  | 47.0              | 57.4  | 57.7           | 57.7  |
| 27.8             | 37.6 | 39.1           | 39.4 | 30.8              | 39.2 | 41.0     | 40.9 | 36.3                | 38.7 | 39.4           | 39.2  | 27.5            | 35.3 | 36.3           | 36.3  | 32.0              | 38.3  | 39.6           | 39.6  |
| .....            | 21.0 | 19.4           | 18.9 | .....             | 22.3 | 21.1     | 20.6 | .....               | 20.1 | 18.8           | 18.8  | .....           | 19.5 | 19.1           | 18.4  | .....             | 20.2  | 18.6           | 18.4  |
| .....            | 26.3 | 20.4           | 19.7 | .....             | 24.6 | 19.7     | 19.7 | .....               | 22.8 | 17.5           | 17.2  | .....           | 23.9 | 17.6           | 17.3  | .....             | 21.8  | 16.3           | 16.2  |
| .....            | 11.1 | 13.0           | 13.2 | .....             | 8.9  | 10.5     | 10.2 | .....               | 10.5 | 11.5           | 11.8  | .....           | 30.5 | 37.1           | 38.1  | .....             | 10.0  | 12.1           | 12.2  |
| .....            | 60.0 | 52.6           | 48.2 | .....             | 72.5 | 47.7     | 48.7 | .....               | 44.5 | 38.0           | 37.0  | .....           | 50.5 | 44.0           | 42.2  | .....             | 60.5  | 53.9           | 50.7  |

<sup>2</sup> No. 3 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 15, 1923. | Aug. 15, 1923. | Aug. 15—        |           | July 15, 1923. | Aug. 15, 1923. | Aug. 15—           |           | July 15, 1923. | Aug. 15, 1923. |
|                                |                    | 1913           | 1922      | 1923.          | 1923.          | 1913            | 1922      | 1923.          | 1923.          | 1913               | 1922      | 1923.          | 1923.          |
| Sirloin steak.....             | Pound.....         | Cts. 22.9      | Cts. 31.9 | Cts. 35.0      | Cts. 35.4      | Cts. 22.6       | Cts. 33.3 | Cts. 39.5      | Cts. 39.7      | Cts. 24.2          | Cts. 32.9 | Cts. 35.4      | Cts. 34.2      |
| Round steak.....               | do.....            | 19.1           | 28.6      | 30.2           | 31.5           | 21.2            | 33.8      | 35.1           | 35.2           | 21.7               | 29.1      | 31.4           | 30.8           |
| Rib roast.....                 | do.....            | 21.5           | 24.4      | 26.2           | 26.5           | 18.8            | 26.7      | 27.3           | 27.2           | 21.0               | 24.7      | 26.4           | 26.2           |
| Chuck roast.....               | do.....            | 15.6           | 17.3      | 19.4           | 19.6           | 16.4            | 21.5      | 21.5           | 21.7           | 17.0               | 18.8      | 20.7           | 19.9           |
| Plate beef.....                | do.....            | 11.9           | 12.5      | 13.6           | 13.5           | 12.0            | 11.7      | 11.8           | 11.7           | 10.3               | 8.9       | 9.9            | 9.9            |
| Pork chops.....                | do.....            | 20.0           | 29.8      | 25.7           | 27.4           | 20.2            | 36.0      | 31.4           | 33.3           | 20.0               | 33.9      | 29.3           | 30.8           |
| Bacon, sliced.....             | do.....            | 32.1           | 38.1      | 37.5           | 37.1           | 28.6            | 41.8      | 41.2           | 41.1           | 27.7               | 43.8      | 41.5           | 41.5           |
| Ham, sliced.....               | do.....            | 30.7           | 51.8      | 44.6           | 43.8           | 29.0            | 47.8      | 45.0           | 45.0           | 32.7               | 51.8      | 46.8           | 46.9           |
| Lamb, leg of.....              | do.....            | 20.1           | 35.0      | 37.3           | 37.3           | 20.5            | 35.9      | 40.2           | 38.2           | 14.4               | 33.1      | 35.9           | 34.0           |
| Hens.....                      | do.....            | 20.0           | 29.4      | 28.5           | 28.1           | 19.8            | 32.2      | 31.5           | 31.5           | 18.5               | 29.6      | 28.6           | 28.8           |
| Salmon, canned, red.....       | do.....            | 36.4           | 34.7      | 35.6           | 35.6           | 32.3            | 34.5      | 35.2           | 35.2           | 39.0               | 36.8      | 36.4           | 36.4           |
| Milk, fresh.....               | Quart.....         | 10.0           | 16.0      | 15.0           | 15.0           | 7.0             | 9.0       | 11.0           | 11.0           | 7.0                | 10.0      | 11.0           | 12.0           |
| Milk, evaporated.....          | 15-16-oz. can..... | 10.9           | 12.8      | 12.9           | 12.9           | 10.4            | 11.6      | 11.7           | 11.7           | 11.4               | 12.4      | 12.6           | 12.6           |
| Butter.....                    | Pound.....         | 37.0           | 41.0      | 47.1           | 48.7           | 32.2            | 39.6      | 45.1           | 49.3           | 31.4               | 37.1      | 44.1           | 47.0           |
| Oleomargarine.....             | do.....            | 30.0           | 30.0      | 31.7           | 31.7           | 24.5            | 26.8      | 26.9           | 26.9           | 26.1               | 27.5      | 27.5           | 27.5           |
| Nut margarine.....             | do.....            | 26.3           | 25.0      | 25.2           | 25.2           | 24.0            | 25.5      | 25.6           | 25.6           | 24.8               | 25.8      | 25.6           | 25.6           |
| Cheese.....                    | do.....            | 20.8           | 28.9      | 33.7           | 33.5           | 21.3            | 29.5      | 34.6           | 34.9           | 20.8               | 30.9      | 34.7           | 35.2           |
| Lard.....                      | do.....            | 16.5           | 15.9      | 15.8           | 15.6           | 16.3            | 17.5      | 17.5           | 17.5           | 15.6               | 16.9      | 17.0           | 17.0           |
| Vegetable lard substitute..... | do.....            | 21.4           | 22.9      | 22.4           | 22.4           | 21.9            | 23.2      | 23.6           | 23.6           | 23.9               | 24.5      | 24.8           | 24.8           |
| Eggs, strictly fresh.....      | Dozen.....         | 29.3           | 30.5      | 32.3           | 34.3           | 26.2            | 29.2      | 29.1           | 32.4           | 25.3               | 28.8      | 29.3           | 31.8           |
| Bread.....                     | Pound.....         | 6.0            | 9.1       | 8.9            | 8.9            | 5.6             | 8.9       | 8.9            | 8.9            | 5.6                | 9.0       | 9.0            | 9.0            |
| Flour.....                     | do.....            | 3.4            | 5.2       | 5.3            | 4.9            | 3.1             | 4.7       | 4.1            | 4.0            | 3.0                | 5.0       | 4.4            | 4.4            |
| Corn meal.....                 | do.....            | 2.2            | 2.6       | 3.1            | 3.2            | 3.3             | 3.7       | 3.9            | 3.8            | 2.4                | 3.9       | 4.1            | 3.8            |
| Rollod oats.....               | do.....            | 8.8            | 9.4       | 9.3            | 9.3            | 8.8             | 6.8       | 7.1            | 7.2            | 7.7                | 8.8       | 8.8            | 8.8            |
| Corn flakes.....               | 8-oz. pkg.....     | 9.6            | 9.7       | 9.7            | 9.7            | 9.1             | 9.2       | 9.1            | 9.1            | 10.3               | 10.2      | 10.2           | 10.2           |
| Wheat cereal.....              | 28-oz. pkg.....    | 26.1           | 24.4      | 24.4           | 24.4           | 24.8            | 24.2      | 24.3           | 24.3           | 25.0               | 24.4      | 24.4           | 24.4           |
| Macaroni.....                  | Pound.....         | 17.1           | 17.5      | 17.5           | 17.5           | 17.6            | 17.2      | 17.4           | 17.4           | 17.5               | 17.8      | 17.4           | 17.4           |
| Rice.....                      | do.....            | 7.5            | 8.2       | 7.9            | 7.9            | 9.0             | 10.2      | 9.8            | 10.4           | 9.1                | 9.6       | 9.3            | 9.3            |
| Beans, navy.....               | do.....            | 11.3           | 11.4      | 10.9           | 10.9           | 11.6            | 11.5      | 11.0           | 11.0           | 10.8               | 11.7      | 11.1           | 11.1           |
| Potatoes.....                  | do.....            | 2.1            | 3.5       | 3.9            | 3.8            | 1.5             | 2.2       | 4.1            | 2.8            | 1.0                | 1.5       | 2.4            | 1.6            |
| Onions.....                    | do.....            | 5.0            | 6.2       | 5.0            | 5.0            | 5.6             | 7.9       | 6.4            | 6.4            | 5.7                | 8.1       | 6.9            | 6.9            |
| Cabbage.....                   | do.....            | 3.8            | 4.5       | 4.2            | 4.2            | 1.7             | 5.9       | 3.4            | 3.4            | 2.3                | 5.4       | 3.6            | 3.6            |
| Beans, baked.....              | No. 2 can.....     | 13.3           | 13.0      | 13.0           | 13.0           | 11.5            | 11.6      | 11.6           | 11.6           | 15.8               | 13.9      | 13.9           | 13.9           |
| Corn, canned.....              | do.....            | 14.2           | 15.4      | 15.4           | 15.4           | 15.2            | 15.0      | 14.9           | 14.9           | 14.1               | 13.2      | 13.3           | 13.3           |
| Peas, canned.....              | do.....            | 18.5           | 18.5      | 18.3           | 18.3           | 15.8            | 15.5      | 15.4           | 15.4           | 15.3               | 16.0      | 16.1           | 16.1           |
| Tomatoes, canned.....          | do.....            | 13.2           | 13.3      | 13.2           | 13.2           | 14.5            | 13.8      | 14.0           | 14.0           | 15.4               | 14.7      | 14.8           | 14.8           |
| Sugar, granulated.....         | Pound.....         | 5.7            | 7.9       | 10.8           | 9.8            | 5.5             | 8.0       | 10.3           | 9.3            | 5.8                | 8.3       | 10.7           | 9.3            |
| Tea.....                       | do.....            | 63.8           | 85.2      | 84.5           | 85.3           | 50.0            | 67.6      | 70.8           | 70.3           | 45.0               | 64.4      | 65.0           | 65.3           |
| Coffee.....                    | do.....            | 27.5           | 36.5      | 37.4           | 37.7           | 27.5            | 32.5      | 34.9           | 34.7           | 30.8               | 40.7      | 41.9           | 41.5           |
| Prunes.....                    | do.....            | 20.8           | 19.0      | 19.5           | 19.5           | 20.8            | 20.1      | 19.6           | 19.6           | 22.8               | 21.1      | 19.8           | 19.8           |
| Raisins.....                   | do.....            | 25.3           | 18.7      | 19.3           | 19.3           | 22.9            | 17.4      | 17.2           | 17.2           | 23.1               | 17.8      | 17.8           | 17.8           |
| Bananas.....                   | Dozen.....         | 30.5           | 37.5      | 35.0           | 35.0           | 38.8            | 30.9      | 31.0           | 31.0           | 31.0               | 31.0      | 31.0           | 31.0           |
| Oranges.....                   | do.....            | 71.0           | 53.8      | 49.7           | 49.7           | 61.9            | 52.6      | 50.0           | 50.0           | 65.3               | 53.7      | 53.4           | 53.4           |

<sup>1</sup> Whole.<sup>2</sup> No. 3 can.<sup>3</sup> Per pound.



# RETAIL PRICES OF FOOD.

41

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, 1922. | July 15, 1923. | Aug. 15, 1923. | Aug. 15—      |      | July 15, 1923. | Aug. 15, 1923. | Aug. 15—         |      | July 15, 1923. | Aug. 15, 1923. | Aug. 15—         |      | July 15, 1923. | Aug. 15, 1923. | Aug. 15—        |      | July 15, 1923. | Aug. 15, 1923. |
|                |                |                | 1913          | 1922 | 1923.          | 1923.          | 1913             | 1922 | 1923.          | 1923.          | 1913             | 1922 | 1923.          | 1923.          | 1913            | 1922 | 1923.          | 1923.          |
| Cts.           | Cts.           | Cts.           | Cts.          | Cts. | Cts.           | Cts.           | Cts.             | Cts. | Cts.           | Cts.           | Cts.             | Cts. | Cts.           | Cts.           | Cts.            | Cts. | Cts.           | Cts.           |
| 29.6           | 32.1           | 32.1           | 29.2          | 43.1 | 47.9           | 47.8           | 32.8             | 49.1 | 51.5           | 54.1           | 21.9             | 31.4 | 33.2           | 32.4           | 26.8            | 43.3 | 45.3           | 45.5           |
| 29.6           | 31.3           | 30.8           | 28.4          | 41.8 | 45.3           | 44.5           | 30.4             | 40.8 | 42.4           | 44.2           | 18.9             | 28.3 | 29.8           | 29.1           | 26.1            | 42.1 | 43.7           | 43.5           |
| 24.8           | 26.0           | 26.3           | 21.2          | 33.7 | 38.1           | 36.5           | 24.2             | 34.6 | 36.0           | 36.8           | 19.4             | 27.3 | 28.3           | 27.6           | 21.9            | 36.0 | 38.1           | 37.7           |
| 19.8           | 20.3           | 19.8           | 18.8          | 22.2 | 23.5           | 25.0           | 20.0             | 24.8 | 26.9           | 28.1           | 14.5             | 19.6 | 19.9           | 19.4           | 16.3            | 21.8 | 23.2           | 23.2           |
| 15.8           | 15.4           | 15.0           | 12.0          | 11.7 | 12.9           | 12.9           | 14.4             | 14.3 | 14.8           | 11.0           | 14.5             | 14.1 | 14.1           | 14.1           | 14.9            | 17.8 | 18.4           | 18.2           |
| 33.3           | 32.9           | 33.8           | 24.2          | 37.4 | 32.6           | 33.5           | 23.4             | 35.9 | 32.8           | 32.8           | 23.8             | 37.0 | 31.1           | 31.2           | 22.2            | 37.7 | 33.5           | 34.6           |
| 42.4           | 39.8           | 39.8           | 26.4          | 38.7 | 38.2           | 38.5           | 29.3             | 40.9 | 40.0           | 40.3           | 33.1             | 41.7 | 39.2           | 39.7           | 26.4            | 39.1 | 37.8           | 38.1           |
| 48.5           | 44.1           | 45.5           | 22.2          | 32.0 | 28.0           | 29.2           | 34.0             | 58.2 | 52.7           | 53.7           | 31.3             | 47.3 | 41.9           | 42.5           | 30.0            | 55.2 | 52.4           | 52.0           |
| 32.6           | 35.6           | 35.6           | 20.0          | 37.2 | 41.4           | 39.7           | 19.2             | 40.0 | 43.8           | 40.4           | 21.3             | 39.0 | 40.3           | 39.5           | 15.8            | 34.9 | 38.1           | 36.2           |
| 35.5           | 33.6           | 33.3           | 24.0          | 37.6 | 36.2           | 36.2           | 24.0             | 40.8 | 39.1           | 39.3           | 21.7             | 36.2 | 35.5           | 35.5           | 22.0            | 36.5 | 35.9           | 36.2           |
| 30.7           | 29.2           | 28.8           | 29.3          | 27.4 | 27.3           | 27.3           | 33.9             | 33.6 | 34.2           | 34.2           | 36.4             | 39.0 | 40.8           | 40.8           | 29.4            | 28.6 | 28.9           |                |
| 15.0           | 15.0           | 15.0           | 9.0           | 16.5 | 15.5           | 15.5           | 9.0              | 15.0 | 15.0           | 15.0           | 9.3              | 14.0 | 14.0           | 14.0           | 9.0             | 15.0 | 14.0           | 14.0           |
| 11.1           | 13.0           | 13.0           | 10.2          | 11.9 | 11.9           | 11.9           | 10.7             | 12.6 | 12.5           | 12.5           | 10.5             | 11.8 | 11.9           | 11.9           | 10.0            | 10.0 | 11.8           | 11.8           |
| 46.8           | 51.1           | 52.4           | 35.8          | 43.9 | 48.4           | 52.8           | 34.0             | 43.9 | 48.1           | 50.9           | 34.0             | 45.0 | 49.9           | 50.7           | 34.3            | 42.5 | 47.7           | 52.0           |
| 30.0           | 36.3           | 29.8           | 28.3          | 28.4 | 29.4           | 29.4           | 28.6             | 31.4 | 31.0           | 31.0           | 27.8             | 29.6 | 29.5           | 29.5           | 27.8            | 29.8 | 29.8           | 29.2           |
| 26.9           | 27.5           | 27.5           | 24.8          | 26.9 | 26.9           | 26.9           | 26.7             | 27.7 | 28.0           | 28.0           | 26.4             | 28.8 | 28.0           | 28.0           | 25.1            | 26.5 | 26.4           |                |
| 30.1           | 35.0           | 35.4           | 24.3          | 34.2 | 38.8           | 39.8           | 22.0             | 31.8 | 36.6           | 36.9           | 22.0             | 31.1 | 35.0           | 35.2           | 19.4            | 32.5 | 37.8           | 38.3           |
| 16.8           | 17.0           | 16.8           | 16.5          | 17.1 | 16.8           | 16.8           | 15.8             | 16.5 | 16.8           | 16.8           | 15.4             | 16.5 | 16.1           | 16.1           | 16.2            | 17.5 | 18.0           | 17.9           |
| 23.1           | 18.9           | 18.6           | 22.0          | 22.4 | 22.4           | 22.4           | 21.7             | 22.3 | 22.3           | 22.3           | 23.3             | 22.6 | 22.8           | 22.8           | 22.3            | 23.3 | 23.3           | 23.6           |
| 36.3           | 36.2           | 35.8           | 42.2          | 50.6 | 47.4           | 54.8           | 42.6             | 53.3 | 49.1           | 57.9           | 30.4             | 33.6 | 34.6           | 35.9           | 38.6            | 45.0 | 48.0           | 52.3           |
| 8.2            | 8.9            | 8.7            | 5.6           | 8.6  | 8.5            | 8.5            | 6.0              | 8.1  | 8.0            | 8.0            | 5.1              | 7.7  | 7.6            | 7.6            | 6.1             | 9.7  | 9.6            | 9.6            |
| 5.4            | 5.3            | 5.0            | 3.7           | 5.3  | 4.7            | 4.5            | 3.3              | 5.1  | 4.6            | 4.4            | 3.7              | 5.7  | 5.7            | 5.3            | 3.3             | 5.4  | 4.9            | 4.7            |
| 3.2            | 3.4            | 3.6            | 3.6           | 5.9  | 6.0            | 6.0            | 3.2              | 6.0  | 5.7            | 5.8            | 2.8              | 3.0  | 3.4            | 3.6            | 3.4             | 5.4  | 5.1            | 5.2            |
| 9.1            | 8.9            | 8.5            | 7.5           | 8.2  | 8.3            | 8.3            | 8.7              | 8.7  | 8.6            | 8.6            | 8.9              | 8.6  | 8.6            | 8.6            | 8.0             | 8.3  | 8.2            |                |
| 9.7            | 9.3            | 9.3            | 8.9           | 8.8  | 8.8            | 8.8            | 9.4              | 9.6  | 9.5            | 9.5            | 9.6              | 9.3  | 9.3            | 9.3            | 8.5             | 8.6  | 8.7            |                |
| 25.3           | 23.5           | 23.6           | 25.4          | 23.7 | 23.5           | 23.5           | 24.8             | 23.6 | 23.4           | 23.4           | 24.6             | 23.8 | 23.9           | 23.9           | 24.9            | 22.9 | 22.8           |                |
| 20.0           | 20.0           | 20.1           | 21.5          | 21.4 | 21.2           | 21.2           | 21.8             | 22.8 | 22.7           | 22.7           | 9.7              | 8.9  | 8.8            | 8.8            | 20.9            | 20.4 | 20.3           |                |
| 8.6            | 8.8            | 8.6            | 9.0           | 9.1  | 9.1            | 9.3            | 9.8              | 9.6  | 9.6            | 7.4            | 9.1              | 8.8  | 8.8            | 8.0            | 9.0             | 8.9  | 9.2            |                |
| 12.7           | 11.8           | 11.8           | 11.7          | 10.9 | 10.9           | 10.9           | 11.4             | 11.4 | 10.7           | 10.7           | 11.0             | 10.3 | 10.0           | 10.0           | 11.0            | 11.8 | 11.7           |                |
| 4.0            | 3.7            | 4.1            | 2.6           | 2.3  | 5.0            | 4.4            | 2.1              | 2.0  | 5.0            | 4.0            | 2.2              | 3.7  | 3.3            | 3.8            | 2.4             | 2.5  | 5.1            | 4.1            |
| 6.2            | 6.8            | 6.4            | 6.2           | 7.3  | 6.9            | 6.9            | 6.6              | 8.6  | 7.2            | 7.2            | 4.7              | 5.0  | 5.0            | 5.0            | 5.6             | 7.8  | 6.7            |                |
| 4.5            | 5.6            | 5.2            | 4.0           | 6.0  | 6.4            | 6.4            | 3.6              | 5.6  | 5.3            | 5.3            | 4.2              | 4.8  | 4.4            | 4.4            | 2.9             | 5.3  | 5.9            |                |
| 13.4           | 12.2           | 12.4           | 11.4          | 10.9 | 10.9           | 10.9           | 12.5             | 12.1 | 12.1           | 12.1           | 12.7             | 12.7 | 12.8           | 12.8           | 11.8            | 11.7 | 11.9           |                |
| 15.4           | 15.3           | 15.6           | 15.1          | 14.4 | 14.4           | 14.4           | 18.3             | 18.4 | 18.4           | 18.4           | 12.9             | 13.1 | 13.1           | 13.1           | 14.1            | 15.3 | 15.4           |                |
| 17.0           | 15.9           | 15.3           | 17.5          | 17.0 | 17.1           | 17.1           | 21.1             | 20.8 | 20.9           | 20.9           | 16.6             | 17.4 | 17.5           | 17.5           | 16.1            | 16.8 | 16.9           |                |
| 13.5           | 12.4           | 12.2           | 12.6          | 11.8 | 11.9           | 11.9           | 22.8             | 21.8 | 21.5           | 21.5           | 13.0             | 11.7 | 11.7           | 11.7           | 12.1            | 11.8 | 12.0           |                |
| 8.6            | 10.9           | 9.6            | 5.3           | 7.7  | 10.3           | 9.1            | 5.4              | 7.9  | 10.5           | 9.7            | 5.3              | 7.6  | 9.8            | 8.9            | 5.0             | 7.6  | 9.6            | 9.0            |
| 75.0           | 74.3           | 73.9           | 53.8          | 48.9 | 54.5           | 54.3           | 55.0             | 56.6 | 57.7           | 57.0           | 62.1             | 71.3 | 69.0           | 70.9           | 43.3            | 48.5 | 55.9           | 57.3           |
| 35.7           | 37.7           | 37.2           | 29.3          | 33.0 | 35.6           | 35.5           | 33.8             | 37.9 | 39.8           | 39.8           | 26.4             | 30.8 | 32.5           | 30.9           | 27.2            | 32.9 | 34.5           | 34.5           |
| 24.4           | 22.0           | 23.3           | 18.5          | 16.4 | 15.7           | 15.7           | 19.5             | 18.5 | 18.3           | 18.3           | 22.1             | 19.7 | 19.3           | 19.3           | 19.7            | 17.3 | 1.71           |                |
| 25.9           | 18.2           | 20.0           | 21.0          | 15.4 | 15.4           | 15.4           | 22.2             | 16.4 | 16.2           | 16.2           | 25.2             | 18.3 | 18.1           | 18.1           | 21.6            | 15.8 | 15.9           |                |
| 26.1           | 31.8           | 31.3           | 37.5          | 39.3 | 39.3           | 39.3           | 31.9             | 34.2 | 33.8           | 33.8           | 22.5             | 24.0 | 23.0           | 23.0           | 40.7            | 44.6 | 42.5           |                |
| 68.3           | 51.7           | 51.8           | 78.0          | 57.4 | 61.9           | 61.9           | 62.9             | 54.8 | 48.2           | 48.2           | 66.0             | 53.8 | 50.0           | 50.0           | 76.2            | 60.1 | 56.1           |                |

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTI

| Article.                       | Unit.              | Norfolk, Va.         |                      |                      | Omaha, Nebr. |             |                      |                      | Peoria, Ill.         |                      |                      |
|--------------------------------|--------------------|----------------------|----------------------|----------------------|--------------|-------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                                |                    | Aug.<br>15,<br>1922. | July<br>15,<br>1923. | Aug.<br>15,<br>1923. | Aug. 15—     |             | July<br>15,<br>1923. | Aug.<br>15,<br>1923. | Aug.<br>15,<br>1922. | July<br>15,<br>1923. | Aug.<br>15,<br>1923. |
|                                |                    |                      |                      |                      | 1913         | 1922        |                      |                      |                      |                      |                      |
|                                |                    | <i>Cts.</i>          | <i>Cts.</i>          | <i>Cts.</i>          | <i>Cts.</i>  | <i>Cts.</i> | <i>Cts.</i>          | <i>Cts.</i>          | <i>Cts.</i>          | <i>Cts.</i>          | <i>Cts.</i>          |
| Sirloin steak.....             | Pound.....         | 38.4                 | 42.1                 | 42.6                 | 25.4         | 35.7        | 37.0                 | 37.4                 | 33.7                 | 36.1                 | 35.1                 |
| Round steak.....               | do.....            | 32.2                 | 36.2                 | 36.5                 | 22.8         | 33.9        | 34.6                 | 34.6                 | 32.3                 | 34.8                 | 34.4                 |
| Rib roast.....                 | do.....            | 30.8                 | 33.7                 | 34.1                 | 19.0         | 25.2        | 25.6                 | 25.5                 | 24.2                 | 24.0                 | 24.1                 |
| Chuck roast.....               | do.....            | 19.9                 | 20.4                 | 21.5                 | 16.2         | 19.6        | 20.4                 | 21.2                 | 19.7                 | 20.5                 | 20.5                 |
| Plate beef.....                | do.....            | 13.5                 | 15.0                 | 14.3                 | 11.8         | 10.4        | 10.0                 | 10.0                 | 12.6                 | 12.8                 | 12.8                 |
| Pork chops.....                | do.....            | 31.3                 | 30.1                 | 30.1                 | 20.4         | 32.7        | 28.0                 | 30.0                 | 32.7                 | 28.3                 | 29.9                 |
| Bacon, sliced.....             | do.....            | 37.5                 | 34.5                 | 34.5                 | 28.6         | 46.7        | 45.0                 | 45.0                 | 42.9                 | 41.1                 | 41.8                 |
| Ham, sliced.....               | do.....            | 44.2                 | 38.5                 | 41.2                 | 30.0         | 55.4        | 48.8                 | 50.6                 | 51.4                 | 45.4                 | 45.7                 |
| Lamb, leg of.....              | do.....            | 37.8                 | 41.4                 | 39.9                 | 18.0         | 38.6        | 37.7                 | 37.3                 | 34.4                 | 36.3                 | 36.1                 |
| Hens.....                      | do.....            | 34.8                 | 35.8                 | 35.8                 | 16.4         | 29.4        | 28.6                 | 28.6                 | 31.5                 | 30.8                 | 30.6                 |
| Salmon, canned, red.....       | do.....            | 30.3                 | 28.8                 | 28.8                 | .....        | 33.3        | 33.7                 | 33.7                 | 32.7                 | 32.3                 | 32.7                 |
| Milk, fresh.....               | Quart.....         | 17.0                 | 17.0                 | 17.0                 | 8.2          | 11.0        | 12.2                 | 12.2                 | 10.2                 | 11.6                 | 11.6                 |
| Milk, evaporated.....          | 15-16-oz. can..... | 10.3                 | 11.3                 | 11.4                 | .....        | 10.5        | 12.0                 | 11.9                 | 10.9                 | 12.1                 | 12.0                 |
| Butter.....                    | Pound.....         | 45.9                 | 50.1                 | 53.1                 | 33.0         | 39.0        | 44.2                 | 48.2                 | 39.4                 | 45.4                 | 49.3                 |
| Oleomargarine.....             | do.....            | 27.0                 | 28.3                 | 28.3                 | .....        | 29.3        | 28.9                 | 28.8                 | 27.5                 | 29.3                 | 29.4                 |
| Nut margarine.....             | do.....            | 26.2                 | 27.2                 | 26.8                 | .....        | 28.5        | 27.9                 | 28.6                 | 26.9                 | 27.0                 | 27.0                 |
| Cheese.....                    | do.....            | 28.7                 | 32.6                 | 32.8                 | 22.9         | 30.7        | 35.1                 | 35.3                 | 31.5                 | 35.3                 | 35.3                 |
| Lard.....                      | do.....            | 17.1                 | 15.8                 | 16.1                 | 17.8         | 19.4        | 18.9                 | 18.9                 | 17.0                 | 17.0                 | 17.0                 |
| Vegetable lard substitute..... | do.....            | 21.6                 | 17.5                 | 17.8                 | .....        | 24.6        | 22.7                 | 24.0                 | 23.4                 | 24.5                 | 24.4                 |
| Eggs, strictly fresh.....      | Dozen.....         | 34.9                 | 36.1                 | 38.9                 | 23.3         | 28.6        | 30.0                 | 31.5                 | 27.9                 | 28.0                 | 30.0                 |
| Bread.....                     | Pound.....         | 7.9                  | 7.9                  | 7.8                  | 5.2          | 9.9         | 9.8                  | 9.8                  | 8.7                  | 8.0                  | 8.0                  |
| Flour.....                     | do.....            | 4.9                  | 4.5                  | 4.5                  | 2.7          | 4.2         | 4.0                  | 3.9                  | 5.2                  | 4.6                  | 4.5                  |
| Corn meal.....                 | do.....            | 3.5                  | 3.6                  | 3.7                  | 2.4          | 3.3         | 3.6                  | 3.7                  | 3.6                  | 3.8                  | 3.7                  |
| Rolled oats.....               | do.....            | 8.0                  | 7.8                  | 8.0                  | .....        | 10.8        | 10.0                 | 9.9                  | 8.7                  | 9.5                  | 9.4                  |
| Corn flakes.....               | 8-oz. pkg.....     | 9.3                  | 9.3                  | 9.3                  | .....        | 10.4        | 10.6                 | 10.3                 | 10.1                 | 10.1                 | 10.0                 |
| Wheat cereal.....              | 28-oz. pkg.....    | 25.1                 | 23.6                 | 23.8                 | .....        | 25.4        | 23.9                 | 23.9                 | 27.5                 | 26.1                 | 26.2                 |
| Macaroni.....                  | Pound.....         | 19.8                 | 20.1                 | 19.8                 | .....        | 20.5        | 20.0                 | 20.0                 | 20.2                 | 19.8                 | 19.9                 |
| Rice.....                      | do.....            | 10.0                 | 9.5                  | 9.9                  | 8.5          | 9.4         | 8.8                  | 8.8                  | 10.7                 | 9.4                  | 9.6                  |
| Beans, navy.....               | do.....            | 11.0                 | 11.0                 | 10.8                 | .....        | 11.8        | 12.2                 | 11.7                 | 13.1                 | 11.9                 | 10.9                 |
| Potatoes.....                  | do.....            | 2.8                  | 3.8                  | 4.1                  | 1.7          | 2.0         | 2.5                  | 2.2                  | 2.3                  | 3.9                  | 2.9                  |
| Onions.....                    | do.....            | 7.8                  | 6.2                  | 6.8                  | .....        | 5.4         | 8.1                  | 6.9                  | 6.5                  | 8.9                  | 7.4                  |
| Cabbage.....                   | do.....            | 3.8                  | 4.7                  | 4.8                  | .....        | 2.0         | 4.4                  | 4.3                  | 3.8                  | 4.7                  | 4.2                  |
| Beans, baked.....              | No. 2 can.....     | 11.0                 | 9.9                  | 9.8                  | .....        | 15.7        | 15.2                 | 15.6                 | 13.6                 | 13.1                 | 12.9                 |
| Corn, canned.....              | do.....            | 15.4                 | 15.8                 | 15.7                 | .....        | 16.4        | 16.0                 | 16.3                 | 14.6                 | 14.9                 | 14.2                 |
| Peas, canned.....              | do.....            | 18.8                 | 18.8                 | 18.7                 | .....        | 16.8        | 17.3                 | 17.3                 | 17.0                 | 17.0                 | 17.0                 |
| Tomatoes, canned.....          | do.....            | 11.5                 | 12.0                 | 11.3                 | .....        | 14.5        | 14.4                 | 14.6                 | 14.8                 | 14.2                 | 14.1                 |
| Sugar, granulated.....         | Pound.....         | 7.8                  | 9.6                  | 8.6                  | 6.1          | 8.4         | 10.5                 | 9.9                  | 8.6                  | 11.4                 | 10.4                 |
| Tea.....                       | do.....            | 74.5                 | 81.1                 | 82.1                 | 56.0         | 76.7        | 74.9                 | 75.2                 | 62.1                 | 60.7                 | 60.4                 |
| Coffee.....                    | do.....            | 35.9                 | 38.1                 | 38.0                 | 30.0         | 39.6        | 41.1                 | 41.1                 | 35.3                 | 36.9                 | 36.7                 |
| Prunes.....                    | do.....            | 19.8                 | 18.5                 | 18.2                 | .....        | 21.7        | 20.9                 | 20.9                 | 22.9                 | 20.6                 | 20.9                 |
| Raisins.....                   | do.....            | 24.5                 | 17.4                 | 17.1                 | .....        | 26.7        | 20.1                 | 20.2                 | 25.4                 | 19.4                 | 19.4                 |
| Bananas.....                   | Dozen.....         | 33.5                 | 35.9                 | 36.3                 | .....        | 49.6        | 42.4                 | 42.5                 | 49.5                 | 41.3                 | 42.1                 |
| Oranges.....                   | do.....            | 68.9                 | 53.7                 | 55.0                 | .....        | 59.2        | 49.4                 | 49.5                 | 56.7                 | 49.8                 | 46.2                 |

<sup>1</sup> The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

# RETAIL PRICES OF FOOD.

43

CLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Continued.

| Philadelphia, Pa. |       |                |                | Pittsburgh, Pa. |      |                |                | Portland, Me.  |                |                | Portland, Oreg. |      |                |                | Providence, R. I. |       |                |                |
|-------------------|-------|----------------|----------------|-----------------|------|----------------|----------------|----------------|----------------|----------------|-----------------|------|----------------|----------------|-------------------|-------|----------------|----------------|
| Aug. 15—          |       | July 15, 1923. | Aug. 15, 1923. | Aug. 15—        |      | July 15, 1923. | Aug. 15, 1923. | Aug. 15, 1922. | July 15, 1923. | Aug. 15, 1923. | Aug. 15—        |      | July 15, 1923. | Aug. 15, 1923. | Aug. 15—          |       | July 15, 1923. | Aug. 15, 1923. |
| 1913              | 1922  |                |                | 1913            | 1922 |                |                |                |                |                | 1913            | 1922 |                |                | 1913              | 1922  |                |                |
| Cts.              | Cts.  | Cts.           | Cts.           | Cts.            | Cts. | Cts.           | Cts.           | Cts.           | Cts.           | Cts.           | Cts.            | Cts. | Cts.           | Cts.           | Cts.              | Cts.  | Cts.           | Cts.           |
| 132.3             | 149.0 | 153.7          | 153.3          | 28.0            | 42.8 | 45.9           | 46.4           | 157.8          | 160.1          | 160.5          | 23.9            | 29.1 | 28.4           | 28.1           | 140.2             | 165.0 | 169.2          | 170.0          |
| 27.5              | 40.2  | 42.7           | 43.2           | 24.8            | 35.6 | 38.7           | 38.2           | 45.2           | 46.8           | 47.5           | 21.4            | 26.7 | 24.9           | 24.8           | 31.6              | 47.4  | 50.4           | 50.6           |
| 22.5              | 32.6  | 34.7           | 34.6           | 22.5            | 30.8 | 32.2           | 32.0           | 29.3           | 29.5           | 29.1           | 19.9            | 24.6 | 24.0           | 24.2           | 24.2              | 36.0  | 38.6           | 38.3           |
| 18.4              | 20.3  | 21.1           | 22.0           | 17.3            | 21.3 | 21.5           | 21.3           | 19.3           | 20.1           | 20.2           | 16.4            | 17.2 | 16.8           | 16.1           | 18.8              | 26.1  | 27.7           | 28.8           |
| 12.3              | 10.0  | 9.8            | 10.2           | 12.3            | 11.2 | 10.7           | 11.0           | 13.8           | 15.3           | 15.2           | 13.6            | 12.6 | 12.1           | 11.9           | .....             | 16.6  | 17.2           | 17.9           |
| 22.4              | 37.4  | 34.2           | 34.6           | 23.5            | 34.3 | 33.8           | 34.6           | 35.9           | 32.4           | 32.5           | 24.4            | 35.3 | 29.4           | 29.9           | 21.6              | 40.4  | 36.8           | 36.5           |
| 28.2              | 38.7  | 36.6           | 37.0           | 30.1            | 42.5 | 41.4           | 41.7           | 36.9           | 38.2           | 38.5           | 31.5            | 45.9 | 45.3           | 45.3           | 23.4              | 35.1  | 36.7           | 36.7           |
| 32.6              | 55.9  | 52.1           | 53.7           | 31.6            | 54.9 | 53.7           | 54.4           | 57.0           | 47.4           | 47.7           | 31.2            | 50.8 | 47.8           | 47.2           | 33.3              | 56.6  | 53.7           | 53.4           |
| 20.2              | 38.3  | 41.9           | 40.0           | 19.7            | 36.7 | 41.6           | 38.8           | 39.6           | 41.2           | 40.2           | 17.2            | 31.4 | 33.0           | 32.4           | 18.7              | 41.1  | 45.4           | 43.0           |
| 23.1              | 39.6  | 38.3           | 38.1           | 26.0            | 40.3 | 40.4           | 40.1           | 42.6           | 41.3           | 40.8           | 20.7            | 32.7 | 32.4           | 31.3           | 24.8              | 39.8  | 40.5           | 40.0           |
| .....             | 27.8  | 26.2           | 26.2           | .....           | 29.4 | 28.8           | 28.9           | 28.7           | 28.3           | 27.9           | .....           | 41.4 | 35.0           | 35.0           | .....             | 31.9  | 31.3           | 31.0           |
| 8.0               | 11.0  | 13.0           | 13.0           | 8.6             | 12.3 | 14.0           | 14.0           | 13.5           | 14.0           | 14.0           | 9.3             | 12.8 | 12.6           | 12.6           | 9.0               | 14.0  | 14.6           | 15.0           |
| 10.8              | 12.2  | 12.2           | 12.2           | .....           | 10.3 | 12.1           | 12.1           | 11.8           | 13.6           | 13.6           | .....           | 11.4 | 12.0           | 12.0           | .....             | 11.5  | 12.5           | 12.4           |
| 39.4              | 49.0  | 53.4           | 56.6           | 35.6            | 44.4 | 49.4           | 52.3           | 48.9           | 53.5           | 55.2           | 39.5            | 51.6 | 49.1           | 52.9           | 36.0              | 45.0  | 49.7           | 52.0           |
| .....             | 27.3  | 29.3           | 29.3           | .....           | 26.4 | 28.6           | 27.8           | 30.0           | 30.9           | 30.6           | .....           | 29.4 | 29.3           | 29.3           | .....             | 29.4  | 30.0           | 30.0           |
| .....             | 26.0  | 28.2           | 27.4           | .....           | 25.9 | 27.0           | 26.4           | 28.0           | 27.1           | 27.5           | .....           | 28.3 | 27.2           | 27.6           | .....             | 27.1  | 28.1           | 28.0           |
| 25.0              | 34.4  | 38.5           | 38.5           | 24.5            | 31.7 | 37.3           | 37.2           | 33.2           | 38.6           | 39.1           | 20.8            | 34.9 | 36.8           | 37.1           | 21.7              | 31.1  | 36.0           | 35.9           |
| 15.6              | 16.4  | 16.1           | 16.0           | 15.8            | 16.2 | 15.2           | 15.1           | 17.7           | 17.6           | 17.2           | 18.6            | 20.1 | 19.4           | 19.3           | 15.7              | 16.8  | 16.7           | 16.6           |
| .....             | 22.0  | 22.7           | 23.0           | .....           | 22.1 | 23.5           | 23.5           | 22.8           | 22.6           | 22.6           | .....           | 25.8 | 24.8           | 24.7           | .....             | 22.9  | 23.5           | 23.2           |
| 34.3              | 36.2  | 34.5           | 43.3           | 28.9            | 36.5 | 37.1           | 40.1           | 48.8           | 43.6           | 53.3           | 33.8            | 31.9 | 32.6           | 40.1           | 38.4              | 53.5  | 48.4           | 57.9           |
| 4.8               | 8.7   | 8.4            | 8.4            | 5.4             | 8.2  | 8.5            | 8.5            | 9.4            | 9.3            | 9.3            | 5.6             | 9.4  | 9.4            | 9.2            | 5.9               | 8.9   | 8.8            | 8.8            |
| 3.2               | 5.3   | 4.6            | 4.6            | 3.2             | 5.1  | 4.4            | 4.3            | 5.2            | 4.8            | 4.6            | 2.9             | 4.6  | 4.5            | 4.3            | 3.5               | 5.6   | 5.1            | 4.8            |
| 2.7               | 3.6   | 3.6            | 3.7            | 2.8             | 4.6  | 4.2            | 4.1            | 4.0            | 4.4            | 4.5            | 3.3             | 3.4  | 3.6            | 3.6            | 2.8               | 3.9   | 4.1            | 4.0            |
| .....             | 8.0   | 8.4            | 8.3            | .....           | 9.0  | 9.0            | 9.0            | 6.8            | 7.0            | 7.0            | .....           | 9.5  | 9.5            | 9.3            | .....             | 9.4   | 9.2            | 9.3            |
| .....             | 9.0   | 8.9            | 8.8            | .....           | 9.6  | 9.6            | 9.6            | 9.8            | 9.7            | 9.7            | .....           | 11.2 | 11.5           | 11.4           | .....             | 10.0  | 9.7            | 9.7            |
| .....             | 25.0  | 23.9           | 24.2           | .....           | 25.4 | 25.6           | 25.4           | 25.9           | 24.9           | 24.5           | .....           | 28.6 | 25.7           | 25.4           | .....             | 26.5  | 24.3           | 24.1           |
| .....             | 20.7  | 20.6           | 20.5           | .....           | 20.4 | 21.3           | 21.8           | 23.5           | 23.6           | 23.1           | .....           | 17.4 | 18.5           | 18.4           | .....             | 22.3  | 22.1           | 22.1           |
| 9.8               | 10.0  | 10.4           | 10.2           | 9.2             | 9.9  | 9.6            | 9.9            | 10.6           | 10.6           | 10.7           | 8.6             | 10.3 | 9.0            | 9.2            | 9.3               | 9.7   | 9.3            | 9.6            |
| .....             | 10.2  | 11.5           | 11.4           | .....           | 11.8 | 11.2           | 10.7           | 11.0           | 11.2           | 11.1           | .....           | 9.9  | 10.2           | 9.9            | .....             | 11.0  | 11.0           | 10.6           |
| 2.1               | 2.2   | 5.1            | 4.4            | 1.9             | 2.3  | 4.7            | 4.2            | 2.4            | 4.2            | 4.2            | 1.3             | 2.9  | 2.8            | 2.1            | 2.0               | 2.2   | 4.8            | 4.0            |
| .....             | 4.9   | 7.1            | 6.4            | .....           | 6.6  | 7.8            | 6.7            | 6.4            | 7.9            | 6.3            | .....           | 3.6  | 5.2            | 4.1            | .....             | 5.5   | 7.7            | 6.3            |
| .....             | 2.6   | 5.8            | 4.7            | .....           | 3.8  | 5.9            | 5.0            | 4.6            | 6.1            | 4.1            | .....           | 3.8  | 3.6            | 3.1            | .....             | 3.0   | 4.6            | 4.2            |
| .....             | 12.1  | 11.1           | 11.2           | .....           | 13.7 | 12.6           | 12.6           | 15.4           | 15.7           | 15.8           | .....           | 17.2 | 15.9           | 15.2           | .....             | 13.2  | 12.4           | 12.4           |
| .....             | 14.9  | 14.5           | 14.7           | .....           | 14.4 | 14.8           | 15.0           | 16.1           | 16.0           | 15.8           | .....           | 17.0 | 17.3           | 17.4           | .....             | 17.3  | 17.1           | 17.0           |
| .....             | 16.1  | 16.5           | 16.9           | .....           | 15.4 | 16.3           | 16.3           | 20.8           | 20.4           | 20.4           | .....           | 17.8 | 17.0           | 17.0           | .....             | 20.1  | 20.0           | 20.1           |
| .....             | 13.1  | 12.9           | 12.9           | .....           | 13.1 | 12.8           | 12.8           | 22.8           | 22.8           | 22.5           | .....           | 15.5 | 16.2           | 16.2           | .....             | 14.2  | 13.6           | 13.7           |
| .....             | 5.0   | 7.4            | 10.0           | 9.2             | 5.7  | 8.2            | 10.7           | 9.7            | 8.3            | 10.4           | 9.6             | 6.4  | 8.1            | 10.4           | 9.8               | 5.2   | 7.9            | 10.6           |
| 54.0              | 59.9  | 57.9           | 59.2           | 58.0            | 74.3 | 75.1           | 75.1           | 56.5           | 57.5           | 58.1           | 55.0            | 63.1 | 65.0           | 65.7           | 48.3              | 58.8  | 60.7           | 61.1           |
| 24.5              | 31.1  | 31.6           | 31.0           | 30.0            | 35.7 | 37.8           | 37.7           | 39.8           | 41.4           | 41.4           | 35.0            | 37.2 | 37.1           | 37.1           | 30.0              | 40.1  | 41.6           | 41.6           |
| .....             | 17.3  | 16.3           | 16.8           | .....           | 20.3 | 20.6           | 20.1           | 19.6           | 18.1           | 17.8           | .....           | 19.8 | 12.0           | 13.0           | .....             | 20.1  | 19.6           | 19.3           |
| .....             | 21.9  | 16.3           | 16.5           | .....           | 22.8 | 16.9           | 16.5           | 21.6           | 15.6           | 15.5           | .....           | 23.4 | 17.3           | 17.5           | .....             | 22.2  | 17.1           | 16.9           |
| .....             | 29.7  | 34.3           | 32.9           | .....           | 39.1 | 44.7           | 44.7           | 41.0           | 41.5           | 41.8           | .....           | 43.4 | 45.5           | 45.4           | .....             | 33.3  | 38.1           | 37.3           |
| .....             | 60.3  | 51.0           | 48.5           | .....           | 61.8 | 55.5           | 53.1           | 69.6           | 57.4           | 56.7           | .....           | 63.0 | 50.4           | 50.7           | .....             | 80.1  | 61.7           | 59.2           |

<sup>2</sup> No. 3 can.

<sup>3</sup> No. 2½ can.

<sup>4</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, 1923. | Aug. 15, 1923. | Aug. 15, 1922.   | July 15, 1923. | Aug. 15, 1923. | Aug. 15— |                | July 15, 1923. | Aug. 15, 1923. |      |
|                                |                    | 1913          | 1922 | Cts.           | Cts.           | Cts.             | Cts.           | Cts.           | Cts.     | 1913           | 1922           | Cts.           | Cts. |
|                                |                    |               |      |                |                |                  |                |                |          |                |                |                |      |
| Sirloin steak.....             | Pound.....         | 22.6          | 38.7 | 39.4           | 39.4           | 39.4             | 40.5           | 41.5           | 25.6     | 34.8           | 35.0           | 35.2           |      |
| Round steak.....               | do.....            | 20.0          | 33.3 | 35.1           | 34.8           | 34.0             | 34.2           | 34.8           | 24.7     | 32.0           | 33.2           | 33.1           |      |
| Rib roast.....                 | do.....            | 19.3          | 29.5 | 30.5           | 30.2           | 28.1             | 28.9           | 29.5           | 19.0     | 26.4           | 27.5           | 27.4           |      |
| Chuck roast.....               | do.....            | 15.9          | 20.9 | 21.9           | 21.5           | 22.4             | 22.9           | 22.9           | 15.3     | 18.4           | 17.5           | 17.4           |      |
| Plate beef.....                | do.....            | 12.9          | 15.6 | 15.5           | 15.4           | 11.4             | 11.2           | 11.5           | 11.5     | 11.8           | 11.5           | 10.9           |      |
| Pork chops.....                | do.....            | 21.2          | 34.3 | 30.6           | 32.2           | 38.1             | 34.3           | 35.2           | 20.8     | 31.2           | 27.2           | 28.2           |      |
| Bacon, sliced.....             | do.....            | 27.0          | 37.8 | 33.9           | 33.5           | 35.0             | 34.5           | 34.7           | 28.0     | 39.1           | 37.7           | 38.5           |      |
| Ham, sliced.....               | do.....            | 26.0          | 45.8 | 38.5           | 39.2           | 49.6             | 46.0           | 47.2           | 28.3     | 46.9           | 42.5           | 42.6           |      |
| Lamb, leg of.....              | do.....            | 19.3          | 38.9 | 42.1           | 41.4           | 36.3             | 40.5           | 37.8           | 19.0     | 32.1           | 35.2           | 34.3           |      |
| Hens.....                      | do.....            | 19.4          | 33.1 | 36.2           | 34.7           | 38.9             | 40.0           | 38.8           | 17.4     | 30.2           | 30.5           | 29.9           |      |
| Salmon, canned, red.....       | do.....            | .....         | 33.1 | 30.7           | 30.5           | 28.3             | 28.7           | 28.8           | .....    | 32.1           | 30.9           | 31.2           |      |
| Milk, fresh.....               | Quart.....         | 10.0          | 13.0 | 14.0           | 14.0           | 13.0             | 12.0           | 12.5           | 8.0      | 12.0           | 13.0           | 13.0           |      |
| Milk, evaporated.....          | 15-16-oz. can..... | .....         | 12.4 | 13.5           | 13.6           | 10.9             | 12.0           | 12.0           | .....    | 9.9            | 11.4           | 11.4           |      |
| Butter.....                    | Pound.....         | 38.6          | 50.4 | 55.9           | 57.5           | 43.4             | 48.2           | 50.8           | 33.8     | 43.8           | 48.4           | 52.6           |      |
| Oleomargarine.....             | do.....            | .....         | 30.4 | 29.6           | 30.2           | 28.0             | 30.2           | 30.1           | .....    | 26.0           | 26.9           | 26.4           |      |
| Nut margarine.....             | do.....            | .....         | 28.0 | 28.4           | 28.8           | 25.8             | 27.8           | 27.5           | .....    | 24.8           | 24.5           | 24.4           |      |
| Cheese.....                    | do.....            | 21.8          | 31.9 | 35.9           | 36.2           | 32.5             | 36.2           | 36.6           | 19.2     | 28.7           | 34.2           | 34.0           |      |
| Lard.....                      | do.....            | 15.3          | 17.9 | 17.6           | 17.6           | 17.1             | 17.3           | 16.8           | 14.5     | 13.9           | 12.9           | 12.7           |      |
| Vegetable lard substitute..... | do.....            | .....         | 23.1 | 23.1           | 23.6           | 22.5             | 20.4           | 20.0           | .....    | 21.5           | 22.6           | 22.1           |      |
| Eggs, strictly fresh.....      | Dozen.....         | 26.6          | 34.9 | 34.7           | 37.4           | 37.4             | 36.2           | 38.7           | 23.0     | 29.0           | 30.9           | 34.6           |      |
| Bread.....                     | Pound.....         | 5.3           | 9.1  | 8.8            | 8.7            | 8.0              | 8.0            | 8.0            | 5.5      | 9.0            | 8.9            | 8.9            |      |
| Flour.....                     | do.....            | 3.3           | 5.3  | 4.9            | 4.7            | 5.1              | 4.7            | 4.5            | 3.0      | 4.6            | 4.1            | 3.9            |      |
| Corn meal.....                 | do.....            | 2.1           | 4.1  | 4.3            | 4.5            | 4.8              | 4.8            | 4.7            | 2.2      | 2.9            | 3.2            | 3.1            |      |
| Rollod oats.....               | do.....            | .....         | 9.8  | 9.1            | 9.0            | 7.2              | 8.4            | 8.4            | .....    | 8.1            | 8.1            | 8.1            |      |
| Corn flakes.....               | 8-oz. pkg.....     | .....         | 10.0 | 9.6            | 9.6            | 9.6              | 9.6            | 9.5            | .....    | 9.2            | 9.0            | 8.8            |      |
| Wheat cereal.....              | 28-oz. pkg.....    | .....         | 26.7 | 24.9           | 25.0           | 24.8             | 23.5           | 23.8           | .....    | 24.4           | 23.1           | 23.3           |      |
| Macaroni.....                  | Pound.....         | .....         | 21.3 | 21.1           | 20.8           | 18.9             | 18.7           | 18.7           | .....    | 20.6           | 19.5           | 19.4           |      |
| Rice.....                      | do.....            | 10.0          | 11.7 | 11.0           | 11.0           | 9.6              | 9.3            | 9.5            | 8.4      | 9.2            | 8.9            | 8.8            |      |
| Beans, navy.....               | do.....            | .....         | 10.5 | 12.4           | 12.2           | 11.7             | 11.0           | 11.0           | .....    | 11.4           | 11.0           | 10.2           |      |
| Potatoes.....                  | do.....            | 1.8           | 3.4  | 4.9            | 4.7            | 2.2              | 4.6            | 4.1            | 1.9      | 2.8            | 3.3            | 2.7            |      |
| Onions.....                    | do.....            | .....         | 6.0  | 8.0            | 7.9            | 5.9              | 7.8            | 6.5            | .....    | 5.5            | 6.6            | 6.1            |      |
| Cabbage.....                   | do.....            | .....         | 4.0  | 4.8            | 6.0            | 3.6              | 6.2            | 5.0            | .....    | 3.8            | 3.4            | 3.4            |      |
| Beans, baked.....              | No. 2 can.....     | .....         | 12.3 | 11.8           | 11.7           | 11.3             | 11.4           | 11.1           | .....    | 11.4           | 11.2           | 11.0           |      |
| Corn, canned.....              | do.....            | .....         | 15.4 | 15.5           | 15.5           | 15.7             | 16.3           | 16.3           | .....    | 14.5           | 14.9           | 15.2           |      |
| Peas, canned.....              | do.....            | .....         | 20.1 | 19.5           | 19.5           | 18.8             | 19.1           | 19.1           | .....    | 16.6           | 16.7           | 16.6           |      |
| Tomatoes, canned.....          | do.....            | .....         | 13.1 | 12.3           | 12.3           | 13.0             | 12.4           | 12.4           | .....    | 13.8           | 11.9           | 12.2           |      |
| Sugar, granulated.....         | Pound.....         | 5.1           | 8.3  | 10.7           | 9.8            | 7.8              | 10.2           | 9.1            | 5.4      | 8.1            | 10.4           | 9.5            |      |
| Tea.....                       | do.....            | 56.0          | 81.7 | 79.8           | 80.5           | 60.3             | 62.2           | 62.5           | 55.0     | 66.8           | 66.8           | 66.6           |      |
| Coffee.....                    | do.....            | 26.8          | 35.9 | 38.5           | 38.5           | 34.1             | 35.2           | 35.2           | 24.4     | 34.4           | 35.8           | 35.0           |      |
| Prunes.....                    | do.....            | .....         | 23.2 | 20.7           | 21.1           | 19.8             | 20.7           | 20.3           | .....    | 22.6           | 22.3           | 21.2           |      |
| Raisins.....                   | do.....            | .....         | 22.5 | 17.4           | 17.8           | 21.6             | 15.8           | 15.5           | .....    | 25.6           | 17.8           | 17.5           |      |
| Bananas.....                   | Dozen.....         | .....         | 35.8 | 39.6           | 39.2           | 39.7             | 44.8           | 44.4           | .....    | 28.4           | 33.8           | 33.0           |      |
| Oranges.....                   | do.....            | .....         | 68.8 | 55.6           | 50.9           | 67.9             | 50.8           | 52.2           | .....    | 52.9           | 48.5           | 46.7           |      |

<sup>1</sup> No 2½ can.

# RETAIL PRICES OF FOOD.

45

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, 1923. | Aug. 15, 1923. | Aug. 15—              |       | July 15, 1923. | Aug. 15, 1923. | Aug. 15—              |       | July 15, 1923. | Aug. 15, 1923. | Aug. 15, 1922. | July 15, 1923. | Aug. 15, 1923. | Aug. 15— |               | July 15, 1923. | Aug. 15, 1923. |  |
| 1913            | 1922 |                |                | 1913                  | 1922  |                |                | 1913                  | 1922  |                |                |                |                |                | 1913     | 1922          |                |                |  |
| Cts.            | Cts. | Cts.           | Cts.           | Cts.                  | Cts.  | Cts.           | Cts.           | Cts.                  | Cts.  | Cts.           | Cts.           | Cts.           | Cts.           | Cts.           | Cts.     | Cts.          | Cts.           | Cts.           |  |
| 26.6            | 35.2 | 37.1           | 36.6           | 23.1                  | 30.0  | 27.8           | 28.3           | 20.7                  | 30.7  | 28.9           | 29.4           | 30.0           | 31.9           | 30.8           | 26.8     | 47.6          | 49.2           | 50.5           |  |
| 22.9            | 29.4 | 31.3           | 31.5           | 20.0                  | 26.7  | 24.4           | 24.3           | 19.3                  | 27.3  | 26.5           | 26.8           | 26.0           | 27.1           | 26.3           | 23.3     | 38.5          | 39.1           | 40.1           |  |
| 20.6            | 27.8 | 28.5           | 28.3           | 20.0                  | 23.1  | 21.9           | 21.6           | 21.0                  | 27.9  | 28.0           | 28.0           | 24.2           | 25.0           | 24.2           | 23.8     | 35.6          | 35.7           | 35.9           |  |
| 17.0            | 20.5 | 21.1           | 21.3           | 15.4                  | 17.6  | 17.4           | 16.8           | 15.0                  | 17.8  | 17.0           | 17.3           | 16.0           | 16.9           | 15.7           | 18.0     | 25.7          | 25.7           | 26.1           |  |
| 10.6            | 10.0 | 10.4           | 10.5           | 12.3                  | 11.6  | 11.5           | 11.7           | 13.3                  | 13.3  | 12.8           | 13.0           | 13.8           | 13.9           | 13.2           | 12.5     | 11.0          | 10.1           | 10.5           |  |
| 19.7            | 33.0 | 28.1           | 29.7           | 23.0                  | 33.5  | 28.5           | 29.2           | 23.7                  | 39.3  | 35.1           | 35.2           | 30.0           | 27.1           | 28.3           | 22.3     | 38.8          | 34.8           | 35.9           |  |
| 27.2            | 40.6 | 38.1           | 39.1           | 32.0                  | 39.3  | 38.7           | 38.5           | 34.7                  | 53.9  | 50.5           | 50.3           | 36.4           | 34.8           | 35.0           | 28.0     | 44.7          | 42.9           | 43.1           |  |
| 28.3            | 48.6 | 43.3           | 44.0           | 30.8                  | 50.7  | 44.3           | 43.8           | 32.0                  | 57.0  | 51.8           | 51.8           | 42.5           | 35.5           | 36.0           | 31.7     | 59.2          | 53.6           | 54.4           |  |
| 17.9            | 33.6 | 33.3           | 31.5           | 18.5                  | 33.2  | 33.7           | 32.1           | 16.5                  | 34.4  | 33.9           | 34.8           | 37.0           | 36.3           | 33.3           | 20.0     | 44.6          | 46.1           | 45.3           |  |
| 19.4            | 28.1 | 27.3           | 27.9           | 25.0                  | 33.2  | 31.3           | 31.7           | 23.8                  | 38.0  | 39.2           | 38.0           | 32.3           | 30.1           | 30.5           | 23.3     | 44.2          | 42.9           | 39.4           |  |
| .....           | 35.2 | 34.8           | 34.4           | .....                 | 33.3  | 34.4           | 35.5           | .....                 | 28.6  | 27.3           | 26.8           | 34.8           | 35.0           | 34.9           | .....    | 36.7          | 35.4           | 35.1           |  |
| 6.9             | 10.0 | 11.0           | 12.0           | 8.7                   | 9.0   | 10.0           | 10.0           | 10.0                  | 13.0  | 13.0           | 13.0           | 18.0           | 17.8           | 17.5           | 8.6      | 12.0          | 13.0           | 13.5           |  |
| .....           | 11.1 | 12.3           | 12.5           | .....                 | 10.5  | 11.2           | 11.0           | .....                 | 10.1  | 11.0           | 11.0           | 10.1           | 11.7           | 11.6           | .....    | 11.3          | 12.3           | 12.3           |  |
| 32.8            | 35.3 | 43.4           | 46.5           | 40.0                  | 44.5  | 48.8           | 52.1           | 40.7                  | 50.6  | 54.8           | 56.2           | 43.9           | 52.1           | 53.2           | 35.2     | 43.5          | 50.0           | 50.6           |  |
| .....           | 27.8 | 27.4           | 27.7           | .....                 | ..... | .....          | .....          | .....                 | 27.0  | 28.0           | 28.0           | 30.5           | 32.9           | 33.1           | .....    | 26.2          | 29.3           | 29.3           |  |
| .....           | 26.9 | 26.5           | 27.0           | .....                 | 28.4  | 27.1           | 27.9           | .....                 | 27.6  | 28.3           | 28.3           | 27.6           | 30.1           | 29.9           | .....    | 21.0          | 22.0           | 22.0           |  |
| 21.0            | 31.1 | 35.2           | 35.8           | 23.3                  | 27.7  | 31.1           | 31.3           | 19.0                  | 34.8  | 37.6           | 38.0           | 29.1           | 34.5           | 34.4           | 18.0     | 30.3          | 34.8           | 35.1           |  |
| 15.0            | 17.5 | 17.5           | 17.1           | 19.3                  | 18.9  | 19.1           | 18.8           | 18.0                  | 19.1  | 19.4           | 19.1           | 18.2           | 17.4           | 17.1           | 16.2     | 17.5          | 17.5           | 17.5           |  |
| .....           | 24.5 | 24.2           | 24.1           | .....                 | 26.1  | 26.3           | 26.8           | .....                 | 25.0  | 25.1           | 25.1           | 20.6           | 18.9           | 17.8           | .....    | 23.1          | 22.6           | 22.6           |  |
| 24.3            | 29.5 | 32.0           | 32.3           | 32.9                  | 32.7  | 31.1           | 35.3           | 38.2                  | 33.6  | 35.2           | 45.2           | 35.8           | 39.7           | 43.3           | 30.1     | 37.4          | 38.2           | 40.4           |  |
| 5.9             | 9.3  | 9.4            | 9.4            | 5.9                   | 9.5   | 9.6            | 9.8            | 5.9                   | 8.5   | 9.1            | 9.2            | 8.3            | 8.7            | 8.5            | 5.6      | 9.1           | 8.7            | 8.7            |  |
| 3.0             | 5.3  | 4.4            | 4.2            | 2.6                   | 3.2   | 3.3            | 3.2            | 3.4                   | 5.2   | 5.0            | 4.9            | 5.6            | 5.4            | 5.2            | 3.5      | 5.7           | 5.2            | 5.1            |  |
| 2.4             | 3.5  | 3.5            | 3.5            | 3.3                   | 3.6   | 3.7            | 3.7            | 3.4                   | 4.5   | 4.6            | 4.6            | 2.7            | 3.1            | 3.2            | .....    | 6.2           | 5.8            | 5.8            |  |
| .....           | 9.7  | 9.8            | 9.9            | .....                 | 9.5   | 9.5            | 9.6            | .....                 | 9.6   | 9.4            | 9.3            | 8.4            | 8.6            | 8.6            | .....    | 9.5           | 9.4            | 9.6            |  |
| .....           | 10.0 | 10.0           | 10.0           | .....                 | 12.3  | 11.2           | 11.2           | .....                 | 10.9  | 10.5           | 10.5           | 8.9            | 9.2            | 9.2            | .....    | 9.9           | 10.1           | 10.1           |  |
| .....           | 26.2 | 25.0           | 25.0           | .....                 | 26.4  | 25.3           | 24.9           | .....                 | 25.0  | 23.7           | 23.5           | 25.5           | 23.5           | 23.2           | .....    | 26.9          | 25.7           | 25.7           |  |
| .....           | 18.5 | 18.6           | 18.6           | .....                 | 20.7  | 19.4           | 19.8           | .....                 | 13.8  | 14.3           | 14.3           | 18.3           | 17.1           | 17.3           | .....    | 22.8          | 22.9           | 22.9           |  |
| 10.0            | 9.5  | 9.3            | 9.1            | 8.2                   | 8.9   | 8.7            | 8.7            | 8.5                   | 9.4   | 8.9            | 9.0            | 8.3            | 7.9            | 7.9            | 8.4      | 9.7           | 9.6            | 9.5            |  |
| .....           | 11.2 | 11.8           | 11.8           | .....                 | 9.9   | 10.8           | 10.9           | .....                 | 9.4   | 9.8            | 9.7            | 10.7           | 12.3           | 12.0           | .....    | 11.4          | 12.6           | 12.5           |  |
| 1.0             | 1.4  | 2.3            | 1.7            | 1.2                   | 1.4   | 3.1            | 2.4            | 1.7                   | 2.7   | 3.8            | 3.7            | 2.9            | 4.7            | 4.0            | 2.0      | 2.2           | 4.4            | 4.2            |  |
| .....           | 5.9  | 7.4            | 6.7            | .....                 | 5.5   | 6.3            | 5.3            | .....                 | 3.1   | 3.9            | 3.9            | 7.6            | 7.7            | 6.9            | .....    | 6.2           | 7.7            | 7.3            |  |
| .....           | 1.6  | 4.8            | 2.8            | .....                 | 5.3   | 6.6            | 3.9            | .....                 | ..... | 14.7           | 14.6           | 4.5            | 5.0            | 4.8            | .....    | 3.0           | 6.1            | 5.4            |  |
| .....           | 14.6 | 14.2           | 14.2           | .....                 | 16.8  | 15.5           | 15.4           | .....                 | 14.9  | 16.6           | 16.6           | 12.9           | 12.2           | 12.3           | .....    | 12.9          | 12.1           | 12.1           |  |
| .....           | 14.9 | 14.5           | 14.3           | .....                 | 14.9  | 14.0           | 14.1           | .....                 | 16.4  | 17.4           | 17.3           | 14.5           | 14.6           | 14.6           | .....    | 16.7          | 16.5           | 16.5           |  |
| .....           | 16.3 | 16.3           | 16.3           | .....                 | 16.1  | 15.6           | 15.6           | .....                 | 17.7  | 13.9           | 13.8           | 17.0           | 17.5           | 17.6           | .....    | 17.2          | 18.4           | 18.5           |  |
| .....           | 15.3 | 13.9           | 13.8           | .....                 | 14.4  | 12.9           | 12.9           | .....                 | 14.3  | 10.3           | 19.5           | 11.1           | 11.1           | 11.0           | .....    | 14.0          | 13.0           | 13.0           |  |
| 5.6             | 8.4  | 11.1           | 10.1           | 6.1                   | 9.0   | 11.1           | 10.5           | 5.5                   | 7.9   | 57.3           | 57.3           | 7.7            | 10.3           | 9.3            | 5.7      | 8.1           | 10.7           | 9.6            |  |
| 45.0            | 64.2 | 67.1           | 66.7           | 65.7                  | 78.8  | 79.6           | 81.4           | 50.0                  | 57.5  | 36.3           | 36.5           | 67.4           | 66.2           | 66.9           | 52.5     | 59.0          | 60.7           | 60.7           |  |
| 30.0            | 40.0 | 40.4           | 40.2           | 35.8                  | 44.1  | 44.2           | 44.1           | 32.0                  | 35.6  | 18.1           | 17.3           | 31.9           | 35.1           | 34.9           | 31.3     | 37.3          | 39.7           | 39.7           |  |
| .....           | 22.8 | 21.1           | 20.7           | .....                 | 20.1  | 17.9           | 18.4           | .....                 | 20.0  | 16.2           | 15.6           | 19.8           | 18.9           | 18.1           | .....    | 18.8          | 17.8           | 17.4           |  |
| .....           | 25.8 | 18.7           | 18.7           | .....                 | 23.4  | 17.8           | 17.8           | .....                 | 21.5  | 32.9           | 35.0           | 21.2           | 16.5           | 16.2           | .....    | 22.5          | 17.1           | 17.1           |  |
| .....           | 10.5 | 12.6           | 13.1           | .....                 | 15.8  | 15.3           | 15.8           | .....                 | 35.6  | 49.5           | 50.5           | 29.5           | 38.6           | 39.5           | .....    | 33.4          | 33.2           | 32.9           |  |
| .....           | 69.2 | 59.1           | 56.7           | .....                 | 52.6  | 45.3           | 43.8           | .....                 | 67.2  | .....          | .....          | 92.2           | 61.8           | 56.3           | .....    | 71.2          | 53.6           | 52.1           |  |

\* Per pound.



TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD IN 51 CITIES ON SPECIFIED DATES—Concluded.

| Article.                       | Unit.              | Seattle, Wash.    |                   |                   |                   | Springfield, Ill. |                   |                   |           | Washington, D. C. |           |                |                |
|--------------------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------|-------------------|-----------|----------------|----------------|
|                                |                    | Aug. 15—          |                   | July 15, 1923.    | Aug. 15, 1923.    | Aug. 15, 1922.    | July 15, 1923.    | Aug. 15, 1923.    |           | Aug. 15—          |           | July 15, 1923. | Aug. 15, 1923. |
|                                |                    | 1913              | 1922              |                   |                   |                   |                   |                   |           | 1913              | 1922      |                |                |
| Sirloin steak.....             | Pound.....         | Cts. 24.4         | Cts. 31.5         | Cts. 31.0         | Cts. 31.5         | Cts. 33.5         | Cts. 36.2         | Cts. 34.8         | Cts. 27.8 | Cts. 43.9         | Cts. 46.7 | Cts. 46.1      | Cts. 46.1      |
| Round steak.....               | do.....            | 21.5              | 27.9              | 26.7              | 26.5              | 33.1              | 35.8              | 34.3              | 24.5      | 37.9              | 40.0      | 40.2           | 40.2           |
| Rib roast.....                 | do.....            | 20.0              | 24.5              | 24.6              | 24.3              | 22.5              | 23.9              | 23.8              | 21.6      | 34.7              | 35.4      | 34.6           | 34.6           |
| Chuck roast.....               | do.....            | 16.2              | 16.4              | 16.2              | 15.8              | 19.7              | 20.5              | 19.7              | 17.3      | 23.0              | 23.9      | 23.4           | 23.4           |
| Plate beef.....                | do.....            | 12.7              | 12.5              | 12.6              | 12.4              | 12.6              | 12.6              | 12.5              | 12.1      | 13.0              | 12.5      | 12.3           | 12.3           |
| Pork chops.....                | do.....            | 24.2              | 37.8              | 32.8              | 33.7              | 31.1              | 26.5              | 28.2              | 23.0      | 40.0              | 36.2      | 36.5           | 36.5           |
| Bacon, sliced.....             | do.....            | 34.2              | 50.6              | 48.8              | 49.0              | 39.0              | 38.7              | 39.3              | 28.4      | 38.7              | 37.8      | 37.5           | 37.5           |
| Ham, sliced.....               | do.....            | 31.7              | 54.2              | 50.4              | 51.1              | 50.4              | 45.0              | 46.4              | 31.0      | 59.6              | 55.5      | 55.0           | 55.0           |
| Lamb, leg of.....              | do.....            | 19.4              | 31.7              | 32.5              | 32.0              | 36.9              | 39.4              | 38.1              | 19.4      | 39.9              | 42.4      | 41.8           | 41.8           |
| Hens.....                      | do.....            | 23.8              | 31.0              | 30.8              | 31.1              | 33.1              | 31.3              | 29.9              | 21.9      | 38.6              | 42.7      | 42.0           | 42.0           |
| Salmon, canned, red.....       | do.....            | .....             | 30.9              | 30.3              | 30.5              | 32.9              | 33.2              | 32.9              | .....     | 29.1              | 28.5      | 28.6           | 28.6           |
| Milk, fresh.....               | Quart.....         | 8.5               | 12.5              | 12.0              | 12.0              | 11.1              | 12.5              | 12.5              | 8.0       | 13.0              | 14.0      | 14.0           | 14.0           |
| Milk, evaporated.....          | 15-16-oz. can..... | .....             | 10.3              | 10.9              | 10.9              | 11.5              | 12.8              | 12.8              | .....     | 10.8              | 12.4      | 12.3           | 12.3           |
| Butter.....                    | Pound.....         | 39.0              | 50.7              | 50.1              | 52.4              | 43.1              | 48.3              | 51.0              | 36.6      | 47.5              | 51.8      | 54.3           | 54.3           |
| Oleomargarine.....             | do.....            | .....             | 27.5              | 30.0              | 28.5              | 28.0              | 28.9              | 28.7              | .....     | 26.2              | 28.5      | 28.1           | 28.1           |
| Nut margarine.....             | do.....            | .....             | 28.4              | 29.0              | 29.0              | 26.6              | 27.5              | 27.8              | .....     | 26.2              | 26.8      | 27.5           | 27.5           |
| Cheese.....                    | do.....            | 21.7              | 32.5              | 36.5              | 36.4              | 32.4              | 37.3              | 37.1              | 23.8      | 33.9              | 38.6      | 37.8           | 37.8           |
| Lard.....                      | do.....            | 17.4              | 19.1              | 18.9              | 19.0              | 17.0              | 16.8              | 16.6              | 15.3      | 17.1              | 17.7      | 17.0           | 17.0           |
| Vegetable lard substitute..... | do.....            | .....             | 25.6              | 24.9              | 24.8              | 22.9              | 25.9              | 25.9              | .....     | 22.2              | 23.6      | 23.3           | 23.3           |
| Eggs, strictly fresh.....      | Dozen.....         | 39.0              | 33.5              | 32.9              | 41.1              | 28.0              | 29.2              | 30.7              | 30.0      | 37.4              | 38.0      | 41.1           | 41.1           |
| Bread.....                     | Pound.....         | 5.5               | 9.9               | 9.9               | 9.9               | 9.7               | 9.2               | 9.2               | 5.7       | 8.7               | 9.0       | 9.0            | 9.0            |
| Flour.....                     | do.....            | 2.9               | 4.7               | 4.4               | 4.4               | 5.3               | 4.9               | 4.7               | 3.8       | 5.6               | 5.0       | 4.8            | 4.8            |
| Corn meal.....                 | do.....            | 3.2               | 3.8               | 4.1               | 4.1               | 4.2               | 4.4               | 4.3               | 2.5       | 3.6               | 4.0       | 3.9            | 3.9            |
| Rollod oats.....               | do.....            | .....             | 8.3               | 8.2               | 8.2               | 10.0              | 10.5              | 10.5              | .....     | 9.5               | 9.3       | 9.2            | 9.2            |
| Corn flakes.....               | 8-oz. pkg.....     | .....             | 11.5              | 11.7              | 11.7              | 9.5               | 10.1              | 10.5              | .....     | 9.4               | 9.4       | 9.5            | 9.5            |
| Wheat cereal.....              | 28-oz. pkg.....    | .....             | 27.0              | 24.7              | 24.7              | 27.2              | 25.1              | 25.2              | .....     | 25.3              | 24.3      | 24.1           | 24.1           |
| Macaroni.....                  | Pound.....         | .....             | 19.0              | 18.2              | 18.4              | 20.5              | 19.7              | 19.7              | .....     | 21.6              | 21.2      | 20.7           | 20.7           |
| Rice.....                      | do.....            | 7.7               | 11.1              | 11.2              | 11.1              | 10.6              | 10.0              | 10.1              | 9.8       | 10.3              | 10.1      | 10.1           | 10.1           |
| Beans, navy.....               | do.....            | .....             | 10.3              | 11.0              | 10.8              | 13.0              | 11.9              | 10.6              | .....     | 12.1              | 11.7      | 11.4           | 11.4           |
| Potatoes.....                  | do.....            | 1.6               | 3.0               | 3.1               | 2.7               | 2.6               | 3.8               | 3.0               | 2.0       | 2.6               | 5.4       | 4.8            | 4.8            |
| Onions.....                    | do.....            | .....             | 4.2               | 5.4               | 4.7               | 8.3               | 9.6               | 8.3               | .....     | 7.6               | 9.1       | 7.9            | 7.9            |
| Cabbage.....                   | do.....            | .....             | 4.2               | 5.3               | 4.9               | 4.8               | 4.6               | 4.9               | .....     | 3.1               | 6.3       | 5.7            | 5.7            |
| Beans, baked.....              | No. 2 can.....     | .....             | 15.8              | 15.2              | 15.2              | 14.1              | 13.3              | 13.4              | .....     | 11.8              | 11.9      | 11.5           | 11.5           |
| Corn, canned.....              | do.....            | .....             | 17.6              | 16.7              | 16.7              | 14.6              | 14.7              | 14.7              | .....     | 14.0              | 15.3      | 15.1           | 15.1           |
| Peas, canned.....              | do.....            | .....             | 18.9              | 18.5              | 18.4              | 17.5              | 17.9              | 17.7              | .....     | 16.9              | 15.5      | 15.5           | 15.5           |
| Tomatoes, canned.....          | do.....            | .....             | <sup>1</sup> 15.5 | <sup>1</sup> 15.9 | <sup>1</sup> 15.6 | 15.5              | 14.9              | 14.9              | .....     | 12.4              | 11.8      | 12.1           | 12.1           |
| Sugar, granulated.....         | Pound.....         | 6.3               | 8.4               | 10.5              | 10.0              | 9.1               | 11.6              | 10.5              | 5.2       | 7.8               | 10.0      | 9.4            | 9.4            |
| Tea.....                       | do.....            | 50.0              | 65.6              | 67.6              | 68.2              | 70.4              | 72.5              | 75.4              | 57.5      | 72.4              | 77.9      | 76.7           | 76.7           |
| Coffee.....                    | do.....            | 28.0              | 39.3              | 38.6              | 38.6              | 35.6              | 38.1              | 38.1              | 28.8      | 32.9              | 35.3      | 35.0           | 35.0           |
| Prunes.....                    | do.....            | .....             | 20.9              | 17.0              | 16.1              | 21.4              | 20.1              | 20.7              | .....     | 21.6              | 21.4      | 21.0           | 21.0           |
| Raisins.....                   | do.....            | .....             | 24.0              | 17.9              | 17.1              | 25.7              | 20.4              | 20.2              | .....     | 24.1              | 16.6      | 17.0           | 17.0           |
| Bananas.....                   | Dozen.....         | <sup>2</sup> 14.1 | <sup>2</sup> 15.7 | <sup>2</sup> 15.8 | <sup>2</sup> 15.8 | <sup>2</sup> 8.8  | <sup>2</sup> 11.8 | <sup>2</sup> 11.8 | .....     | 36.3              | 39.8      | 38.9           | 38.9           |
| Oranges.....                   | do.....            | .....             | 59.9              | 47.9              | 46.9              | 68.1              | 49.9              | 49.9              | .....     | 72.0              | 60.5      | 54.6           | 54.6           |

<sup>1</sup> No. 2½ can.<sup>2</sup> Per pound.

## Comparison of Retail Food Costs in 51 Cities.

TABLE 6 shows for 39 cities the percentage of increase or decrease in the retail cost of food<sup>7</sup> in August, 1923, compared with the average cost in the year 1913, in August, 1922, and in July, 1923. For 12 other cities comparisons are given for the one-year and the one-month periods. These cities have been scheduled by the bureau at different dates since 1913. 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>8</sup>

Effort has been made by the bureau each month to have perfect reporting cities. For the month of August 99 per cent of all the firms reporting in the 51 cities sent in a report promptly. The following were perfect reporting cities; that is, every merchant in the following named 38 cities who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Atlanta, Baltimore, Boston, Bridgeport, Chicago, Cincinnati, Columbus, Dallas, Denver, Detroit, Fall River, Houston, Indianapolis, Jacksonville, Kansas City, Little Rock, Louisville, Manchester, Minneapolis, Newark, New Haven, Norfolk, Omaha, Peoria, Philadelphia, Portland, Me., Portland, Oreg., Pittsburgh, Providence, Richmond, Rochester, St. Paul, San Francisco, Savannah, Scranton, Seattle, Springfield, Ill., and Washington, D. C.

The following summary shows the promptness with which the merchants responded in August:

## RETAIL PRICE REPORTS RECEIVED DURING AUGUST, 1923.

| Item.  | United States. | Geographical division. |                 |                |                |          |
|--|----------------|------------------------|-----------------|----------------|----------------|----------|
|  |                | North Atlantic.        | South Atlantic. | North Central. | South Central. | Western. |
| Percentage of reports received.....  | 99             | 99                     | 99              | 99             | 98             | 98       |
| Number of cities in each section from which every report was received..... | 38             | 12                     | 7               | 11             | 4              | 4        |

<sup>7</sup> For list of articles, see note 2, p. 26.

<sup>8</sup> The consumption figure used from January, 1913, to December, 1920, for each article in each city is given in the MONTHLY LABOR REVIEW for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month beginning with January, 1921, are given in the MONTHLY LABOR REVIEW for March, 1921, p. 26.

TABLE 6.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN AUGUST, 1923, COMPARED WITH THE COST IN JULY, 1923, AUGUST, 1922, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES.

| City.             | Percentage increase<br>August, 1923, com-<br>pared with— |                  | Percentage<br>decrease<br>August,<br>1923,<br>compared<br>with July,<br>1923. | City.                | Percentage increase<br>August, 1923, com-<br>pared with— |                  | Percentage<br>decrease<br>August,<br>1923,<br>compared<br>with July,<br>1923. |
|-------------------|--|------------------|---|----------------------|--|------------------|---|
|                   | 1913   | August,<br>1922. |   |                      | 1913   | August,<br>1922. |   |
| Atlanta.....      | 45   | 3                | 1 1   | Milwaukee.....       | 49   | 7                | 3   |
| Baltimore.....    | 52   | 6                | 0.3   | Minneapolis....      | 43   | 5                | 1   |
| Birmingham....    | 48   | 4                | 1   | Mobile.....          | 2  | 2                | 0.4   |
| Boston.....       | 55   | 8                | 1 1   | Newark.....          | 46   | 7                | 1 1   |
| Bridgeport.....   | .....  | 8                | 1   | New Haven....        | 48   | 7                | 1   |
| Buffalo.....      | 52   | 6                | 1 0.4   | New Orleans....      | 41   | 1                | 0.2   |
| Butte.....        | 4  | 4                | 1 0.4   | New York.....        | 52   | 6                | 1   |
| Charleston, S. C. | 49   | 3                | 1 2   | Norfolk.....         | 5  | 5                | 1 2   |
| Chicago.....      | 54   | 8                | 2   | Omaha.....           | 42   | 4                | 0.3   |
| Cincinnati.....   | 42   | 3                | 2   | Peoria.....          | .....  | 4                | 2   |
| Cleveland.....    | 47   | 11               | 1   | Philadelphia....     | 51   | 11               | 0.4   |
| Columbus.....     | .....  | 5                | 4   | Pittsburgh.....      | 49   | 10               | 1   |
| Dallas.....       | 41   | 2 1              | 0.1   | Portland, Me....     | .....  | 6                | 1 1   |
| Denver.....       | 35   | 7                | 2   | Portland, Oreg.      | 32   | 2 1              | 0.1   |
| Detroit.....      | 56   | 9                | 1   | Providence.....      | 54   | 7                | 0.1   |
| Fall River.....   | 49   | 6                | 1   | Richmond.....        | 56   | 3                | 0   |
| Houston.....      | .....  | 2                | 0.1   | Rochester.....       | .....  | 6                | 0.3   |
| Indianapolis....  | 45   | 10               | 1   | St. Louis.....       | 42   | 2                | 1   |
| Jacksonville....  | 39   | 3                | 0.2   | St. Paul.....        | .....  | 6                | 1   |
| Kansas City....   | 38   | 4                | 1   | Salt Lake City..     | 27   | 5                | 0.4   |
| Little Rock.....  | 38   | 2                | 1   | San Francisco..      | 43   | 6                | 1 2   |
| Los Angeles.....  | 38   | 5                | 1 1   | Savannah.....        | .....  | 4                | 2   |
| Louisville.....   | 34   | 5                | 1 0.4   | Scranton.....        | 52   | 7                | 1 0.1   |
| Manchester.....   | 52   | 10               | 1   | Seattle.....         | 38   | 0.4              | 1 1   |
| Memphis.....      | 38   | 3                | 0.4   | Springfield, Ill.    | .....  | 3                | 2   |
|                   |  |                  |   | Washington,<br>D. C. | 56   | 6                | 1   |

<sup>1</sup> Increase.<sup>2</sup> Decrease.Retail Prices of Coal in the United States.<sup>a</sup>

THE following table shows the average retail prices of coal on July 15, 1922, and on July 15 and August 15, 1923, for the United States and for each of the cities included in the total for the United States. Prices for coal are secured from the cities from which monthly retail prices of food are received.

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 used. The coal dealers in each city are asked to quote prices on the kinds of bituminous coal usually sold for household use.

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.

<sup>a</sup> Prices of coal were formerly secured semiannually and published in the March and September issues of the MONTHLY LABOR REVIEW. Since June, 1920, these prices have been secured and published monthly.

# RETAIL PRICES OF COAL.

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AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JULY 15, 1922, AND JULY 15 AND AUGUST 15, 1923.

| City, and kind of coal.     | 1922                | 1923                |                     |
|-----------------------------|---------------------|---------------------|---------------------|
|                             | July 15.            | July 15.            | Aug. 15.            |
| United States:              |                     |                     |                     |
| Pennsylvania anthracite—    |                     |                     |                     |
| Stove.....                  | \$14.867            | \$15.102            | \$15.194            |
| Chestnut.....               | 14.921              | 15.048              | 15.144              |
| Bituminous.....             | 9.490               | 10.033              | 9.942               |
| Atlanta, Ga.:               |                     |                     |                     |
| Bituminous.....             | 8.115               | 8.327               | 8.288               |
| Baltimore, Md.:             |                     |                     |                     |
| Pennsylvania anthracite—    |                     |                     |                     |
| Stove.....                  | <sup>1</sup> 15.000 | <sup>1</sup> 15.750 | <sup>1</sup> 15.917 |
| Chestnut.....               | <sup>1</sup> 14.750 | <sup>1</sup> 15.750 | <sup>1</sup> 15.750 |
| Bituminous.....             | 8.250               | 8.300               | 8.100               |
| Birmingham, Ala.:           |                     |                     |                     |
| Bituminous.....             | 6.215               | 7.694               | 7.922               |
| Boston, Mass.:              |                     |                     |                     |
| Pennsylvania anthracite—    |                     |                     |                     |
| Stove.....                  | 15.000              | 15.000              | 15.500              |
| Chestnut.....               | 15.000              | 15.000              | 15.500              |
| Bridgeport, Conn.:          |                     |                     |                     |
| Pennsylvania anthracite—    |                     |                     |                     |
| Stove.....                  | 14.000              | 16.000              | 16.000              |
| Chestnut.....               | 14.000              | 16.000              | 16.000              |
| Buffalo, N. Y.:             |                     |                     |                     |
| Pennsylvania anthracite—    |                     |                     |                     |
| Stove.....                  | 12.813              | 13.175              | 13.175              |
| Chestnut.....               | 12.813              | 13.175              | 13.175              |
| Butte, Mont.:               |                     |                     |                     |
| Bituminous.....             | 11.528              | 11.132              | 11.184              |
| Charleston, S. C.:          |                     |                     |                     |
| Pennsylvania anthracite—    |                     |                     |                     |
| Stove.....                  | <sup>1</sup> 17.000 | <sup>1</sup> 17.000 | <sup>1</sup> 17.000 |
| Chestnut.....               | <sup>1</sup> 17.100 | <sup>1</sup> 17.100 | <sup>1</sup> 17.100 |
| Bituminous.....             | 12.000              | 12.000              | 12.000              |
| Chicago, Ill.:              |                     |                     |                     |
| Pennsylvania anthracite—    |                     |                     |                     |
| Stove.....                  | 15.763              | 15.938              | 16.188              |
| Chestnut.....               | 15.630              | 15.788              | 16.000              |
| Bituminous.....             | 8.917               | 8.813               | 8.797               |
| Cincinnati, Ohio:           |                     |                     |                     |
| Bituminous.....             | 7.154               | 8.615               | 8.577               |
| Cleveland, Ohio:            |                     |                     |                     |
| Pennsylvania anthracite—    |                     |                     |                     |
| Stove.....                  | 14.375              | 14.667              | 15.083              |
| Chestnut.....               | 14.438              | 14.667              | 15.083              |
| Bituminous.....             | 8.625               | 9.706               | 9.603               |
| Columbus, Ohio:             |                     |                     |                     |
| Bituminous.....             | 7.191               | 7.763               | 7.487               |
| Dallas, Tex.:               |                     |                     |                     |
| Arkansas anthracite—        |                     |                     |                     |
| Egg.....                    | 16.000              | 15.917              | 16.667              |
| Bituminous.....             | 14.423              | 13.792              | 13.958              |
| Denver, Colo.:              |                     |                     |                     |
| Colorado anthracite—        |                     |                     |                     |
| Furnace, 1 and 2 mixed..... | 15.500              | 16.500              | 16.625              |
| Stove, 3 and 5 mixed.....   | 15.500              | 16.500              | 16.625              |
| Bituminous.....             | 10.038              | 10.270              | 10.378              |
| Detroit, Mich.:             |                     |                     |                     |
| Pennsylvania anthracite—    |                     |                     |                     |
| Stove.....                  | 14.563              | 16.000              | 16.250              |
| Chestnut.....               | 14.563              | 16.000              | 16.188              |
| Bituminous.....             | 8.969               | 10.429              | 10.250              |
| Fall River, Mass.:          |                     |                     |                     |
| Pennsylvania anthracite—    |                     |                     |                     |
| Stove.....                  | 15.250              | 15.500              | 15.500              |
| Chestnut.....               | 15.000              | 15.417              | 15.417              |
| Houston, Tex.:              |                     |                     |                     |
| Bituminous.....             | 10.667              | 11.667              | 11.833              |
| Indianapolis, Ind.:         |                     |                     |                     |
| Pennsylvania anthracite—    |                     |                     |                     |
| Stove.....                  | 15.625              | 16.000              | 16.000              |
| Chestnut.....               | 15.667              | 15.875              | 16.000              |
| Bituminous.....             | 7.432               | 8.135               | 8.213               |
| Jacksonville, Fla.:         |                     |                     |                     |
| Bituminous.....             | 13.000              | 13.500              | 13.000              |

<sup>1</sup> Per ton of 2,240 pounds.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JULY 15, 1922, AND JULY 15 AND AUGUST 15, 1923—Continued.

| City, and kind of coal.  | 1922                | 1923                |                     |
|--------------------------|---------------------|---------------------|---------------------|
|                          | July 15.            | July 15.            | Aug. 15.            |
| Kansas City, Mo.:        |                     |                     |                     |
| Arkansas anthracite—     |                     |                     |                     |
| Furnace.....             | \$15.286            | \$15.286            | \$15.643            |
| Stove No. 4.....         | 16.125              | 16.188              | 16.875              |
| Bituminous.....          | 8.984               | 8.706               | 8.181               |
| Little Rock, Ark.:       |                     |                     |                     |
| Arkansas anthracite—     |                     |                     |                     |
| Egg.....                 | 15.000              | 15.000              | 14.000              |
| Bituminous.....          | 11.688              | 10.625              | 10.625              |
| Los Angeles, Calif.:     |                     |                     |                     |
| Bituminous.....          | 14.000              | 15.500              | 15.500              |
| Louisville, Ky.:         |                     |                     |                     |
| Bituminous.....          | 7.389               | 8.573               | 8.531               |
| Manchester, N. H.:       |                     |                     |                     |
| Pennsylvania anthracite— |                     |                     |                     |
| Stove.....               | 16.000              | 17.000              | 17.167              |
| Chestnut.....            | 16.000              | 17.000              | 17.167              |
| Memphis, Tenn.:          |                     |                     |                     |
| Bituminous.....          | 7.786               | 7.446               | 7.429               |
| Milwaukee, Wis.:         |                     |                     |                     |
| Pennsylvania anthracite— |                     |                     |                     |
| Stove.....               | 16.010              | 16.020              | 16.000              |
| Chestnut.....            | 15.950              | 16.020              | 16.000              |
| Bituminous.....          | 9.750               | 10.519              | 10.083              |
| Minneapolis, Minn.:      |                     |                     |                     |
| Pennsylvania anthracite— |                     |                     |                     |
| Stove.....               | 17.510              | 17.500              | 17.500              |
| Chestnut.....            | 17.500              | 17.380              | 17.380              |
| Bituminous.....          | 11.938              | 12.325              | 12.073              |
| Mobile, Ala.:            |                     |                     |                     |
| Bituminous.....          | 8.875               | 10.143              | 9.857               |
| Newark, N. J.:           |                     |                     |                     |
| Pennsylvania anthracite— |                     |                     |                     |
| Stove.....               | 12.750              | 12.750              | 12.750              |
| Chestnut.....            | 12.750              | 12.750              | 12.750              |
| New Haven, Conn.:        |                     |                     |                     |
| Pennsylvania anthracite— |                     |                     |                     |
| Stove.....               | 14.000              | 15.000              | 15.750              |
| Chestnut.....            | 14.000              | 15.000              | 15.750              |
| New Orleans, La.:        |                     |                     |                     |
| Pennsylvania anthracite— |                     |                     |                     |
| Stove.....               | 18.000              | 21.250              | 20.250              |
| Chestnut.....            | 18.333              | 21.250              | 20.250              |
| Bituminous.....          | 8.393               | 9.531               | 9.625               |
| New York, N. Y.:         |                     |                     |                     |
| Pennsylvania anthracite— |                     |                     |                     |
| Stove.....               | 13.135              | 14.083              | 14.083              |
| Chestnut.....            | 13.135              | 13.833              | 14.000              |
| Norfolk, Va.:            |                     |                     |                     |
| Pennsylvania anthracite— |                     |                     |                     |
| Stove.....               | 14.000              | 15.125              | 15.000              |
| Chestnut.....            | 14.000              | 15.125              | 15.000              |
| Bituminous.....          | 9.952               | 11.429              | 11.357              |
| Omaha, Nebr.:            |                     |                     |                     |
| Bituminous.....          | 11.905              | 10.869              | 10.845              |
| Peoria, Ill.:            |                     |                     |                     |
| Bituminous.....          | 6.696               | 6.519               | 6.462               |
| Philadelphia, Pa.:       |                     |                     |                     |
| Pennsylvania anthracite— |                     |                     |                     |
| Stove.....               | <sup>1</sup> 14.094 | <sup>1</sup> 15.429 | <sup>1</sup> 15.429 |
| Chestnut.....            | <sup>1</sup> 14.094 | <sup>1</sup> 15.000 | <sup>1</sup> 15.000 |
| Pittsburgh, Pa.:         |                     |                     |                     |
| Pennsylvania anthracite— |                     |                     |                     |
| Stove.....               | <sup>1</sup> 15.750 | <sup>1</sup> 16.750 | <sup>1</sup> 16.750 |
| Chestnut.....            | <sup>1</sup> 15.583 | <sup>1</sup> 16.750 | <sup>1</sup> 16.750 |
| Bituminous.....          | 6.656               | 7.464               | 7.536               |
| Portland, Me.:           |                     |                     |                     |
| Pennsylvania anthracite— |                     |                     |                     |
| Stove.....               | 15.843              | 15.840              | 15.843              |
| Chestnut.....            | 15.843              | 15.840              | 15.843              |
| Portland, Oreg.:         |                     |                     |                     |
| Bituminous.....          | 12.717              | 13.565              | 13.587              |

<sup>1</sup> Per ton of 2,240 pounds.



AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JULY 15, 1922, AND JULY 15 AND AUGUST 15, 1923—Concluded.

| City, and kind of coal.     | 1922                  | 1923                  |                       |
|-----------------------------|-----------------------|-----------------------|-----------------------|
|                             | July 15.              | July 15.              | Aug. 15.              |
| Providence, R. I.:          |                       |                       |                       |
| Pennsylvania anthracite—    |                       |                       |                       |
| Stove.....                  | <sup>2</sup> \$15.000 | <sup>2</sup> \$15.000 | <sup>2</sup> \$15.300 |
| Chestnut.....               | <sup>2</sup> 15.000   | <sup>2</sup> 15.000   | <sup>2</sup> 15.300   |
| Richmond, Va.:              |                       |                       |                       |
| Pennsylvania anthracite—    |                       |                       |                       |
| Stove.....                  | 14.250                | 15.625                | 15.625                |
| Chestnut.....               | 14.250                | 15.625                | 15.625                |
| Bituminous.....             | 8.692                 | 11.779                | 11.779                |
| Rochester, N. Y.:           |                       |                       |                       |
| Pennsylvania anthracite—    |                       |                       |                       |
| Stove.....                  | 13.450                | 13.450                | 13.450                |
| Chestnut.....               | 13.450                | 13.450                | 13.450                |
| St. Louis, Mo.:             |                       |                       |                       |
| Pennsylvania anthracite—    |                       |                       |                       |
| Stove.....                  | 16.125                | 16.375                | 16.313                |
| Chestnut.....               | 16.250                | 16.563                | 16.625                |
| Bituminous.....             | 6.934                 | 7.097                 | 7.153                 |
| St. Paul, Minn.:            |                       |                       |                       |
| Pennsylvania anthracite—    |                       |                       |                       |
| Stove.....                  | 17.508                | 17.500                | 17.500                |
| Chestnut.....               | 17.508                | 17.350                | 17.350                |
| Bituminous.....             | 12.416                | 12.646                | 12.170                |
| Salt Lake City, Utah:       |                       |                       |                       |
| Colorado anthracite—        |                       |                       |                       |
| Furnace, 1 and 2 mixed..... | 19.125                | 17.500                | 17.500                |
| Stove, 3 and 5 mixed.....   | 20.000                | 17.500                | 17.500                |
| Bituminous.....             | 8.706                 | 8.417                 | 8.313                 |
| San Francisco, Calif.:      |                       |                       |                       |
| New Mexico anthracite—      |                       |                       |                       |
| Cerrolos egg.....           | 24.250                | 26.500                | 26.500                |
| Colorado anthracite—        |                       |                       |                       |
| Egg.....                    | 23.750                | 24.500                | 24.500                |
| Bituminous.....             | 16.500                | 16.700                | 16.800                |
| Savannah, Ga.:              |                       |                       |                       |
| Pennsylvania anthracite—    |                       |                       |                       |
| Stove.....                  | <sup>3</sup> 16.100   | <sup>3</sup> 17.050   | <sup>3</sup> 17.050   |
| Chestnut.....               | <sup>3</sup> 16.100   | <sup>3</sup> 17.050   | <sup>3</sup> 17.050   |
| Bituminous.....             | <sup>3</sup> 10.100   | <sup>3</sup> 11.233   | <sup>3</sup> 11.400   |
| Scranton, Pa.:              |                       |                       |                       |
| Pennsylvania anthracite     |                       |                       |                       |
| Stove.....                  | 9.700                 | 9.817                 | 9.817                 |
| Chestnut.....               | 10.183                | 9.817                 | 9.817                 |
| Seattle, Wash.:             |                       |                       |                       |
| Bituminous.....             | <sup>4</sup> 9.943    | <sup>4</sup> 10.061   | <sup>4</sup> 10.150   |
| Springfield, Ill.:          |                       |                       |                       |
| Bituminous.....             | 4.625                 | 4.975                 | 4.500                 |
| Washington, D. C.:          |                       |                       |                       |
| Pennsylvania anthracite—    |                       |                       |                       |
| Stove.....                  | <sup>1</sup> 14.721   | <sup>1</sup> 15.429   | <sup>1</sup> 15.333   |
| Chestnut.....               | <sup>1</sup> 14.636   | <sup>1</sup> 15.321   | <sup>1</sup> 15.208   |
| Bituminous.....             | <sup>1</sup> 9.063    | <sup>1</sup> 10.033   | <sup>1</sup> 9.707    |

<sup>1</sup> Per ton of 2,240 pounds.

<sup>2</sup> Fifty cents per ton additional is charged for "binning." Most customers require binning or bas-keting the coal into the cellar.

<sup>3</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.

<sup>4</sup> Prices in Zone A. The cartage charges in Zone A were as follows: July, 1922, \$1.75; July and August, 1923, \$1.25. These charges have been included in the prices.

### Comparison of Retail Price Changes in the United States and Foreign Countries.

THE index numbers of retail prices published by several foreign countries have been brought together with those of this bureau in the subjoined table after having been reduced 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 compiled by the bureau, because of the fact that in some instances satisfactory information for 1913 was not available. For Belgium, Denmark, Germany, Great Britain, Norway, Sweden, and the city of Rome, Italy, the index numbers are reproduced as published in the original sources. With three exceptions all these are shown on the July, 1914, base in the source from which the information is taken. The index numbers for Belgium are computed on April, 1914, as the base period, those for Germany on the average of October, 1913, January, April, and July, 1914, while those for Rome are based on the first half of 1914. The index numbers here shown for the remaining countries 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. As shown in the table, the number of articles included in the index numbers for the different countries differs widely. These results should not, therefore, be considered as closely comparable with one another. In a few instances, also, the figures here shown are not absolutely comparable from month to month over the entire period, owing to slight changes in the list of commodities included at successive dates.

## RETAIL PRICE CHANGES.

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## INDEX NUMBERS OF RETAIL PRICES IN THE UNITED STATES AND CERTAIN OTHER COUNTRIES.

[July, 1914=100.]

| Year and month. | United States: 22 foodstuffs, to December, 1920; since that time 43 foodstuffs; 51 cities (variable). Weighted. | Australia: 46 foodstuffs; 30 towns. Weighted. | Belgium: 56 articles (variable); 59 cities. Not weighted. | Canada: 29 foodstuffs; 60 cities. Weighted. | Denmark: Family food budget; 5 persons. Weighted. | France: Family budget, 13 articles.                     |                       | Germany: Family food budget; 5 persons. Weighted. |
|-----------------|---|---|---|---|---|---|-----------------------|---|
|                 |   |   |   |   |   | Cities over 10,000 population (except Paris). Weighted. | Paris only. Weighted. |   |
| July, 1914..... | 100   | 100   | <sup>1</sup> 100  | 100   | 100   | 100   | 100                   | <sup>2</sup> 100                                  |
| July, 1915..... | 98  | 131   | .....   | 105   | 128   | <sup>3</sup> 123  | 120                   | .....   |
| July, 1916..... | 109   | 130   | .....   | 114   | 146   | <sup>3</sup> 141  | 129                   | .....   |
| July, 1917..... | 143   | 126   | .....   | 157   | 166   | <sup>3</sup> 184  | 183                   | .....   |
| July, 1918..... | 164   | 131   | .....   | 175   | 187   | <sup>3</sup> 244  | 206                   | .....   |
| July, 1919..... | 186   | 147   | .....   | 186   | 212   | <sup>3</sup> 289  | 261                   | .....   |
| 1920.           |   |   |   |   |   |   |                       |   |
| July.....       | 215   | 194   | 453   | 227   | 253   | <sup>3</sup> 388  | 373                   | 1,267   |
| August.....     | 203   | 194   | 463   | 221   | .....   | .....   | 373                   | 1,170   |
| September.....  | 199   | 197   | 471   | 215   | .....   | .....   | 407                   | 1,166   |
| October.....    | 194   | 192   | 477   | 213   | .....   | <sup>3</sup> 450  | 420                   | 1,269   |
| November.....   | 189   | 186   | 476   | 206   | .....   | .....   | 426                   | 1,343   |
| December.....   | 175   | 184   | 468   | 200   | .....   | .....   | 424                   | 1,427   |
| 1921.           |   |   |   |   |   |   |                       |   |
| January.....    | 169   | 186   | 450   | 195   | 276   | <sup>3</sup> 429  | 410                   | 1,423   |
| February.....   | 155   | 184   | 434   | 190   | .....   | .....   | 382                   | 1,362   |
| March.....      | 153   | 181   | 411   | 178   | .....   | .....   | 359                   | 1,352   |
| April.....      | 149   | 173   | 399   | 171   | .....   | <sup>3</sup> 363  | 328                   | 1,334   |
| May.....        | 142   | 168   | 389   | 165   | .....   | .....   | 317                   | 1,320   |
| June.....       | 141   | 165   | 384   | 150   | .....   | .....   | 312                   | 1,370   |
| July.....       | 145   | 161   | 379   | 148   | 236   | <sup>3</sup> 350  | 306                   | 1,491   |
| August.....     | 152   | 158   | 384   | 154   | .....   | .....   | 317                   | 1,589   |
| September.....  | 150   | 154   | 386   | 159   | .....   | .....   | 329                   | 1,614   |
| October.....    | 150   | 149   | 391   | 155   | .....   | <sup>3</sup> 348  | 331                   | 1,757   |
| November.....   | 149   | 146   | 394   | 149   | .....   | .....   | 326                   | 2,189   |
| December.....   | 147   | 143   | 393   | 148   | .....   | .....   | 323                   | 2,357   |
| 1922.           |   |   |   |   |   |   |                       |   |
| January.....    | 139   | 142   | 387   | 149   | 197   | <sup>3</sup> 323  | 319                   | 2,463   |
| February.....   | 139   | 140   | 380   | 143   | .....   | .....   | 307                   | 3,020   |
| March.....      | 136   | 141   | 371   | 142   | .....   | .....   | 294                   | 3,602   |
| April.....      | 136   | 143   | 367   | 138   | .....   | <sup>3</sup> 315  | 304                   | 4,356   |
| May.....        | 136   | 146   | 365   | 138   | .....   | .....   | 318                   | 4,680   |
| June.....       | 138   | 146   | 366   | 137   | .....   | .....   | 307                   | 5,119   |
| July.....       | 139   | 148   | 366   | 138   | 184   | <sup>3</sup> 312  | 297                   | 6,836   |
| August.....     | 136   | 149   | 366   | 141   | .....   | .....   | 289                   | 9,746   |
| September.....  | 137   | 149   | 371   | 139   | .....   | .....   | 291                   | 15,417  |
| October.....    | 140   | 146   | 376   | 138   | .....   | <sup>3</sup> 314  | 290                   | 26,623  |
| November.....   | 142   | 145   | 384   | 139   | .....   | .....   | 297                   | 54,982  |
| December.....   | 144   | 146   | 384   | 140   | .....   | .....   | 305                   | 80,762  |
| 1923.           |   |   |   |   |   |   |                       |   |
| January.....    | 141   | 145   | 383   | 142   | 180   | <sup>3</sup> 331  | 309                   | 136,606   |
| February.....   | 139   | 144   | 397   | 142   | .....   | .....   | 316                   | 318,300   |
| March.....      | 139   | 145   | 408   | 145   | .....   | .....   | 321                   | 331,500   |
| April.....      | 140   | 152   | 409   | 143   | .....   | .....   | 320                   | 350,000   |
| May.....        | 140   | 156   | 413   | 140   | .....   | .....   | 325                   | 462,000   |
| June.....       | 141   | .....   | 419   | 138   | .....   | .....   | 331                   | 934,700   |

<sup>1</sup> April, 1914.<sup>2</sup> Average for October, 1913, January, April, and July, 1914.<sup>3</sup> Quarter beginning month specified.

## INDEX NUMBERS OF RETAIL PRICES IN THE UNITED STATES AND CERTAIN OTHER COUNTRIES—Concluded.

| Year and month.  | Great Britain: 21 food-stuffs; 600 towns. Weighted. | Italy: Family food budget; 5 persons; Rome. Weighted. | Netherlands: 27 food-stuffs; Amsterdam. Weighted. | New Zealand: 59 food-stuffs; 25 towns. Weighted. | Norway: Family food budget. Weighted. | South Africa: 18 food-stuffs; 9 towns. Weighted. | Sweden: 21 articles; 44 towns. Weighted. | Switzerland: 9 groups of food-stuffs. Not weighted. |
|------------------|---|---|---|--|---------------------------------------|--|--|---|
| July, 1914. .... | 100   | <sup>4</sup> 100                                      | <sup>5</sup> 100                                  | 100  | 100                                   | <sup>6</sup> 100                                 | 100                                      | <sup>7</sup> 100                                    |
| July, 1915. .... | 132½  | 95  | .....   | 112  | .....                                 | <sup>6</sup> 107                                 | <sup>3</sup> 124                         | <sup>7</sup> 119                                    |
| July, 1916. .... | 161   | 111   | .....   | 119  | <sup>5</sup> 160                      | <sup>6</sup> 111                                 | <sup>3</sup> 142                         | <sup>7</sup> 140                                    |
| July, 1917. .... | 204   | 137   | .....   | 127  | .....                                 | <sup>6</sup> 124                                 | 177                                      | .....   |
| July, 1918. .... | 210   | 203   | .....   | 139  | 279                                   | <sup>6</sup> 125                                 | 268                                      | .....   |
| July, 1919. .... | 209   | 206   | 210   | 144  | 289                                   | <sup>6</sup> 136                                 | 310                                      | .....   |
| 1920.            |   |   |   |  |                                       |  |  |   |
| July. ....       | 258   | 318   | 217   | 167  | 319                                   | <sup>6</sup> 178                                 | 297                                      | 246   |
| August. ....     | 262   | 322   | 219   | 171  | 333                                   | .....  | 308                                      | .....   |
| September. ....  | 267   | 324   | 223   | 173  | 336                                   | .....  | 307                                      | .....   |
| October. ....    | 270   | 341   | 226   | 177  | 340                                   | .....  | 306                                      | 262   |
| November. ....   | 291   | 361   | 220   | 176  | 342                                   | .....  | 303                                      | .....   |
| December. ....   | 282   | 375   | 208   | 179  | 342                                   | .....  | 294                                      | .....   |
| 1921.            |   |   |   |  |                                       |  |  |   |
| January. ....    | 278   | 367   | 199   | 178  | 334                                   | <sup>3</sup> 166                                 | 283                                      | 243   |
| February. ....   | 263   | 376   | 200   | 175  | 308                                   | .....  | 262                                      | 237   |
| March. ....      | 249   | 386   | 199   | 169  | 300                                   | .....  | 253                                      | 234   |
| April. ....      | 238   | 432   | 193   | 169  | 300                                   | <sup>3</sup> 151                                 | 248                                      | 231   |
| May. ....        | 232   | 421   | 189   | 167  | 292                                   | .....  | 237                                      | 212   |
| June. ....       | 218   | 409   | 186   | 166  | 290                                   | .....  | 234                                      | 210   |
| July. ....       | 220   | 402   | 185   | 164  | 292                                   | <sup>3</sup> 136                                 | 232                                      | 214   |
| August. ....     | 226   | 416   | 184   | 163  | 297                                   | .....  | 234                                      | 209   |
| September. ....  | 225   | 430   | 184   | 161  | 290                                   | .....  | 228                                      | 206   |
| October. ....    | 210   | 452   | 173   | 156  | 288                                   | <sup>3</sup> 128                                 | 218                                      | 198   |
| November. ....   | 200   | 459   | 159   | 152  | 281                                   | .....  | 211                                      | 198   |
| December. ....   | 195   | 458   | 154   | 150  | 288                                   | .....  | 202                                      | 192   |
| 1922.            |   |   |   |  |                                       |  |  |   |
| January. ....    | 185   | 469   | 152   | 147  | 257                                   | 121  | 190                                      | 189   |
| February. ....   | 179   | 463   | 154   | 145  | 245                                   | 119  | 189                                      | 179   |
| March. ....      | 177   | 446   | 148   | 141  | 238                                   | 119  | 185                                      | 177   |
| April. ....      | 173   | 455   | 141   | 144  | 234                                   | 121  | 182                                      | 167   |
| May. ....        | 172   | 455   | 140   | 145  | 230                                   | 120  | 178                                      | 158   |
| June. ....       | 170   | 454   | 141   | 143  | 227                                   | 118  | 179                                      | 157   |
| July. ....       | 180   | 459   | 144   | 144  | 283                                   | 116  | 179                                      | 158   |
| August. ....     | 175   | 463   | 144   | 141  | 232                                   | 116  | 181                                      | 158   |
| September. ....  | 172   | 472   | 145   | 139  | 228                                   | 117  | 180                                      | 156   |
| October. ....    | 172   | 482   | 148   | 139  | 220                                   | 119  | 178                                      | 157   |
| November. ....   | 176   | 477   | 141   | 139  | 216                                   | 120  | 170                                      | 160   |
| December. ....   | 178   | 476   | 142   | 138  | 215                                   | 118  | 168                                      | 160   |
| 1923.            |   |   |   |  |                                       |  |  |   |
| January. ....    | 175   | 480   | 145   | 139  | 214                                   | 117  | 166                                      | 161   |
| February. ....   | 173   | 478   | 146   | 140  | 214                                   | 117  | 165                                      | 160   |
| March. ....      | 171   | 479   | 145   | 141  | 214                                   | 117  | 166                                      | 158   |
| April. ....      | 168   | 481   | 143   | 142  | 212                                   | 117  | 163                                      | 161   |
| May. ....        | 162   | 491   | .....   | 143  | 214                                   | 118  | 161                                      | 164   |
| June. ....       | 160   | .....   | .....   | 142  | 213                                   | 118  | 161                                      | 166   |

<sup>3</sup> Quarter beginning month specified.<sup>4</sup> January-June.<sup>5</sup> Year 1913.<sup>6</sup> Year.<sup>7</sup> Previous month.<sup>8</sup> August.

## Wholesale Prices, 1890 to 1922.

THE course of wholesale prices from 1890 to 1922 is reviewed in Bulletin No. 335 recently issued by the United States Bureau of Labor Statistics. This bulletin, which is the twentieth of a series of annual reports on wholesale prices published by the bureau since 1902, contains monthly detailed price information for 1921 and 1922 and yearly information back to 1890. Four hundred and fifty-four commodities or series of price quotations are included in the tables of prices for recent years.

A brief history of the wholesale price investigations of the bureau is presented in the introduction to the bulletin, followed by an explanation of the method used in constructing its weighted index numbers, which are built on 404 commodities or price series. Statements showing the character and sources of the price quotations, the number of commodities classified as to frequency of quotations (whether weekly, monthly, or average for the month), and the number that increased or decreased in average price from 1921 to 1922 are included. Tables of index numbers for the various groups of commodities and for all commodities combined are given for all years from 1890 to 1922 and all months from 1913 to 1922.

The bulletin briefly reviews price movements during 1922 and during the 10 years since 1913. Numerous charts assist the reader in following the prices of important commodities and groups of commodities over the period. Appendixes to the report contain statements showing the weights used in constructing the index numbers, the relative importance of commodities as measured by their wholesale values in 1922, and index numbers of building material prices, by subdivisions, 1913 to 1922. There is also appended a chapter reviewing the course of wholesale prices in other countries.

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### Index Numbers of Wholesale Prices in August, 1923.

**W**HOLESALE prices in August averaged slightly lower than in July according to information gathered in representative markets by the United States Department of Labor through the Bureau of Labor Statistics. The bureau's index number, which includes 404 commodities or price series weighted in proportion to their relative importance, sank to 150 in August, a drop of 1 point from the figure of the month before.

The largest decrease from the preceding month is shown for the group of fuel and lighting materials, due to further declines in bituminous coal, crude petroleum, and gasoline. The decrease in this group was  $2\frac{3}{4}$  per cent. Building materials and housefurnishing goods each declined 2 per cent from the July level. Smaller declines took place among chemicals and drugs and among commodities classified as miscellaneous, including such important articles as leather, wood pulp, manila hemp, jute, and lubricating oil.

In the group of farm products increases in corn, rye, wheat, cattle, hogs, eggs, hops, and hay brought the level of prices nearly 3 per cent higher than in July. Foods also averaged higher than in the preceding month. No change in the general price level was reported for cloths and clothing and for metals and metal products.

Of the 404 commodities or series of quotations for which comparable data for July and August were collected, decreases were shown in 137 instances and increases in 110 instances. In 157 instances no change in price was reported.



## INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES.

[1913=100.]

| Group.                         | 1922    | 1923  |         |
|--------------------------------|---------|-------|---------|
|                                | August. | July. | August. |
| Farm products.....             | 131     | 135   | 139     |
| Foods.....                     | 138     | 141   | 142     |
| Cloths and clothing.....       | 181     | 193   | 193     |
| Fuel and lighting.....         | 271     | 183   | 178     |
| Metals and metal products..... | 126     | 145   | 145     |
| Building materials.....        | 172     | 190   | 186     |
| Chemicals and drugs.....       | 122     | 128   | 127     |
| House-furnishing goods.....    | 173     | 187   | 183     |
| Miscellaneous.....             | 115     | 121   | 120     |
| All commodities.....           | 155     | 151   | 150     |

Comparing prices in August with those of a year ago, as measured by changes in the index number, it is seen that the general price level has declined  $3\frac{1}{4}$  per cent. This is due entirely to the great decreases among fuel and lighting materials, which averaged  $34\frac{1}{2}$  per cent less than in August, 1922, at which time a strike was in progress in the coal fields. In all other commodity groups prices were higher than in August of last year, ranging from 3 per cent in the case of foods to 15 per cent in the case of metals and metal products.

### Revised Index Numbers of Wholesale Prices in Canada.

A REPORT entitled "Prices and Price Indexes 1918-1922" has recently been issued by the Dominion Bureau of Statistics in the Department of Trade and Commerce, Ottawa, Canada. This report deals primarily with wholesale prices during the years 1919, 1920, and 1921 and is designed to continue the series of reports on prices and price indexes published by the Department of Labor and covering the period from 1890 up to and including 1917. With the publication of the 1917 information, the Department of Labor discontinued presenting wholesale prices in detail but continued to collect the statistics and to compute the index number for inclusion in the Labor Gazette from month to month until the Bureau of Statistics should bring out a revised series.

The revised index numbers in the new report are computed from 238 series of price quotations, there being more than one series for a small number of the commodities included. The year 1913 is adopted as the base period and the index numbers are weighted to allow for the importance of the various commodities in exchange. Three systems of commodity grouping are used. In the presentation of detailed statistics and in the principal analyses the commodities are grouped according to "chief component material" (vegetable, animal, wood, iron, etc.). The two other classifications are according to "use or purpose" (food, clothing, producers' goods, etc.) and according to "origin" (farm, forest, mineral, marine, etc.)

In the case of the "use or purpose" classification a few important commodities have been included twice so as to appear in both "producers' goods" and "consumers' goods." Under the "origin" classification, in addition to the other groupings, all commodities are

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divided into two groups, "raw or partly manufactured products" and "fully or chiefly manufactured products." It is stated that it was found impossible to define these two groups so precisely as to make them mutually exclusive, but that the commodities were classified with the best judgment that could be brought to bear upon the matter.

The formula used in constructing the weighted index numbers is that known as Laspeyre's, in which the sum of the prices in the given year or month times the quantities in the base year is divided by the sum of the prices times the quantities in the base year. The quantities used as weights are the quantities of the various commodities marketed in the base year 1913. It is stated that where 1913 was not considered a sufficiently representative year an average for several years was taken, and when data for 1913 were not available the best obtainable were used. In cases where specific information was lacking an estimate was made. In arriving at the weights duplication was avoided as much as possible. For example, a deduction was made from wheat for the amount that went into the manufacture of flour, and from flour for the quantity made into bread. A similar plan was followed with respect to certain other commodities, as barley made into malt, oats into rolled oats and oatmeal, cotton and pig iron into their finished products, etc.

To secure to each group its proper influence on the final results it was found necessary to adopt a system of group weighting in which the several group totals are multiplied by numbers designed to produce results measuring correctly the importance of those groups in the total trade of the country. The group weights are as follows:

|  |     |
|--|-----|
| Vegetable products.....                      | 1.4 |
| Animals and their products.....              | 1.0 |
| Fibers, textiles and textile products.....   | 3.4 |
| Wood and wood products.....                  | 1.3 |
| Iron and its products.....                   | 4.0 |
| Nonferrous metals and their products.....    | 1.9 |
| Nonmetallic minerals and their products..... | 1.1 |
| Chemicals and allied products.....           | 6.5 |

In the following table the weighted and unweighted index numbers computed from the same list of commodities are compared for the years 1919 to 1921:

WEIGHTED AND UNWEIGHTED INDEX NUMBERS OF WHOLESALE PRICES, BY MONTHS, 1919 TO 1921.  
[1913=100.]

| Month.         | 1919      |             | 1920      |             | 1921      |             |
|----------------|-----------|-------------|-----------|-------------|-----------|-------------|
|                | Weighted. | Unweighted. | Weighted. | Unweighted. | Weighted. | Unweighted. |
| January.....   | 205.3     | 205.8       | 232.8     | 240.6       | 201.7     | 203.5       |
| February.....  | 200.5     | 201.9       | 238.3     | 245.8       | 191.1     | 193.4       |
| March.....     | 200.2     | 200.1       | 241.1     | 252.2       | 186.4     | 189.4       |
| April.....     | 198.2     | 200.3       | 251.3     | 261.3       | 180.8     | 184.3       |
| May.....       | 201.2     | 206.2       | 256.9     | 266.5       | 171.4     | 177.4       |
| June.....      | 201.3     | 207.7       | 255.1     | 261.6       | 164.0     | 171.9       |
| July.....      | 202.3     | 215.5       | 256.1     | 262.1       | 163.4     | 170.6       |
| August.....    | 206.5     | 220.9       | 250.3     | 251.0       | 165.6     | 171.1       |
| September..... | 213.3     | 220.7       | 245.3     | 247.3       | 161.8     | 169.1       |
| October.....   | 213.8     | 219.9       | 236.3     | 239.2       | 155.5     | 166.1       |
| November.....  | 217.4     | 222.0       | 224.4     | 227.7       | 153.6     | 163.6       |
| December.....  | 223.4     | 228.6       | 212.1     | 214.9       | 154.3     | 162.7       |
| Year.....      | 207.5     | 213.2       | 241.3     | 248.2       | 170.4     | 177.3       |

Monthly weighted index numbers for 1922 for the several groups of commodities, classified according to chief component material, are shown in the table which follows:

WEIGHTED INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES  
AND BY MONTHS, 1922.

[1913=100.]

| Commodity group.          | Jan.  | Feb.  | Mar.  | Apr.  | May.  | June. | July. | Aug.  | Sept. | Oct.  | Nov.  | Dec.  |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vegetable products.....   | 145.7 | 157.0 | 161.5 | 160.5 | 161.4 | 155.8 | 157.1 | 148.4 | 132.1 | 130.9 | 137.2 | 138.1 |
| Animal products.....      | 136.7 | 134.9 | 133.0 | 136.5 | 131.1 | 130.5 | 133.6 | 133.2 | 131.1 | 133.0 | 139.6 | 143.4 |
| Textiles.....             | 172.2 | 171.8 | 166.6 | 165.1 | 172.8 | 175.4 | 175.3 | 173.5 | 174.1 | 175.6 | 182.8 | 183.9 |
| Wood.....                 | 166.4 | 162.0 | 162.4 | 162.6 | 165.1 | 164.3 | 166.0 | 166.3 | 166.4 | 171.0 | 171.0 | 174.1 |
| Iron.....                 | 148.1 | 145.5 | 144.5 | 143.1 | 145.3 | 147.2 | 147.5 | 152.3 | 157.4 | 155.7 | 155.2 | 154.3 |
| Nonferrous metals.....    | 103.6 | 101.6 | 96.7  | 95.9  | 97.0  | 98.2  | 99.3  | 99.0  | 99.8  | 100.0 | 99.4  | 98.8  |
| Nonmetallic minerals..... | 192.4 | 191.9 | 191.2 | 191.2 | 186.7 | 186.6 | 187.7 | 186.4 | 191.5 | 190.1 | 188.0 | 187.7 |
| Chemicals.....            | 169.8 | 166.9 | 166.7 | 166.1 | 166.4 | 166.1 | 166.8 | 166.7 | 166.4 | 165.9 | 166.2 | 166.5 |
| Total index.....          | 149.8 | 151.5 | 151.3 | 151.4 | 151.7 | 150.5 | 151.8 | 149.5 | 145.4 | 145.9 | 149.6 | 150.9 |

A section of the report contains monthly and yearly prices of individual commodities for 1913 and for 1919, 1920, and 1921. Quarterly and yearly index numbers, or price ratios, with average prices in 1913 expressed as 100 are also included for the same period. In addition, the report contains prices and index numbers of a family budget of staple foods, fuel and lighting, and rent in 60 cities in Canada for the years from 1913 to 1921, monthly figures being given for the more recent years. Prices and price indexes in other countries are briefly reviewed, both wholesale and retail data being included. Appendixes to the report contain a description of the method used in computing the weighted index numbers; a list of commodities arranged according to chief component material classification, with weights assigned on basis of quantities marketed; a list of commodities arranged according to purpose classification; a list of commodities arranged according to origin classification, and a table showing monthly average wholesale prices of commodities in 1918 that were collected by the Department of Labor and that are now published in order to make the official record complete from 1890.

## WAGES AND HOURS OF LABOR.

### Wages and Hours of Labor in Foundries and Machine Shops, 1923.

AVERAGE earnings per hour, average full-time hours per week, and average full-time earnings per week in 1923 are here presented for employees in foundries and machine shops in the United States.

The machine shops covered in this article are engaged in machining parts for, and assembling or constructing, engines, saw-mill machinery, cotton-ginning machinery, textile machinery, drilling machinery and pipe-line equipment, dredging and mining equipment, pumps, water wheels and water-power machinery, structural steel, and general machinery. The foundries included are mainly engaged in casting parts for the same classes of machinery. In the majority of cases the foundries and machine shops were in the same plant. The averages shown were computed from individual hours and earnings of 32,166 foundry and 58,914 machine-shop employees, constituting 15.5 per cent of all wage earners in those closely related industries in the United States.

The data were taken, by agents of the bureau, directly from the pay rolls and other records of 351 representative foundries and of 429 representative machine shops embraced within 546 different plants, located in Alabama, California, Colorado, Connecticut, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Washington, and Wisconsin, which States according to the United States Census of Manufactures, 1919, contain 97 per cent of the total number of wage earners in foundries and machine shops combined.

The data summarized in the table following were drawn from a representative pay roll of each establishment covered. For approximately 4 per cent of the establishments this pay-roll period was in January, for 26 per cent in February, for 46 per cent in March, for 16 per cent in April, and for 8 per cent in May, 1923. The great mass of the figures, therefore, are as of February and March, 1923.

It will be observed that the averages for "all occupations" in the table cover male employees in 351 foundries and females in 22 foundries, and cover males in 429 machine shops and females in 19 machine shops; that the average earnings per hour of males in all occupations in foundries is 55.9 cents and of females 40.4 cents; that the average earnings per hour of males in all occupations in machine shops is 55.6 cents and of females 36.6 cents; that the average full-time hours per week of males in foundries is 52.4 and in machine shops 50.8, and of females is approximately 49 in both industries, and that the average full-time earnings per week of males in all occupations in foundries are \$29.29 and in machine shops \$28.24, and of females in all occupations in foundries are \$19.92 and in machine shops, \$17.97.

Studying the several occupations it is seen that the average earnings per hour of males in all occupations in foundries range from 42.8 cents for laborers to 75.1 cents for patternmakers, and of males in all occupations in machine shops range from 41.8 cents for laborers to 69.3 cents for toolmakers. For females in all occupations in foundries the range is from 21.3 cents for "other foundry employees" to 43.1 cents for coremakers, and of females in machine shops the range is from 25 cents for milling machine hands and operators to 42.9 cents for screw machine hands and operators.

Average earnings per hour for each occupation were computed by dividing the total earnings of all employees in the occupation by the total hours worked by all employees in the occupation. Likewise, average full-time hours per week were found by dividing the total full-time hours per week of all employees by the total number of employees. Average full-time earnings per week were computed by multiplying the average earnings per hour by the average full-time hours per week.

The days of operation in the 12 months ending December 31, 1922, of 350 of the 351 foundries covered in 1923 ranged from 50 to 312, the average being 291 days. One establishment was closed during all of 1922 on account of business depression with a consequent lack of orders. The days of operation of 426 of the 429 machine shops covered ranged from 50 to 312, the average being 300 days. One machine shop was closed all of 1922 for lack of business, 1 shop began business January 1, 1923, and 1 shop was in operation 325 days including 15 Sundays. The difference between the average days of operation and a possible full-time of 313 days was due to the following conditions: For foundries, 98 establishments were closed by lack of orders or business depression from 2 to 257 days; 15 foundries were closed for inventory, the loss of time ranging from 1 to 6 days; 347 foundries were closed for holidays from 2 to 12 days; and 28 establishments were closed for other causes from 1 to 30 days. Likewise 51 machine shops were closed by lack of orders or business depression from 2 to 257 days; 28 machine shops were closed for inventory from 1 to 7 days; 423 machine shops were closed for holidays from 2 to 12 days; and 16 machine shops were closed for other causes from 1 to 30 days.

More extended detail will appear in a forthcoming bulletin of the Bureau of Labor Statistics.



AVERAGE FULL-TIME HOURS PER WEEK, EARNINGS PER HOUR, AND FULL-TIME EARNINGS PER WEEK IN FOUNDRIES AND MACHINE SHOPS, BY OCCUPATIONS AND SEX, 1923.

| Occupation and sex.                                 | Number of establishments. | Number of employees. | Average full-time hours per week. | Average earnings per hour. | Average full-time earnings per week. |
|---|---------------------------|----------------------|-----------------------------------|----------------------------|--------------------------------------|
| <i>Foundries.</i>                                   |                           |                      |                                   |                            |                                      |
| Chippers and rough grinders, male.....              | 319                       | 2,923                | 52.5                              | \$0.465                    | \$24.41                              |
| Core makers, male.....                              | 345                       | 2,526                | 51.4                              | .690                       | 35.47                                |
| Core makers, female.....                            | 22                        | 240                  | 49.2                              | .431                       | 21.21                                |
| Crane operators, male.....                          | 197                       | 593                  | 53.5                              | .522                       | 27.93                                |
| Cupola tenders, male.....                           | 342                       | 556                  | 52.4                              | .546                       | 28.61                                |
| Laborers, male.....                                 | 343                       | 9,265                | 53.5                              | .428                       | 22.90                                |
| Laborers, female.....                               | 8                         | 68                   | 49.4                              | .316                       | 15.61                                |
| Molders, hand, bench, male.....                     | 262                       | 2,379                | 51.3                              | .687                       | 35.24                                |
| Molders, hand, floor, male.....                     | 346                       | 4,904                | 51.2                              | .729                       | 37.32                                |
| Molders, machine, male.....                         | 161                       | 1,993                | 51.9                              | .678                       | 35.19                                |
| Molders' helpers, floor, male.....                  | 234                       | 1,986                | 52.2                              | .433                       | 22.60                                |
| Patternmakers, male.....                            | 283                       | 1,314                | 51.1                              | .751                       | 38.38                                |
| Rough carpenters, male.....                         | 261                       | 680                  | 52.0                              | .534                       | 27.77                                |
| Other foundry employees, male.....                  | 304                       | 2,737                | 53.6                              | .503                       | 26.96                                |
| Other foundry employees, female.....                | 2                         | 2                    | 51.0                              | .213                       | 10.86                                |
| All occupations, male.....                          | 351                       | 31,856               | 52.4                              | .559                       | 29.29                                |
| All occupations, female.....                        | 22                        | 310                  | 49.3                              | .404                       | 19.92                                |
| <i>Machine shops.</i>                               |                           |                      |                                   |                            |                                      |
| Assemblers, male.....                               | 310                       | 5,681                | 50.6                              | .577                       | 29.20                                |
| Assemblers, female.....                             | 6                         | 54                   | 50.2                              | .350                       | 17.57                                |
| Blacksmiths, male.....                              | 345                       | 797                  | 50.8                              | .678                       | 34.44                                |
| Blacksmiths' helpers, male.....                     | 282                       | 945                  | 50.8                              | .489                       | 24.84                                |
| Boring mill hands and operators, male.....          | 271                       | 1,455                | 50.8                              | .660                       | 33.53                                |
| Crane operators, male.....                          | 167                       | 525                  | 51.1                              | .501                       | 25.60                                |
| Drill press hands and operators, male.....          | 350                       | 3,634                | 50.8                              | .488                       | 24.79                                |
| Drill press hands and operators, female.....        | 5                         | 33                   | 49.5                              | .410                       | 20.30                                |
| Fitters and bench hands, male.....                  | 271                       | 4,721                | 49.9                              | .616                       | 30.74                                |
| Fitters and bench hands, female.....                | 4                         | 60                   | 49.0                              | .420                       | 20.58                                |
| Grinding machine hands and operators, male.....     | 221                       | 1,255                | 50.5                              | .586                       | 29.59                                |
| Grinding machine hands and operators, female.....   | 2                         | 2                    | 52.0                              | .310                       | 16.12                                |
| Laborers, male.....                                 | 375                       | 8,355                | 51.1                              | .418                       | 21.35                                |
| Laborers, female.....                               | 5                         | 30                   | 48.2                              | .323                       | 15.57                                |
| Lathe hands and operators, engine, male.....        | 347                       | 4,421                | 50.9                              | .633                       | 32.22                                |
| Lathe hands and operators, engine, female.....      | 1                         | 1                    | 50.0                              | .350                       | 17.50                                |
| Lathe hands and operators, turret, male.....        | 251                       | 2,147                | 50.5                              | .610                       | 30.81                                |
| Lathe hands and operators, turret, female.....      | 1                         | 2                    | 50.0                              | .389                       | 19.45                                |
| Machinists, male.....                               | 331                       | 2,952                | 50.0                              | .683                       | 34.15                                |
| Machinists' and toolmakers' helpers, male.....      | 251                       | 1,616                | 50.4                              | .464                       | 23.39                                |
| Milling machine hands and operators, male.....      | 268                       | 1,938                | 50.0                              | .605                       | 30.25                                |
| Milling machine hands and operators, female.....    | 1                         | 4                    | 50.0                              | .250                       | 12.50                                |
| Planer hands and operators, male.....               | 272                       | 1,339                | 50.6                              | .663                       | 33.55                                |
| Other machine hands and operators, male.....        | 289                       | 2,670                | 50.5                              | .556                       | 28.08                                |
| Other machine hands and operators, female.....      | 6                         | 76                   | 48.2                              | .422                       | 20.34                                |
| Screw machine hands and operators, male.....        | 177                       | 1,047                | 50.6                              | .564                       | 28.54                                |
| Screw machine hands and operators, female.....      | 1                         | 8                    | 48.0                              | .429                       | 20.59                                |
| Toolmakers, male.....                               | 274                       | 1,661                | 50.4                              | .693                       | 34.93                                |
| Other skilled machine shop occupations, male.....   | 356                       | 5,314                | 50.9                              | .618                       | 31.46                                |
| Other skilled machine shop occupations, female..... | 3                         | 21                   | 53.0                              | .271                       | 14.36                                |
| Other machine shop employees, male.....             | 386                       | 6,033                | 51.9                              | .459                       | 23.82                                |
| Other machine shop employees, female.....           | 8                         | 117                  | 48.7                              | .325                       | 15.83                                |
| All occupations, male.....                          | 429                       | 58,506               | 50.8                              | .556                       | 28.24                                |
| All occupations, female.....                        | 19                        | 408                  | 49.1                              | .366                       | 17.97                                |



## Schedule of Wages for Civil Employees Under the Naval Establishment.

THE Navy Department under date of July 16, 1923, issued a revised schedule of wages covering all civilians employed in the Naval Establishment and Marine Corps within the continental limits of the United States and at Pearl Harbor, Hawaii, the schedule to remain in force until December 31, 1923.

The following tables give the rates of pay for certain occupations in the clothing workers' service and in the laborer, helper, and mechanical service, at specified stations:

### RATES OF PAY<sup>1</sup> PER HOUR OF CLOTHING WORKERS AT SPECIFIED STATIONS.

#### *Navy Supply Depot, South Brooklyn, N. Y.*

| Occupation.                  | Rate per hour. | Occupation.                 | Rate per hour. |
|------------------------------|----------------|-----------------------------|----------------|
| Assistant custom cutter..... | \$0.85         | Double-needle operator..... | \$0.70         |
| Baster.....                  | .85            | Dress-coat maker.....       | .95            |
| Bushelman.....               | .80            | Finish presser.....         | .95            |
| Canvas maker.....            | .65            | Finisher.....               | .55            |
| Chopper.....                 | .75            | Fitter.....                 | .85            |
| Cloth sponger.....           | .75            | General tailor.....         | .85            |
| Clothing examiner.....       | .75            | Head custom cutter.....     | 1.35           |
| Coat maker.....              | .90            | Head buttonhole maker.....  | .80            |
| Coat operator.....           | 1.00           | Pocket maker.....           | 1.00           |
| Collar maker.....            | .90            | Trimmer.....                | .60            |
| Custom cutter.....           | 1.25           | Trouser maker.....          | .80            |
| Cutter-machine operator..... | .90            | Trouser operator.....       | .90            |
| Cutter and marker.....       | .85            | Underpresser.....           | .80            |
| Die-machine operator.....    | .75            | Vest maker.....             | .75            |

#### *Depot of Supplies, United States Marine Corps, Philadelphia, Pa.*

|                             |        |                           |        |
|-----------------------------|--------|---------------------------|--------|
| Custom cutter.....          | \$1.08 | Examiner (female).....    | \$0.35 |
| Coat fitter.....            | .81    | Inspectress.....          | .41    |
| Cutter.....                 | .72    | Operator (female).....    | .44    |
| Cutter and marker.....      | .59    | Sponger.....              | .43    |
| Designer, embroideress..... | .53    | Tailor, first class.....  | .73    |
| Embroideress.....           | .35    | Tailor, second class..... | .54    |

<sup>1</sup> Rates of pay given are the maximum. Intermediate rate is 5 cents per hour less than maximum and minimum rate is 5 cents per hour less than intermediate.

### RATES OF PAY<sup>1</sup> PER HOUR OF EMPLOYEES IN THE LABORER, HELPER, AND MECHANICAL SERVICE, AT SPECIFIED STATIONS.

| Occupation.              | Boston. | New York. | Philadelphia. | Washington. | Norfolk. | Charleston. | New Orleans. | Mare Island. | Puget Sound. | Great Lakes. |
|--------------------------|---------|-----------|---------------|-------------|----------|-------------|--------------|--------------|--------------|--------------|
| <i>Group I.</i>          |         |           |               |             |          |             |              |              |              |              |
| Form lifter (P. S.)..... | \$0.56  | \$0.56    | \$0.54        | \$0.54      | \$0.48   | \$0.48      | \$0.48       | \$0.57       | \$0.57       | \$0.56       |
| Janitor.....             | .50     | .50       | .48           | .48         | .38      | .31         | .32          | .50          | .50          | .50          |
| Laborer, common.....     | .52     | .52       | .50           | .50         | .40      | .31         | .34          | .52          | .52          | .52          |
| <i>Group II.</i>         |         |           |               |             |          |             |              |              |              |              |
| Coxswain.....            | .56     | .56       | .54           | .54         | .48      | .48         | .48          | .56          | .56          | .56          |
| Hammer runner:           |         |           |               |             |          |             |              |              |              |              |
| Heavy.....               | .64     | .64       | .62           | .62         | .56      | .56         | .56          | .64          | .64          | .64          |
| Others.....              | .59     | .59       | .57           | .57         | .51      | .51         | .51          | .59          | .59          | .59          |

<sup>1</sup> Rates of pay given are the maximum. Intermediate rate is 5 cents per hour less than maximum, and minimum rate is 5 cents per hour less than intermediate.

## RATES OF PAY PER HOUR OF EMPLOYEES IN THE LABORER, HELPER, AND MECHANICAL SERVICE, AT SPECIFIED STATIONS—Continued.

| Occupation.  | Bos-<br>ton. | New<br>York. | Phila-<br>del-<br>phia. | Wash-<br>ing-<br>ton. | Nor-<br>folk. | Charles-<br>ton. | New<br>Or-<br>leans. | Mare<br>Island. | Puget<br>Sound. | Great<br>Lakes. |
|--|--------------|--------------|-------------------------|-----------------------|---------------|------------------|----------------------|-----------------|-----------------|-----------------|
| <i>Group II—Concluded.</i>                               |              |              |                         |                       |               |                  |                      |                 |                 |                 |
| <i>Helper:</i>   |              |              |                         |                       |               |                  |                      |                 |                 |                 |
| Blacksmith's <sup>2</sup> —                              |              |              |                         |                       |               |                  |                      |                 |                 |                 |
| Heavy fires.....   | \$0.61       | \$0.61       | \$0.59                  | \$0.59                | \$0.53        | \$0.53           | \$0.53               | \$0.62          | \$0.62          | \$0.61          |
| Other fires.....   | .56          | .56          | .54                     | .54                   | .48           | .48              | .48                  | .57             | .57             | .56             |
| Boiler maker's.....                                      | .56          | .56          | .54                     | .54                   | .48           | .48              | .48                  | .57             | .57             | .56             |
| Forger's, heavy.....                                     | .61          | .61          | .59                     | .59                   | .53           | .53              | .53                  | .62             | .62             | .61             |
| General.....   | .56          | .56          | .54                     | .54                   | .48           | .48              | .48                  | .57             | .57             | .56             |
| Machinist's.....   | .56          | .56          | .54                     | .54                   | .48           | .48              | .48                  | .57             | .57             | .56             |
| Molder's.....  | .56          | .56          | .54                     | .54                   | .48           | .48              | .48                  | .57             | .57             | .56             |
| Pipe fitter's.....                                       | .56          | .56          | .54                     | .54                   | .48           | .48              | .48                  | .57             | .57             | .56             |
| Sheet-metal worker's.....                                | .56          | .56          | .54                     | .54                   | .48           | .48              | .48                  | .57             | .57             | .56             |
| Ship fitter's.....                                       | .56          | .56          | .54                     | .54                   | .48           | .48              | .48                  | .57             | .57             | .56             |
| Woodworker's.....  | .56          | .56          | .54                     | .54                   | .48           | .48              | .48                  | .57             | .57             | .56             |
| Hod carrier.....   | .61          | .61          | .59                     | .59                   | .53           | .53              | .53                  | .61             | .61             | .61             |
| Holder-on.....   | .56          | .56          | .56                     | .53                   | .53           | .53              | .53                  | .60             | .60             | .60             |
| Laborer, classified.....                                 | .52          | .52          | .50                     | .50                   | .40           | .31              | .34                  | .52             | .52             | .52             |
| Oiler.....   | .70          | .73          | .68                     | .68                   | .66           | .66              | .65                  | .76             | .76             | .71             |
| Press feeder, folder, stitcher,<br>etc. (P. S.).....     | .56          | .56          | .54                     | .54                   | .48           | .48              | .48                  | .57             | .57             | .56             |
| Rivet heater.....  | .52          | .52          | .50                     | .50                   | .40           | .31              | .34                  | .52             | .52             | .52             |
| Sand blaster.....  | .66          | .66          | .64                     | .64                   | .58           | .58              | .58                  | .66             | .66             | .66             |
| Stevodore.....   | .58          | .62          | .56                     | .56                   | .46           | .47              | .47                  | .58             | .58             | .58             |
| Teamster.....  | .54          | .60          | .52                     | .52                   | .45           | .45              | .45                  | .60             | .60             | .60             |
| <i>Group III.</i>  |              |              |                         |                       |               |                  |                      |                 |                 |                 |
| <i>Aircraft machinist:</i>                               |              |              |                         |                       |               |                  |                      |                 |                 |                 |
| General.....   | .82          | .85          | .80                     | .80                   | .78           | .78              | .77                  | .88             | .88             | .83             |
| Motor.....   | .82          | .85          | .80                     | .80                   | .78           | .78              | .77                  | .88             | .88             | .83             |
| <i>Angle smith:</i>                                      |              |              |                         |                       |               |                  |                      |                 |                 |                 |
| Heavy fires.....   | .92          | .95          | .90                     | .90                   | .88           | .88              | .87                  | .98             | .98             | .93             |
| Other fires.....   | .82          | .85          | .80                     | .80                   | .78           | .78              | .77                  | .88             | .88             | .83             |
| <i>Blacksmith: <sup>3</sup></i>                          |              |              |                         |                       |               |                  |                      |                 |                 |                 |
| Heavy fires.....   | .92          | .95          | .90                     | .90                   | .88           | .88              | .87                  | .98             | .98             | .93             |
| Other fires.....   | .82          | .85          | .80                     | .80                   | .78           | .78              | .77                  | .88             | .88             | .83             |
| Boiler maker.....  | .82          | .85          | .80                     | .80                   | .78           | .78              | .77                  | .88             | .88             | .83             |
| Bookbinder (P. S.).....                                  | .82          | .85          | .80                     | .80                   | .78           | .78              | .77                  | .88             | .88             | .83             |
| Buffer and polisher.....                                 | .77          | .80          | .75                     | .75                   | .73           | .73              | .72                  | .83             | .83             | .78             |
| Canvas worker.....                                       | .70          | .70          | .70                     | .70                   | .70           | .70              | .70                  | .70             | .70             | .70             |
| Calk, wood.....  | .77          | .80          | .75                     | .75                   | .73           | .73              | .72                  | .83             | .83             | .78             |
| Calk and chipper, iron.....                              | .82          | .85          | .80                     | .80                   | .78           | .78              | .77                  | .88             | .88             | .83             |
| Cement worker.....                                       | .60          | .60          | .58                     | .58                   | .48           | .39              | .42                  | .58             | .58             | .58             |
| Cement finisher.....                                     | .87          | .90          | .85                     | .85                   | .83           | .83              | .82                  | .93             | .93             | .88             |
| Cooper.....  | .72          | .75          | .70                     | .70                   | .68           | .68              | .67                  | .78             | .78             | .73             |
| Coppersmith.....   | .87          | .90          | .85                     | .85                   | .83           | .83              | .82                  | .93             | .93             | .88             |
| Craneman, electric (under 40<br>tons) <sup>4</sup> ..... | .72          | .75          | .70                     | .70                   | .75           | .68              | .67                  | .78             | .78             | .73             |
| Cupola tender.....                                       | .77          | .80          | .75                     | .75                   | .73           | .73              | .82                  | .83             | .83             | .78             |
| Die sinker.....  | .92          | .95          | .90                     | .90                   | .88           | .88              | .87                  | .98             | .98             | .93             |
| Diver.....   | 1.86         | 1.86         | 1.86                    | 1.86                  | 1.86          | 1.86             | 1.86                 | 1.86            | 1.86            | 1.86            |
| <i>Driller:</i>  |              |              |                         |                       |               |                  |                      |                 |                 |                 |
| Pneumatic.....   | .67          | .70          | .65                     | .65                   | .63           | .63              | .62                  | .73             | .73             | .68             |
| Press.....   | .62          | .65          | .60                     | .60                   | .58           | .58              | .57                  | .68             | .68             | .63             |
| Electrician.....   | .82          | .85          | .80                     | .80                   | .78           | .78              | .77                  | .88             | .88             | .83             |
| Electroplater.....                                       | .82          | .85          | .80                     | .80                   | .78           | .78              | .77                  | .88             | .88             | .83             |
| <i>Engineman <sup>5</sup></i>                            |              |              |                         |                       |               |                  |                      |                 |                 |                 |
| Locomotive.....  | .82          | .85          | .80                     | .80                   | .78           | .78              | .77                  | .88             | .88             | .83             |
| Donkeys and winches.....                                 | .82          | .85          | .80                     | .80                   | .78           | .78              | .77                  | .88             | .88             | .83             |
| Pile driver.....   | .82          | .85          | .80                     | .80                   | .78           | .78              | .77                  | .88             | .88             | .83             |
| Steam shovel.....  | .97          | 1.00         | .95                     | .95                   | .93           | .93              | .92                  | 1.03            | 1.03            | .98             |

<sup>2</sup> Helpers, blacksmith's, working with blacksmiths on the classes of heavy forging work stated in the note to "blacksmiths" shall receive the corresponding pay for helpers, blacksmith's, heavy fires, or helpers, heavy forger's.

<sup>3</sup> For each day during any portion of which blacksmiths are engaged upon forging material 4 inches square or more and less than 6 inches square, they shall be paid the blacksmith, heavy fires, rate of pay. For each day during any portion of which they are engaged upon forging material 6 inches square or larger, they shall be paid the heavy forger rate of pay.

<sup>4</sup> Cranemen, electric, when operating cranes of 40 tons' capacity or more shall receive additional allowance per hour as follows:

|  |        |
|--|--------|
| 40 tons and over, handling cold metal.....                           | \$0.15 |
| 40 tons and over, handling hot metal.....                            | .15    |
| Hammerhead cranes of building slips, any capacity.....               | .05    |
| Cantilever cranes of building slips, any capacity.....               | .05    |
| Electrically operated floating derricks, under 75 tons capacity..... | .10    |
| Electrically operated floating derricks, 75 tons and over.....       | .15    |

<sup>5</sup> Enginemen, when operating floating derricks of 75 tons and over shall receive additional allowance of 5 cents per hour. This note does not apply to Norfolk Navy Yard.

RATES OF PAY PER HOUR OF EMPLOYEES IN THE LABORER, HELPER, AND MECHANICAL SERVICE, AT SPECIFIED STATIONS—Concluded.

| Occupation.                         | Boston. | New York. | Philadelphia. | Washington. | Norfolk. | Charleston. | New Orleans. | Mare Island. | Puget Sound. | Great Lakes. |
|-------------------------------------|---------|-----------|---------------|-------------|----------|-------------|--------------|--------------|--------------|--------------|
| <i>Group III—Concluded.</i>         |         |           |               |             |          |             |              |              |              |              |
| Fireman.....                        | \$0.70  | \$0.73    | \$0.68        | \$0.68      | \$0.66   | \$0.66      | \$0.65       | \$0.76       | \$0.76       | \$0.71       |
| Flange turner.....                  | .87     | .90       | .85           | .85         | .83      | .83         | .82          | .93          | .93          | .88          |
| Forger:                             |         |           |               |             |          |             |              |              |              |              |
| Drop.....                           | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Heavy.....                          | 1.32    | 1.35      | 1.30          | 1.30        | 1.28     | 1.28        | 1.27         | 1.38         | 1.38         | 1.33         |
| Foundry chipper.....                | .61     | .61       | .59           | .59         | .53      | .53         | .53          | .61          | .61          | .61          |
| Frame bender.....                   | .87     | .90       | .85           | .85         | .83      | .83         | .82          | .93          | .93          | .88          |
| Furnace man:                        |         |           |               |             |          |             |              |              |              |              |
| Angle work.....                     | .62     | .65       | .60           | .60         | .58      | .58         | .57          | .68          | .68          | .63          |
| Foundry.....                        | .62     | .65       | .60           | .60         | .58      | .58         | .57          | .68          | .68          | .63          |
| Heater.....                         | .62     | .65       | .60           | .60         | .58      | .58         | .57          | .68          | .68          | .63          |
| Heavy forge, heater.....            | .72     | .75       | .70           | .70         | .68      | .68         | .67          | .78          | .78          | .73          |
| Other forge.....                    | .62     | .65       | .60           | .60         | .58      | .58         | .57          | .68          | .68          | .63          |
| Open-hearth, heater.....            | .62     | .65       | .60           | .60         | .58      | .58         | .57          | .68          | .68          | .63          |
| Galvanizer.....                     | .62     | .65       | .60           | .60         | .58      | .58         | .57          | .68          | .68          | .63          |
| Instrument assembler.....           | .72     | .75       | .70           | .70         | .68      | .68         | .67          | .78          | .78          | .73          |
| Instrument maker.....               | .87     | .90       | .85           | .85         | .83      | .83         | .82          | .93          | .93          | .88          |
| Job compositor (P. S.).....         | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Job printer (P. S.).....            | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Joiner.....                         | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Joiner, ship.....                   | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Ladleman, foundry.....              | .62     | .65       | .60           | .60         | .58      | .58         | .57          | .68          | .68          | .63          |
| Leather worker.....                 | .72     | .75       | .70           | .70         | .68      | .68         | .67          | .78          | .78          | .73          |
| Lead burner.....                    | 1.02    | 1.00      | 1.00          | 1.00        | .98      | .98         | .97          | 1.08         | 1.08         | 1.03         |
| Lettierer and grainer.....          | .87     | .90       | .85           | .85         | .83      | .83         | .82          | .93          | .93          | .88          |
| Leverman.....                       | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Lineman.....                        | .67     | .70       | .65           | .65         | .63      | .63         | .62          | .73          | .73          | .68          |
| Linotype and monotype operator..... | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Loftman.....                        | .87     | .90       | .85           | .85         | .83      | .83         | .82          | .93          | .93          | .88          |
| Machinist.....                      | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Machinist operator (P. S.).....     | .87     | .90       | .85           | .85         | .83      | .83         | .82          | .93          | .93          | .88          |
| Mason, brick or stone.....          | 1.12    | 1.12      | 1.12          | 1.12        | 1.12     | 1.12        | 1.12         | 1.15         | 1.15         | 1.12         |
| Melter:                             |         |           |               |             |          |             |              |              |              |              |
| Electric.....                       | 1.05    | 1.05      | 1.05          | 1.05        | 1.05     | 1.05        | 1.05         | 1.05         | 1.05         | 1.05         |
| Open hearth.....                    | 1.01    | 1.01      | 1.01          | 1.01        | 1.01     | 1.01        | 1.01         | 1.01         | 1.01         | 1.01         |
| Metallic cartridge casemaker.....   | .60     | .60       | .60           | .60         | .60      | .60         | .60          | .60          | .60          | .60          |
| Millman.....                        | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Model maker, wood.....              | .92     | .95       | .90           | .90         | .88      | .88         | .87          | .98          | .98          | .93          |
| Molder.....                         | .87     | .90       | .85           | .85         | .83      | .83         | .82          | .93          | .93          | .88          |
| Ordinance man.....                  | .72     | .75       | .70           | .70         | .68      | .68         | .67          | .78          | .78          | .73          |
| Packer.....                         | .67     | .70       | .65           | .65         | .63      | .63         | .62          | .73          | .73          | .68          |
| Painter.....                        | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Patternmaker.....                   | .92     | .95       | .90           | .90         | .88      | .88         | .87          | .98          | .98          | .93          |
| Pipe coverer and insulator.....     | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Pipe fitter.....                    | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Plasterer.....                      | 1.12    | 1.12      | 1.12          | 1.12        | 1.12     | 1.12        | 1.12         | 1.15         | 1.15         | 1.12         |
| Plumber.....                        | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Pressman (P. S.).....               | .72     | .75       | .70           | .70         | .68      | .68         | .67          | .78          | .78          | .73          |
| Puncher and shearer.....            | .62     | .65       | .60           | .60         | .58      | .58         | .57          | .68          | .68          | .63          |
| Pyrometer man.....                  | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Rigger.....                         | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Riveter.....                        | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Rodman.....                         | .60     | .60       | .60           | .60         | .60      | .60         | .60          | .60          | .60          | .60          |
| Sailmaker.....                      | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Saw filer.....                      | .87     | .95       | .85           | .85         | .83      | .83         | .82          | .93          | .93          | .88          |
| Sewer.....                          | .53     | .53       | .51           | .51         | .41      | .41         | .41          | .53          | .53          | .53          |
| Sheet-metal worker.....             | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Shipfitter.....                     | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Shipwright.....                     | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Steel worker, structural.....       | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Stonecutter.....                    | .97     | 1.00      | .95           | .95         | .93      | .93         | .92          | 1.03         | 1.03         | .98          |
| Temperer.....                       | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Tile and plate setter.....          | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Toolmaker.....                      | .87     | .90       | .85           | .85         | .83      | .83         | .82          | .93          | .93          | .88          |
| Trackman.....                       | .62     | .62       | .60           | .60         | .50      | .41         | .44          | .62          | .62          | .62          |
| Water tender.....                   | .72     | .75       | .70           | .70         | .68      | .68         | .67          | .78          | .78          | .73          |
| Welder:                             |         |           |               |             |          |             |              |              |              |              |
| Electric.....                       | .87     | .90       | .85           | .85         | .83      | .83         | .82          | .93          | .93          | .88          |
| Gas.....                            | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |
| Wharf builder.....                  | .82     | .85       | .80           | .80         | .78      | .78         | .77          | .88          | .88          | .83          |

Hours of Work in Buenos Aires.<sup>1</sup>

THE statistical division of the National Department of Labor of Argentina conducted a special investigation to ascertain the average length of the working-day in the Federal capital during the year 1922. The outcome of this investigation showed that 8 hours and 2 minutes constituted the average working-day for 64,144 individuals working in different factories and workshops. Of the 64,144 persons included in this average, 112 worked six hours; 1,249, seven hours; 59,525, eight hours; 277, eight and one-half hours; 2,166, nine hours; 20, nine and one-half hours; and 795, ten hours.

## English Factory Hours and the Two-Shift System for Women.

THE annual report of the chief inspector of factories and workshops in England for the year 1922 calls attention to the change which has taken place in hours of employment within the past 10 years. Before the war a 60-hour week and a 10 or 10½ hour day were customary, and in some industries these hours were extended by 30 to 60 nights of overtime during the year. Violations of the factory acts were common, and it was a frequent occurrence for illegal overtime to be worked. "Work was taken home by employees to be done after hours, and statutory mealtimes were curtailed."

During the war, previous legislation as to hours was largely suspended, with the result that there was at first an effort to establish long hours and night and Sunday work without regard to the breaks and rests that had formerly been considered necessary. This soon proved to be uneconomic, as regards production, and a serious attempt was made to find out what hours were most effective, and how these could be most effectively arranged. Experiments were tried as to different schedules of hours, and the value of breaks and rest spells at different times of day and for different periods. These experiments, according to the report, have borne fruit in a general reduction of hours of work.

The reports from the inspectors show that without resorting to legislation the hours of work have been generally reduced to a total varying from 44 to 48 hours per week, and that overtime is rare, and a five-day week and a one-break day are common. Trade depression may account for this reduction to a certain extent, but not altogether. Few workers would now be willing to work longer hours, and some occupiers say that output in the reduced period is almost, if not quite, up to that of the longer period, while others hold that it would not be worth their while to pay the overtime rates fixed for their industries.

Some space is also given in the report to the working of the two-shift system for women in factories. This system was rendered possible by an act passed in December, 1920, which extended the time during which women might be employed from 8 p. m. to 10 p. m., thereby rendering it feasible to employ two 8-hour shifts of women, instead of one 10-hour shift, within the limits of the legal day. This extension of time was looked upon as a dubious experiment, and the period during which it was to be permitted expires in 1925. (For an account of the opposition to the act, and the arguments for and

<sup>1</sup> Argentina. Boletín del Museo Social Argentino, Buenos Aires, March, 1923, p. 34.

against, see the MONTHLY LABOR REVIEW, April, 1921, pp. 92-95.) The results of the experiment, the chief inspector feels, are not decisive.

The unsatisfactory position of employment in general and employment of women in particular—for nearly all women's trades have been profoundly affected by the prolonged "slump"—has inevitably hampered observation of the working of the two-shift system. For such observation to warrant decisive conclusions it must have been applied to a fairly wide range of cases under normal conditions of the labor market; in fact, the cases have been few as the inevitable result of conditions altogether abnormal. \* \* \* The experiment which these orders represent is still in an inconclusive stage; circumstances have hitherto not allowed of its submission to any thorough and searching test.

At the end of 1922 there were in force 235 orders permitting the use of the two-shift system, of which about half represented the actual employment at that time of the system. Of the others, many had been taken out for temporary emergencies, and, the emergency over, the plan had been discontinued. It is rather unusual for the system to be applied throughout a whole factory; more commonly, it is introduced into single departments which have not been able to keep up with the production of other departments with which they are correlated. In some sections of the country, however, it is used continuously throughout large plants.

The attitude of employers toward the system differs considerably, and is apparently much affected by the extent to which it is in use. When it is applied to only one department, or to only a small proportion of the workers, many employers feel that it does not pay; also the attitude of the managers has an important bearing upon its success.

In factories where full use has been made of the order over some length of time, and the majority of the workers are employed on two shifts, the opinion of the management is favorable to the system, as increasing output and lowering overhead charges. \* \* \* "The advantages and disadvantages of this system depend largely on the organizing capacity of the occupier or manager, and on his personal feelings in the matter. To run two shifts successfully good organization is essential and careful supervision."

Among the workers there are similar differences of opinion, but the objection to it is modified by the fact that it affords employment for more women and girls than does a one-shift system, and in the present lack of employment this offsets many drawbacks. In general, those who have been working under it longest are most inclined to approve of it. The main objection brought against it is the loss of wages involved in the shorter working hours. Apart from this, the distance from the workers' homes to the factory seems to be the main factor in deciding their attitude. "Those in its favor are almost always found to live close to the factory."

### New Schedule of Hours in British Building Trades.

THE MONTHLY LABOR REVIEW for June, 1923 (pp. 47-51), contained an account of the disagreement of the organizations of employers and workers in the British building industry over a proposed cut in wages and increase of hours, in which a stoppage was averted at the last moment, and arbitration accepted. The award concerning wages was given in the MONTHLY LABOR REVIEW for August (p. 159). The proposed lengthening of the working week



was fought by the workers much more bitterly than the reduction in wages. At the time of the disagreement the hours were 44 per week, except in December and January, when they were  $41\frac{1}{2}$ . The employers' proposition was that for eight months the working week should consist of 47 hours, for two months of 44, and for two months of  $41\frac{1}{2}$ . A vote of the men on these terms, modified only by the substitution of  $46\frac{1}{2}$  for 47 hours, showed 118,600 votes against and only 11,600 votes in favor of acceptance. The question was finally left to the arbitration of Sir Hugh Fraser, whose decision is given in the *Manchester Guardian* of August 21, 1923. In the main, it is a compromise, the principal ruling being as follows:

That the present rule whereby  $41\frac{1}{2}$  hours per week are worked during December and January be rescinded and that the working time of 44 hours per week shall proceed throughout the year, except during the period of summer time as determined by statute (approximately 21 weeks; for example, for 1923, on and from April 23 to September 17), when the working time shall be extended to  $46\frac{1}{2}$  hours per week by adding half an hour to each of the first five working-days of the week.

As summer time would end so soon after the giving of the award, it was provided that no change in the working hours should be made until it expired, when the 44-hour week, in effect at the time of the award, would become the standard set by this decision. A proviso is made that in works in which artificial light can not be reasonably supplied, at the request of the majority of operatives the week may be shortened, during December and January, to  $41\frac{1}{2}$  hours, "such shortened working hours thus becoming an occasional exception, and not a general rule as at present." Another important section allows regional agreements varying the terms of the award: "Nothing in this award shall prevent employers and operatives in any town or area from maintaining by mutual consent the 44-hour week throughout the year."

The representatives of both employers and workers have accepted the award and recommended to their respective bodies that it be loyally followed.

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### Wages in Specified Occupations in Norway, September, 1921, and November, 1922.<sup>1</sup>

THE following table is compiled from the annual report on wages in Norway, issued by the Norwegian Central Statistical Bureau. Wages for some of the cities are based on reports from the employment agencies. The wages do not include piecework, so that in those trades in which piecework is important the actual wage is not shown.

<sup>1</sup> Norway. Statistiske Centralbyrå. Lønninger, 1922. Christiania, 1923.



AVERAGE WAGES (NOT INCLUDING PIECEWORK) FOR 40 CITIES OF NORWAY,  
SEPTEMBER, 1921, AND NOVEMBER, 1922.

[Krone at par=26.8 cents.]

| Occupation.                    | Wages per hour.     |                    | Wages per week.     |                    |
|--------------------------------|---------------------|--------------------|---------------------|--------------------|
|                                | September,<br>1921. | November,<br>1922. | September,<br>1921. | November,<br>1922. |
|                                | <i>Kroner.</i>      | <i>Kroner.</i>     | <i>Kroner.</i>      | <i>Kroner.</i>     |
| Carpenters and joiners.....    | 2.11                | 1.61               | 98.85               | 77.35              |
| Masons.....                    | 2.20                | 1.70               | 105.70              | 81.44              |
| Hod men.....                   | 2.08                | 1.56               | 99.73               | 74.65              |
| Painters.....                  | 2.13                | 1.63               | 102.15              | 78.47              |
| Cement molders, etc.....       | 2.04                | 1.55               | 97.94               | 74.14              |
| Bakers <sup>1</sup> .....      |                     |                    | 114.41              | 86.27              |
| Shoemakers.....                |                     |                    | 95.49               | 77.71              |
| Tailors.....                   |                     |                    | 95.61               | 82.70              |
| Drivers.....                   |                     |                    | 87.88               | 69.37              |
| Seamstresses.....              |                     |                    | 55.20               | 39.13              |
| Laundry workers, female.....   |                     |                    | 50.88               | 43.65              |
| Maid servants:                 |                     |                    |                     |                    |
| 17 to 19 years of age.....     | <sup>2</sup> 51.06  | <sup>2</sup> 47.62 |                     |                    |
| 20 to 24 years of age.....     | <sup>2</sup> 60.30  | <sup>2</sup> 56.75 |                     |                    |
| 25 to 54 years of age.....     | <sup>2</sup> 67.77  | <sup>2</sup> 63.67 |                     |                    |
| Charwomen and washerwomen..... | <sup>3</sup> 7.92   | <sup>3</sup> 7.00  |                     |                    |

<sup>1</sup> At most places bakers receive free working clothes, or about 15 kroner (\$4.02, par) per month for clothes.<sup>2</sup> Per month.<sup>3</sup> Per day.Wages in Poland, 1923.<sup>1</sup>

DURING the period from January to May, 1923, the cost of living index (January 1, 1914) for a workman's family of four persons in Warsaw, Poland, has risen from 3,527 to 9,467, or 168 per cent. During the same period the daily wage rates of skilled metal workers, as fixed in collective agreements without consideration of possible excess earnings of pieceworkers, have risen to 29,516 marks,<sup>2</sup> or to 6,361 times the pre-war (January, 1914) rate, and those of skilled building trades workers to 50,912, or 9,791 times the pre-war rate. In the printing trades, compositors received in May, 1923, a weekly wage of 450,600 marks (15,722 times the pre-war rate), and unskilled workers one of 225,300 marks (18,082 times the pre-war rate). The daily wage of unskilled metal workers in May, 1923, was 21,337 marks (8,965 times the pre-war rate), and that of unskilled building trades workers 40,840 marks (18,907 times the pre-war rate).

The development of wage rates of skilled and unskilled metal workers and building trades workers in Warsaw during 1922 and 1923 is shown in the table following. For purposes of comparison, the 1914 wage is also shown.

<sup>1</sup> Germany. Statistisches Reichsamt, Wirtschaft und Statistik, Berlin, July, 1923, p. 446.<sup>2</sup> Polish mark=23.8 cents, par. On May 26, 1923, however, the exchange rate was 1,191,150 Polish marks for \$1.

DAILY WAGE RATES FIXED BY COLLECTIVE AGREEMENTS FOR METAL AND BUILDING TRADES WORKERS IN WARSAW IN JANUARY, 1914, AND IN SPECIFIED MONTHS IN 1922 AND 1923.

[Polish mark at par=23.8 cents.]

| Period.            | Metal workers. |        |            |        | Building trades workers. |        |            |        |
|--------------------|----------------|--------|------------|--------|--------------------------|--------|------------|--------|
|                    | Skilled.       |        | Unskilled. |        | Skilled.                 |        | Unskilled. |        |
|                    | Marks.         | Index. | Marks.     | Index. | Marks.                   | Index. | Marks.     | Index. |
| 1914: January..... | 4.64           | 1      | 2.38       | 1      | 5.20                     | 1      | 2.16       | 1      |
| 1922:              |                |        |            |        |                          |        |            |        |
| March.....         | 2,022          | 436    | 1,642      | 690    | 2,316                    | 445    | 1,880      | 870    |
| October.....       | 4,604          | 992    | 3,416      | 1,435  | 6,880                    | 1,323  | 5,264      | 2,437  |
| 1923:              |                |        |            |        |                          |        |            |        |
| January.....       | 10,064         | 2,169  | 7,464      | 3,136  | 14,088                   | 2,709  | 11,296     | 5,230  |
| February.....      | 14,344         | 3,091  | 10,368     | 4,356  | 21,504                   | 4,135  | 17,248     | 7,985  |
| March.....         | 21,082         | 4,544  | 15,240     | 6,403  | 34,792                   | 6,691  | 27,904     | 12,919 |
| April.....         | 23,107         | 6,053  | 20,320     | 8,538  | 46,448                   | 8,932  | 37,256     | 17,248 |
| May.....           | 29,516         | 6,361  | 21,337     | 8,965  | 50,912                   | 9,791  | 40,840     | 18,907 |

The money wage rates given above have very little meaning for persons not living in Poland. An attempt has therefore been made to convert the money wages into real wages as measured by purchasing power. This has been done by multiplying the money wage index by 100 and dividing the product by the cost of living index for the corresponding month. The result of this operation gives the real wage index. The real wage rate for each month has then been ascertained by multiplying the pre-war wage rate by the real wage index of the month in question and dividing the product by 100. In the following table are shown the real wage rates in Warsaw for various trades in March, April, and May, 1923:

REAL DAILY WAGE RATES OF METAL AND BUILDING TRADES WORKERS AND PRINTERS IN WARSAW, MARCH, APRIL, AND MAY, 1923.

[Polish mark at par=23.8 cents.]

| Occupation.                                      | March, 1923. |                                    | April, 1923. |                                    | May, 1923. |                                    |
|--|--------------|------------------------------------|--------------|------------------------------------|------------|------------------------------------|
|  | Amount.      | Index number. (January, 1914=100). | Amount.      | Index number. (January, 1914=100). | Amount.    | Index number. (January, 1914=100). |
|  | Marks.       |                                    | Marks.       |                                    | Marks.     |                                    |
| Metal workers, skilled.....                      | 2.77         | 60                                 | 3.37         | 73                                 | 3.12       | 67                                 |
| Metal workers, unskilled.....                    | 2.00         | 84                                 | 2.43         | 102                                | 2.25       | 95                                 |
| Building trades workers, skilled.....            | 4.57         | 88                                 | 5.56         | 107                                | 5.38       | 103                                |
| Building trades workers, unskilled.....          | 3.66         | 169                                | 4.46         | 206                                | 4.31       | 200                                |
| Compositors.....                                 | 1 40.40      | 142                                | 1 49.21      | 172                                | 1 47.60    | 166                                |
| Unskilled workers in printing establishments.... | 1 20.20      | 163                                | 1 24.61      | 198                                | 1 23.80    | 191                                |

<sup>1</sup> Weekly rates.

From the figures given it will be seen that the real wages covered by the table have been higher in May, 1923, than in pre-war times, with the exception of metal workers, whose money wage rates shown in the first table are minimum guaranteed time rates and do not take into consideration excess earnings through piecework. In the case of unskilled workers in printing establishments and unskilled workers in the building trades their real wage for May, 1923, was about twice as high as their pre-war wage.

[845]

## WOMAN AND CHILD LABOR.

### Hours, Wages, and Working Conditions for Women in Kentucky.

THE Women's Bureau of the Department of Labor has recently issued its Bulletin No. 29, giving a report on the hours, wages, and working conditions of women employed in Kentucky industries. The study on which it is based was undertaken in the fall of 1921 at the request of the governor of the State and of the Kentucky Federation of Women's Clubs. The survey, made during October and November of 1921, dealt with 151 establishments, including factories manufacturing various kinds of articles, general mercantile establishments, 5-and-10-cent stores, laundries, and telephone exchanges, situated in 17 towns and cities. Omitting girls under 16, of whom only 66 were found, it covered 10,101 women, of whom 78 per cent were found in manufacturing industries, 8.6 per cent in general mercantile establishments, 2.3 per cent in 5-and-10-cent stores, 5.2 per cent in laundries, and 5.9 per cent in telephone work. Of the total group of women, 12.6 per cent—1,280—were colored. The industrial distribution differed according to race. Among both white and colored, the largest proportion was found in manufacturing, and for both races tobacco factories employed the largest groups, 21.2 per cent of the white women and 87.7 per cent of the colored being thus employed. But while the white women were numerously employed in other manufacturing industries, their numbers running from 82 in furniture manufacture to 1,422 in the making of clothing, the colored women in manufacturing industries were scattered in small groups generally from one to eight in an industry, the only exception being found in the preparation of foods, which employed 30. Next to manufacturing, general mercantile establishments employed the largest number of white women, 855, after which came telephone exchanges with 591, laundries with 441, and 5-and-10-cent stores with 226. Among the colored women, laundries employed 81, while no other industry employed more than 11.

Practically all of the workers were native-born Americans, only 1.1 per cent of the 5,580 who reported as to their nativity being of foreign birth. The majority were young, 51.7 per cent being under 25. There is a difference in this respect between the races, 60.6 per cent of the colored against 35.7 per cent of the white women being 30 or over. This difference is explained on the grounds that there is a strong demand for young colored women in domestic and personal service, and that in the two industries in which colored women are employed at all numerously (laundries and the preparation of tobacco) there is a distinct tendency to take older women. Three-fifths of the white women and nearly three-tenths of the colored were single. Only 10.1 per cent of the white and 13.2 per cent of the colored women were living independently, all the rest being at home.

In taking up the conditions under which the women worked, attention is called to the fact that although 1921 was a year of abnormal depression, the time and method of making the survey renders it

probable that the results obtained are fairly representative. By October and November, in which months the pay-roll figures were taken, a number of plants were again operating on full time, and for each of the plants a week was selected "in which the women worked full time, without a holiday, and which was regarded by the management as fairly normal."

The Kentucky law permits for women a 10-hour day and a 60-hour week, and has no prohibition of night work, nor does it insist on one day's rest in seven. Of 9,469 women for whom the scheduled daily hours were obtained, the largest group, 29.1 per cent, worked 9 hours and the next largest, 26.4 per cent, had a 10-hour day; 15.7 per cent had a day of 9 but under 10 hours; practically the same per cent had a day of 8 hours or less; and 13.4 per cent worked 8 hours but under 9. In other words, practically seven-tenths of the women had a day of 9 hours or over. The manufacture of tobacco accounts for the largest number of those with a schedule day of 10 hours; next to it come the manufacture of cotton and woolen goods, and the preparation of food, these three industries employing 63.9 per cent of all having such a day.

In the cotton and woolen manufacturing establishments the 10-hour day was universal, while in the manufacture of food, paper boxes, furniture, wooden boxes, and candy, from 51.8 per cent to 70.7 per cent of the women employed had a 10-hour day. Mercantile establishments and 5-and-10-cent stores made the best showing in regard to hours, 78.5 per cent and 78.4 per cent, respectively, of the women employed by them having a scheduled day of 8 hours; 29.2 per cent of those engaged in clothing manufacturing and 22.6 per cent of those in miscellaneous manufacturing also had an 8-hour day, but in no other industry except in that of food manufacturing did as many as 10 per cent have such favorable hours. In the excepted industry one establishment with 41 women (10.7 per cent of all studied in this industry) had a day of less than 8 hours.

Turning to the scheduled weekly hours, the proportion of the 9,330 women reporting found in each group was as follows:

|                            | Per cent. |
|----------------------------|-----------|
| Under 48 hours.....        | 10.6      |
| 48 hours.....              | 11.3      |
| 48 and under 54 hours..... | 46.7      |
| 54 hours.....              | 2.5       |
| 54 and under 60 hours..... | 26.2      |
| 60 hours.....              | 2.7       |

From this it appears that not much over one-fifth of the group had a week falling within the 48 hours which has been taken as the desirable maximum, while about three-tenths had a week of 54 hours or over.

Comparing the different industries with respect to their record as to hours, the report reaches the following conclusions:

On the whole, when both daily and weekly hours are taken into account, general mercantile establishments and clothing and miscellaneous manufacturing have the best records. Five-and-10-cent stores make an admirable showing in the matter of the 8-hour day, but because of long Saturday hours fall noticeably below the standard for weekly hours. Also, although printing and publishing establishments had 100 per cent of the women scheduled for a 48-hour week, they still adhered to the 9-hour day. Metal shops occupied a middle ground, for although the 8-hour day was not found in any of them, neither was there a weekly schedule of more than 54 hours.

As a contrast to these industries were those with unnecessarily long hours. Cotton and woolen goods, paper and wooden boxes, candy, food, and furniture manufacturing,

in each case with more than one-half of the women working 10 hours a day and over 54 hours a week, fall most conspicuously below the standard. Cigar manufacturing, with one-third of its women employees scheduled for a 10-hour day and over three-fourths scheduled for more than a 54-hour week, is in almost the same category.

A study of the pay rolls showed that, for the week taken, of 7,426 white women, 41.8 per cent earned under \$10, 38.2 per cent earned \$10 but under \$15, 13.8 per cent earned \$15 but under \$20, and 6.2 per cent earned \$20 or over. Of 1,253 colored women, 69.7 per cent earned under \$10, 27.7 per cent earned \$10 but under \$15, and 2.6 per cent earned \$15 and over. The median earnings of the white women were \$10.75, of the negro women, \$8.35. By industries the medians ranged for white women from \$14.05 in the manufacture of metal products to \$7.50 in the manufacture of wooden boxes. For colored women there were only three industries in which the number employed was sufficient to compute a median, and in these, median earnings ranged from \$8.15 in laundries to \$9.05 in manufacture of food.

A comparison of median rates of wages with median earnings showed a considerable discrepancy between the two.

In all industries except general mercantile establishments and shoe factories earnings fell below rates. However, the majority of the industries reveal no more than a 6 per cent decrease in the median earnings as compared with the median rate. This decrease is traceable to lost time and slackened production. The cotton and woolen mills reveal by far the greatest discrepancy, since the median earnings are 26.9 per cent less than the median rate. It has been pointed out that all of the women in these mills worked less than the scheduled hours, the industry having been greatly crippled by the industrial depression.

For 667 white and 61 colored women the yearly earnings were learned, the women selected being "steady, experienced workers, who had worked with the firm for at least one year, and who had not been absent from their post for more than a few weeks in the year." The percentage receiving specified yearly earnings was as follows:

|                        | White. | Colored. |
|------------------------|--------|----------|
| Less than \$500.....   | 25.3   | 65.6     |
| Less than \$600.....   | 46.5   | 75.4     |
| Less than \$800.....   | 80.2   | 96.7     |
| Less than \$1,000..... | 93.9   | 100.0    |
| Less than \$1,200..... | 97.6   | .....    |
| Less than \$1,400..... | 99.3   | .....    |

For 4,657 white and 561 colored women the length of time in the trade was learned and correlated with their week's earnings. There seemed a good deal of stability about these groups, 30.8 per cent of the white and 54.4 per cent of the colored women having been in the trade in which they were found for five years and over, the period of employment running up to 20 years and over. For white women the median earnings show a steady increase with experience, rising from \$8.55 for those with less than six months' experience to \$15.45 for those with 20 years' experience and over. For colored women, the increase was irregular, and much smaller, rising from \$7.20 to only \$10.40.

The most significant revelation, however, is that white women with an experience record of 20 years and over show only an 80.7 per cent rise in median earnings over the median of the beginners in the industries. A practical interpretation of this fact would be the outlook of a typical worker, a 16-year-old girl, entering industry in Kentucky at \$8.55 a week. She could not expect even to double her initial salary, though



she worked steadily in one industry until she were 36 or 40 years old. At this time she would probably be at the peak of her earning capacity in that industry, receiving what might be termed a "bare living wage" \* \* \*. After a few years at the peak she would face a future of declining earning capacity with a penniless old age.

Hours and wages of the telephone operators were considered separately, since the nature of the work involves some complexities which make it difficult to include this material with that of other industries. In general, hours were fair, there being a decided trend toward the 8-hour day and the 48-hour week. A number of operators, however, worked 7 days every other week. The median earnings of 557 telephone employees for the week studied were \$14.85, "which is a higher median than that of any other industry included in the survey."

A study of the conditions under which the women worked showed much that needed improvement. Ventilation was inadequate in 32 establishments, lighting in 46, drinking facilities in 109, washing facilities in 132, and toilet facilities in 133. Special attention was paid to the arrangements for seating.

Seating inadequate in 87 establishments, 11 having no seats whatever for women, 43 others no seats for women with standing jobs, 65 an insufficient number of seats, and 46 the wrong kind of seats; that is, makeshift arrangements or stools and benches without backs.

First-aid service had been installed in 122 plants, and in all but eight of these some person was in charge to see that the aid provided was properly administered. In general, this service was prepared to deal only with very common and slight injuries, and in 41 the equipment was considered inadequate. Only one establishment had a plant physician, two had plant nurses, and four required physical examinations.

### Child Labor in Wisconsin.

THE Wisconsin Industrial Commission has recently issued a pamphlet giving certain data concerning the employment of children in Wisconsin for the 5-year period ending June 30, 1922. According to the Wisconsin law, no child under 17 may be lawfully employed without a permit issued by the industrial commission, and such permits may be issued only to children who either have finished the eighth grade or have attended school for at least nine years. There are no educational requirements for children who are 16 years of age. Proof of age must be submitted, and there are requirements concerning health and the character of work which may be undertaken. Permits are of two kinds: Those authorizing regular work and those for vacation, after-school, and Saturday employment. For the five years covered the number and kind of permits issued varied as follows:

NUMBER AND KIND OF WORK PERMITS ISSUED IN WISCONSIN, 1918 TO 1922.

| Year ending June 30— | Regular permits. | Vacation, after-school, and Saturday work. | Total. |
|----------------------|------------------|--|--------|
| 1918.....            | 21,681           | 9,309                                      | 30,990 |
| 1919.....            | 10,873           | 10,571                                     | 21,444 |
| 1920.....            | 12,188           | 13,145                                     | 25,333 |
| 1921.....            | 7,398            | 10,009                                     | 17,407 |
| 1922.....            | 4,741            | 5,690                                      | 10,431 |



The large number of permits issued in 1918 is explained on the ground that the permit age was increased to 17 years in September, 1917, while the number in 1920 was due to the labor shortage of that year, which led to the employment of minors wherever they could be utilized. It will be noticed that there has been a steady decrease in the proportion of permits for regular work and a corresponding increase in the percentage for holiday employment. The commission explains this change as due both to the industrial depression and to the higher educational requirements of the later years.

In general, more permits are issued to boys than to girls, and the relation between the sexes in this respect is fairly steady. The disparity is greater in the State as a whole than in Milwaukee, where knitting and candy industries employ large numbers of girls and women. For the State, exclusive of Milwaukee, the percentage which girls formed of the holders of permits ranged from 34.6 per cent in 1918 to 42.8 per cent in 1921, falling back to 39.9 per cent in 1922. It will be remembered that in the depression of 1921 it was said that women, being cheaper labor, were employed in many places in preference to men, so that the burden of unemployment was less for them. Apparently in Wisconsin the same situation existed as between boys and girls. In Milwaukee the percentage of girls is not only larger, but steadier, not once in the five years having fallen below 45 per cent, and ranging from 45.2 per cent in 1918 to 51.3 per cent in 1922.

One of the most effective instruments for enforcing the child labor law, the commission states, has been the treble compensation feature of the workmen's compensation law, in operation since September, 1917.

This amendment provides that if a minor of permit age is injured while employed without the required labor permit, or if a minor is injured while employed at prohibited work, such minor shall be entitled to three times as much compensation as would be recoverable had the law not been violated. The employer can not insure against extra compensation. He must pay the increased amount himself.

From September 1, 1917, up to December 31, 1921, there have been 369 cases of treble compensation for a total amount of \$78,552.58 increased compensation. The lowest amount paid in any one case was \$2.92; the highest amount paid was \$6,000; the average amount paid was \$215.59; the modal amount about \$14.

A study was made of the labor turnover among 7,873 boys and 7,486 girls working under regular permits which expired during the 5-year period ending May 1, 1921. In general, it was found that the turnover was not so high as had been expected, and that "boys averaged more jobs than girls, and held their jobs for a shorter period." This finding is of interest for its bearing on the question of wages for the job, regardless of the sex of the worker. Lower wages for girls are often justified on the ground of their greater instability. As they do not intend to remain in industry, it is said they take little interest in their work, give it up on trivial grounds, and tend to drift from job to job, while the boy, feeling that he is preparing for his life work, can be depended upon to stick. Apparently this state of affairs does not hold in Wisconsin; 87.4 per cent of the girls, against 80.3 per cent of the boys, had held from one to five jobs during the period, the remainder in each group having held from six up to ten and over, and 11.6 per cent of the jobs held by the girls, against 8.2 per cent of those held by the boys, had been retained for a year or over.

These comparisons are not wholly satisfactory because of the differing lengths of time for which the children might have been employed, but a further table shows the number of jobs held by boys and girls in Milwaukee correlated with the time during which they had been working under permit. A child may not lawfully begin work until 14 and is freed from permit requirements at 17, so that three years is the longest possible time for which he works under permit. In Milwaukee 384 of the boys and 379 of the girls studied had been at work practically three years (2 years, 11 months, up to 3 years). The percentage distribution of these according to the number of jobs held was as follows:

|                                     | Boys. | Girls. |
|-------------------------------------|-------|--------|
| 1 job only.....                     | 7.3   | 8.7    |
| 2 jobs.....                         | 12.2  | 16.1   |
| 3 jobs.....                         | 13.5  | 14.3   |
| 4 jobs.....                         | 11.5  | 14.0   |
| 5 jobs.....                         | 11.7  | 15.6   |
| 6, up to and including 14 jobs..... | 40.1  | 31.4   |
| Over 14.....                        | 3.6   | ....   |
| Total.....                          | 100.0 | 100.0  |

A brief summary is given of the apprenticeship work of the industrial commission, the salient points being as follows:

In the last three and one-half years, 1,486 indentures have been approved and 476 completed in more than 32 different trades. The average hourly wage rates have varied from 4 cents to 41 cents for the first six months, with only about four trades beginning at less than 15 cents an hour; and for the last six months the variation has been from 20 to 80 cents with only about four trades below 35 cents. The length of apprenticeship varies from one to five years, with the great majority of contracts made out for four years. \* \* \*

Some 300 employers are indenturing apprentices, and about 25 large firms make a practice of it without solicitation from the apprenticeship department of the industrial commission.

### A Study of Four Methods of Weight Carrying by Women.

THE annual report of the chief factory inspector of Great Britain for 1922 contains a description of an investigation into the comparative physiological cost of different methods of weight carrying by women, which was carried out under the direction of Professor Cathcart, of the University of Glasgow. The experimenters, both women, were one of the medical inspectors of factories, referred to as "subject H," and an investigator for the Industrial Fatigue Research Board, referred to as "subject B." The general plan was to collect the air expired by the experimenter while at work, measure it, and analyze a sample in duplicate. "From the results the carbon dioxide output and oxygen consumption at different times can be determined, and energy expenditure in calories can be calculated." The experimenters had had no training in weight carrying, and though both were in good health and accustomed to walking, "neither was athletic and the muscles of the arms and shoulders were poorly developed in both." The experiments consisted in taking up a load, ranging from 20 pounds upward, at one end of a "wide, well-lit, well-ventilated corridor, 50 yards in length, with a granolithic floor," carrying it to the other end, depositing it and returning to the starting point, carrying back the empty tray or

board, when one was used. This process was repeated steadily for an hour with each method and each weight, "save in a few cases where the load was so heavy and the method so unsatisfactory that the subject could only carry on with considerable distress." Weights of 20, 30, 40, 50, and 60 pounds were carried, and four methods were used:

1. The load was carried in a tray held in both hands.
2. The load was carried in a tray as in series 1, but the weight was taken off the arms by means of a webbing strap slung round the shoulders.
3. The load was divided evenly and carried, tied up in suitable form, in the two hands.
4. The load was distributed on a board and carried on the left shoulder.

The two experimenters differed in weight and height, a difference reflected to some extent in the amounts they could carry, and the method they found most comfortable. In general, they found that 55 pounds, the amount set by French law as the maximum for women to carry, "was about the limit, in the experiments now recorded, which the two untrained subjects found it possible to reach."

The physiological cost under each method is given with a degree of scientific detail which renders it rather unintelligible to the layman, but the general results are thus summed up:

For loads of 20 and 30 pounds there is conflicting evidence from the two subjects as to the relative values of the carrying methods. These anomalies are probably due largely to the amount of unconscious extraneous movement, allowed by the light loads, vitiating the exact measurement of work. It would seem that for loads of this order the method of carrying is a matter for personal choice and convenience, and since the weights are below what would generally be practicable in industry for adults, no stress need be laid on the early part of the curves. At 40 pounds it is clear that for both subjects methods 3 and 4 are more economical than carrying on a tray, either with or without the aid of a shoulder strap. At 50 pounds the shoulder carrying is markedly the cheapest for both subjects, for H series 3 gives the next lowest figure, but for B the tray with the shoulder strap (2) is cheaper than the divided load (3).

Some discussion is given of the general effect of weight carrying, and the best methods for actual use.

It is our opinion that no one method of carrying should be employed continuously week in and week out by the average woman worker when transporting weights of over 35 pounds \* \* \*. The fourth method of carrying, unlike the other three, is "one-sided." With a narrower board than is used, and a very light weight, no doubt the load could be supported with the body held erect; but this would be quite impracticable as a rule. \* \* \* We are of opinion that adolescents should not habitually carry in any way which would tend to cause a lateral curvature; permanent deformity of the spine and chest are readily caused in this way when growth has not ceased. With adults this danger of deformity is not nearly so great, but does, nevertheless, exist. When shoulder carrying is done to any extent by individual workers, we recommend that they should be trained to carry on the right and left shoulders alternately.

The method of loading, and laying down is, we believe, of great importance. In so far as it is possible, the unloading level should be about the same height from the ground as the shoulder of the carrier. It is during these processes that a sudden strain, such as might conceivably cause, for instance, uterine displacement, is most likely to occur. Once the load is adjusted as comfortably as may be, a sudden strain of this kind is not likely. One of us (H) had charge of a large number of women engaged in handling heavy munitions during the war and found that with very rare exceptions the only women who complained of uterine trouble attributable to weight carrying were women who had been inadequately treated after childbirth.

## LABOR AGREEMENTS, AWARDS, AND DECISIONS.

### Railroads—Decisions of the Railroad Labor Board.

#### Federated Shop Crafts.

TWO decisions were handed down by the United States Railroad Labor Board, June 29, 1923, in regard to the status of the Federated Shop Crafts after the strike of July 1, 1922. The first of these (Decision No. 1836) was entitled "Railway Employees' Department, A. F. of L. (Federated Shop Crafts) v. Minneapolis, St. Paul & Sault Ste. Marie Railway Co." and the second (Decision No. 1837) was entitled "Railway Employees' Department, A. F. of L. (Federated Shop Crafts) v. Hocking Valley Railway Co."

The basis facts in both cases were similar. Federated Shop Crafts, consisting entirely of employees of the individual railroads, had been organized on each road and each company dealt with them through committees selected by the employees. Members of the Federated Shop Crafts had joined with members of the regular shopmen on other roads, July 1, 1922, in leaving the service when the strike order was issued. Both roads refused to take back the strikers except as new employees, and later negotiated new agreements with them.

The question was stated in both cases in practically identical terms. In the first case (Decision No. 1836) it was as follows:

Was the agreement in effect between the Federated Shop Crafts and the Minneapolis, St. Paul & Sault Ste. Marie Railway Co. prior to July 1, 1922, legally and properly superseded by an agreement negotiated between the carrier and a committee representing the shop employees, effective January 1, 1923, known as agreement between the Minneapolis, St. Paul & Sault Ste. Marie Railway Co. and Soo Line Shop Employees' Association?

According to the evidence in the case the shop crafts and the company failed to reach an agreement in the spring of 1922 relative to certain rules, which were referred to the Railroad Labor Board for decision. The rules formulated by the board were incorporated with those formerly agreed upon by the parties, but the system organization refused to agree to the rules of the board and the strike of July 1, 1922, followed. The carrier recruited forces to fill the vacancies thus created.

October 21, 1922, the strikers accepted the proposal of the carrier, made through the chairmen of the brotherhood organizations acting as mediators, with the understanding that as jobs became vacant they should receive them, holding their relative seniority standing among themselves as of July 1, 1922, that they would be governed by "the wages and rules in effect as established by conferences with the management or by the decision of the United States Railroad Labor Board," and that 30 days would be allowed "in which to report for work after the day each employee is called or notified that his turn has arrived to return to work."

During July and August several employees, including new men as well as those who had remained in the service, requested the formation of a shop organization as suggested by the Railroad Labor Board July 3, 1922. October 18, ballots were circulated for the election of committeemen, and in order that those strikers who accepted the offer of the carrier to return to service might be allowed to participate in the balloting the polls were kept open until November 5. As a result of the balloting, in which upwards of two-thirds of those entitled to vote voted in favor of the formation of the Soo Line Shop Employees' Association, the new organization was formed. The carrier entered into negotiations with the committee elected and a new agreement, which is now being followed, was reached covering rules and working conditions, effective January 1, 1923.

Inasmuch as the former agreement with the Federated Shop Crafts, which was put into effect July 1, 1921, and which read: "It shall remain in effect until changed, subject to 30 days' notice in writing from either of the parties that desire to change it," had not been superseded or amended, certain employees took the position that it was recognized by the agreement of the carrier under which they returned to work October 21.

On December 8 and 15, 1922, while the management was negotiating with the so-called committee assuming to represent the shop employees, the representatives of these employees addressed a communication to the president and general manager of this carrier protesting the adoption of the so-called agreement because they had not been represented in any manner in the taking of the vote, and calling the carrier's attention to the proper method of voting as outlined in the board's decision No. 218.

The carrier states that it did not recognize the Federated Shop Crafts as an organization when it agreed to restore the striking employees to service, but, on the other hand, that it met the committee as a committee of employees, and at no time was it the understanding that the relationship between the carrier and the Federated Shop Crafts prior to July 1, 1922, would by such action be restored.

*Opinion.*—The Railroad Labor Board has taken careful cognizance of the positions taken by the respective parties to this dispute and the following factors form the basis of the board's conclusions in connection therewith:

The board has taken note of the fact that a schedule of rules was in effect between the parties hereto immediately prior to July 1, 1922, but certain of the rules were not accepted by the employees, but were being worked under by the employees under protest.

The board has further considered the fact that the shop employees comprising the six organizations of the Federated Shop Crafts notified the board that a large majority of the members of said organizations left the service of the carrier July 1, 1922, and were no longer employees of the railways under the jurisdiction of the Railroad Labor Board, on the strength of which advice the board adopted a resolution dated July 3, 1922, which is hereinbefore referred to.

The evidence shows conclusively that a large majority of the shop employees have indicated their desire to become affiliated with what is known as the "Soo Line Shop Employees' Association," on the basis of which request the carrier met a committee and duly conducted its negotiations, resulting in a complete agreement being reached relative to rules and working conditions. The position taken by the Federated Shop Crafts that this action on the part of the carrier violated the agreement in effect prior to July 1, 1922, is unfounded, as the organization by its own statement admitted that its members were no longer employees of the railroads, in view of which statement it is inconsistent to now say that the rules previously negotiated were not abrogated by the arbitrary action on the part of the employees in severing their connection with the carrier.

The employees lay considerable emphasis upon the fact that the carrier agreed to abide by the wage decisions of the Railroad Labor Board, as well as the rules agreed



upon in conference, prior to July 1, 1922, it being contended that such concession automatically restored the previous relationship between the parties hereto. No evidence was submitted which would justify this claim on the part of the employees. Neither is there in the files any evidence that would indicate that the carrier has ever considered that it has negotiated with the Federated Shop Crafts since July 1, 1922, as such, nor is it indicated that the carrier in agreeing to return the striking employees to service as vacancies occur, stated or agreed that such an arrangement would have the effect of restoring the agreement alleged to have been in effect with the Federated Shop Crafts prior to July 1, 1922.

*Decision.*—The Railroad Labor Board decides that the Federated Shop Crafts by their action in arbitrarily suspending work on July 1, 1922, withdrew from all previous agreements or understandings relative to rules and working conditions agreed to between it and the management of the Minneapolis, St. Paul & Sault Ste. Marie Railway Co. and thus abrogated said previous agreements in so far as they applied to said employees. Further, that no agreement or understanding has been reached between these parties relative to the restoration of agreements or understanding in effect prior to July 1, 1922, and that therefore the agreement subsequently negotiated with the "Soo Line Shop Employees' Association" did not violate any rule or understanding between the parties to this dispute.

The agreement which has been duly negotiated between the carrier and the "Soo Line Shop Employees' Association" shall be considered in full force and effect, and so continued until changed in conformity with the provisions thereof and the Transportation Act, 1920.

A long dissenting opinion was filed in the case, objecting to the decision of the majority that the agreement in effect July 1, 1921, had been temporarily superseded by the agreement with the association, asserting that it was in effect at the time of the strike, July 1, 1922; that it was observed by the carrier after the strikers returned October 24 until the adoption of the agreement January 1, 1923; that the men in returning understood that the rules in effect July 1 automatically continued in effect; that the company agreed to "recognize and deal with the various and designated representatives of the men returning to work in the same manner that they have in the past." It was also asserted that according to the evidence the closing of the ballot box 10 days after the agreement was reached "and long before it was possible for the men to be returned to the service" was a breach of faith as it "precluded the possibility of a major portion of the employees parties to the settlement participating in the vote then taken"; that the carrier placed this "agreement in effect as of January 1, 1923, in violation of the terms of the agreement entered into on October 21, 1922, with the Federated Shop Crafts and contrary to the procedure set forth in the board's decision No. 218, a decision and procedure which the Supreme Court of the United States has sustained," and that the old agreement was still in effect for those employees who were members of the old system federation and had objected to entering the new association, for it had never been abrogated.

The opinion of the minority concludes as follows:

The decision promulgated by the majority sets aside an agreement duly entered into by and between this carrier and the Federated Shop Crafts—the agreement simply provided for the return to service of the striking employees under certain conditions, including the continuation of the working rules and rates of pay which had been established by decisions of the board—and substitutes in lieu thereof a so-called agreement brought into existence as a result of negotiations conducted with a committee of employees selected at the instigation of the carrier, most of whom were destined to leave the service as a result of the return of the strikers. The fact that the men went on strike has no relation to the present issue. The strike was settled by agreement between the carrier and representatives of the striking employees, and the question that was before the board only related to subsequent negotiations and agreements.



The representatives of the Federated Shop Crafts only ask that the terms of the settlement, the provisions of the agreement, and the rules of procedure promulgated by the board (as to who represents a majority of each craft or class, if such dispute exists), be observed.

As the board has denied these requests—and for all practical purposes the board represents a court of last appeal—the Federated Shop Crafts, which claim to represent a majority of the employees directly affected and who have had their agreement abrogated by this decision, is now compelled to start proceedings that will create a new dispute or else take matters in their own hands at the risk of being branded as “outlaws.” The undersigned believes the latter course would be unwise under existing circumstances and conditions.

The facts in the Hocking Valley Railway Co. case were somewhat similar. Through the efforts of representatives of the transportation employees the shop strikers returned to work after November 23, 1922, on terms similar to those stated in the Soo case, except that men were to report within 15 instead of 30 days from time of call.

The new employees and those who had not joined in the strike formed an association in accordance with the board's suggestion of July 3. In order to remove the “uncertainty as to the employees' representative with whom the management may confer in matters of mutual interest,” the carrier, on December 4, directed that a new election be held; to this no objection was raised by the Federated Shop Crafts until January 31. The election on December 9, 1922, showed a majority of the crafts favoring the Hocking Valley Railway Shop Employees' Association, with which the carrier negotiated and formed rules effective December 20, 1922.

The Federated Shop Crafts, asserting that this action was in violation of the agreement negotiated by them with the carrier and in effect prior and subsequent to July 1, 1922, conducted an election January 31, 1923, in which 515 out of a total of 541 voting favored the old system federation. Requests of the crafts for a conference with the general manager of the railroad were met by a refusal March 14, 1923. The opinion of the Railroad Labor Board was similar to that as stated in the Soo case above. The decision reads as follows:

*Decision.*—The Railroad Labor Board decides that the Federated Shop Crafts by their action in voluntarily suspending work on July 1, 1922, withdrew from all previous agreements or understandings relative to rules and working conditions agreed to between it and the management of the Hocking Valley Railway Co. and thus abrogated said previous agreements in so far as they applied to said employees; further, that the agreement of November 22, 1922, did not restore the agreement between the Federated Shop Crafts and the carrier but continued in effect, as had been directed by the Railroad Labor Board, the wages and working conditions promulgated in its decisions.

The agreement which has been duly negotiated between the carrier and the Hocking Valley Shop Employees' Association shall be considered in full force and effect, and so continued until changed in conformity with the provisions thereof and the Transportation Act, 1920.

The minority filed a long dissenting opinion, from which the following paragraphs are taken relative to the election held December 9:

In this connection it will be noted that the carrier violated the decisions of the Railroad Labor Board as well as the terms of settlement:

- (1) No conference was held with the representatives of the Federated Shop Crafts;
- (2) The carrier did not serve the 30-day notice required by decision No. 222 and its addenda, as to desire to change the rules of the existing agreement; and
- (3) By arrogating to itself the authority to investigate and assume full control of an election to determine who should represent the shop employees.

The evidence shows that out of approximately 900 shop employees, about 300 had been returned to service at the time the so-called election took place; the evidence further shows that the members of the Federated Shop Crafts did not participate in this so-called election held December 9, 1922, because they had not been consulted and because they knew that the carrier had not complied with the terms of the agreement in effect or the decisions of the board.

The minority closed with the statement that the majority "had, in its opinion, disregarded the rights guaranteed to railroad labor by the provisions of the Transportation Act, 1920," in relation to—

(1) The right of railroad employees to organize for lawful objects without interference or obstruction on the part of railroad management;

(2) The right of railroad employees to select representatives of their own choice, free from any coercive influence, dictation, or domination by railroad management; and

(3) A carrier, disregarding the solemn obligation of contracts duly entered into with representatives of the employees, may arrogate unto itself the authority to set aside such contracts, and take charge of and conduct elections of any craft or class of its employees, with the object in view of destroying an organization which the employees have voluntarily created and in which they have invested their time, money, and intelligence to perfect, in order that they may maintain a channel by and through which they may negotiate agreements concerning the conditions under which they will dispose of their skill and labor.

### Carpenters—Pittsburgh.

THE Carpenters' District Council of Pittsburgh has negotiated a contract with the Master Builders' Association of Allegheny County differing in several particulars from the agreement that expired March 1, 1923.

The more important features are here reproduced:

This agreement made this 1st day of March, 1923, by and between the Master Builders' Association of Allegheny County, a corporation, party of the first part, and the Carpenters District Council of Pittsburgh and Vicinity, party of the second part, for the purpose of preventing strikes and lockouts, and facilitating a peaceful adjustment of all grievances, disputes, and differences of opinion which may from time to time arise between the parties hereto, and for the purpose of preventing other waste and unnecessary and avoidable expense, annoyance or delays, making building costs as low, stable, and certain as possible, consistent with fair wage rates, for the advancement of labor and management in skill and productivity.

#### ARTICLE I. *Principles upon which this agreement is based.*

SECTION 1. Both parties hereto this day hereby adopt the following principles as an absolute basis for their joint agreement and working rules, said principles to govern the joint arbitration board hereinafter provided for in all matters which may come before said board.

1. There shall be no limitation as to the amount of work a man shall perform during his working-day.

2. There shall be no restriction of the use of any machinery or tools, when furnished by the employer.

3. There shall be no restriction of the use of any raw or manufactured material except prison made.

4. No person shall have the right to interfere with workmen during working hours.

5. The use of apprentices shall be encouraged.

6. The foreman shall be selected by and be the agent of the employer and shall see that this agreement is carried out in full.

7. Workmen shall be at liberty to work for whomsoever they see fit, but they shall demand and receive the wages agreed upon by both parties hereto.

8. Employers are at liberty to employ and discharge whomsoever they see fit.

ARTICLE II. *Arbitration board.*

SECTION 1. Both parties hereto agree that they will elect an arbitration committee to serve for one year or until their successors are elected and qualified.

SEC. 2. The arbitration committee for each of the parties hereto shall consist of five members actively identified with the trade and they shall meet within 10 days after the signing of the agreement and organize a joint arbitration board by electing a president, secretary, and treasurer. They shall also select an umpire who shall be in no wise affiliated or identified with the building industry and not an employee or employer.

SEC. 3. The joint arbitration board shall have full power to enforce this agreement. No strikes or lockouts shall be resorted to and work shall continue pending the decision of the joint arbitration board.

ARTICLE III. *Jurisdictional disputes.*

SECTION 1. Should a jurisdictional dispute arise the party of the second part shall not cease work without first notifying the party of the first part of such intention and in no event shall work cease within two weeks after the receipt of said notice.

SEC. 2. In case of a jurisdictional dispute between any other body of employers and employees the party of the second part under no circumstances shall remove their members from any work, notwithstanding anything contained herein to the contrary.

SEC. 3. The party of the second part also agrees that they will not enter into any sympathetic strike or remove their men for any cause except where nonunion men are employed.

ARTICLE IV. *Working hours.*

SECTION 1. Eight hours shall constitute a day's work, excepting on Saturday when work shall stop at 12 o'clock noon.

ARTICLE V. *Wage rate.*

SECTION 1. Journeymen members of the party of the second part shall be paid a rate of \$1.20 per hour during the life of this agreement.

SEC. 3. Time and one-half time shall be paid for the first two hours of overtime beyond the regular working hours, double time shall be paid thereafter.

Double time shall be paid for overtime from Saturday noon to 8.00 a. m. Monday and the following holidays: Decoration Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas. Such work should only be done for the protection of life or property and a permit must be secured therefor.

ARTICLE VIII. *Scarcity of help.*

The party of the first part agrees to employ only members of the party of the second part. Should party of the second part be unable to furnish the required number of mechanics then the party of the first part may employ whomsoever he wishes until such time as the party of the second part supplies men to take their places.

ARTICLE X. *Unaffiliated contractors.*

Any contractor not affiliated with the Master Builders' Association of Allegheny County may assume the benefits herein contained by joining the association.

ARTICLE XII. *Termination of agreement.*

SECTION 1. This agreement shall be binding on both parties from March 1, 1923, until March 1, 1924. Should either party to this agreement desire to terminate the same on said date, notice in writing shall be given prior to December 1, 1923.

SEC. 2. Should either party make a request that this agreement be terminated on February 28, 1924, they pledge themselves to hold a conference meeting within 30 days of the time request is made.

## Coal Mining—Anthracite.

THE suspension of work by the anthracite miners on the 1st of September, 1923, following the expiration of the agreement made a year ago, after the suspension of April 1, 1922, ended with the new agreement ratified September 17, 1923, which reads as follows:

The terms and provisions of the award of the Anthracite Coal Strike Commission and subsequent agreements made in modification thereof or supplemental thereto, as well as the rulings and decisions of the board of conciliation, are hereby ratified, confirmed, and continued for a further period of two years, ending August 31, 1925, except in the following particulars, to wit:

1. The contract rates at each colliery shall be increased 10 per cent over and above the rates established under the award of the United States Anthracite Coal Commission in 1920.

2. The hourly, daily, or monthly rates of outside and inside company men, working on the basis of an 8-hour day, shall be increased 10 per cent over and above the rates established under the award of the United States Anthracite Coal Commission in 1920.

3. The hourly, daily, or monthly rates of pump men and engineers formerly working a 12-hour cross shift and changed to an 8-hour basis under the award of the United States Anthracite Coal Commission in 1920, shall be increased to 10 per cent over and above the rates established by the board of conciliation in conformity with said award.

4. The hourly or daily rates of consideration miners and consideration miners' laborers shall be increased 10 per cent over and above the rates established under the award of the United States Anthracite Coal Commission in 1920.

5. The rates paid contract miners' laborers shall be increased 10 per cent over and above the rates established under the award of the United States Anthracite Coal Commission in 1920, said increase to be paid by the operator and miner by adding 10 per cent to the portion of the rate now assumed by each.

6. Outside and inside company men working on the basis of a day in excess of 10 hours, shall be placed on the basis of an 8-hour day. The rate of pay for an 8-hour day shall be adjusted in the same manner as rates were adjusted for hoisting engineers and pump men, who were changed from a 12-hour day to an 8-hour day in 1920, subject to the same increase of 10 per cent provided for other men under clause 2 hereof.

7. Outside and inside company men working on the basis of a 9 or 10 hour day shall be placed on the basis of an 8-hour day. The rates of pay for the 8-hour day shall be the rates for the 9 or 10 hour day paid under the agreement of 1916, plus \$1.80 per day for outside employees and \$2 per day for inside employees, plus 17 per cent, and subject to the same increase of 10 per cent provided for other company men under clause 2 hereof.

8. Monthly men coming under the agreement of September 2, 1920, and working on a basis in excess of 8 hours per day shall be placed on the basis of an 8-hour day. The monthly rates for the 8-hour basis shall be the monthly rates paid under the agreement of May 5, 1916, plus \$54 per calendar month for outside employees and \$60 per calendar month for inside employees, plus 17 per cent, except where modified by ruling of the board of conciliation and subject to the same increase of 10 per cent provided for other company men under clause 2 hereof.

9. The colliery rate sheets of the different collieries shall be brought up to date; shall be signed by the company officials and the mine committees; and shall then be filed with the board of conciliation. In case of dispute as to the correctness of any rate, the rate shall be determined by the board after hearing. In such cases the burden of proof shall rest with the party taking exception to the filed rate.

10. A grievance referred to the board of conciliation shall be answered within 15 days and shall be heard within 30 days from date of filing with the board. Decision shall be rendered by the board or the case shall be referred to an umpire within 30 days after hearing. In case of reference to an umpire, the decision of said umpire shall be rendered within 30 days from date of reference.

11. Rates for new work, such as opening a seam of coal, shall be made collectively as between the mine committee and company officials on the basis of the standard recognized rates paid for similar work under similar conditions in the mine in question or adjacent mines. In case of disagreement the matter shall be adjusted through the

board of conciliation in the manner now customary. Pending decision by the board work shall proceed at rates set by the foreman and shall not be less than the standard recognized rates aforesaid.

No contracts shall be made with individual employees at less than the prescribed scale rates or not in keeping with customary practices. This section shall not be construed to deny to the operator the right to change the method of mining.

12. The board of conciliation is hereby authorized to undertake and complete a thorough study of all wage scales before the expiration of this contract and submit the same to the next joint conference. If the board of conciliation shall, by unanimous vote, recommend the adjustment of any inequities in wage rates during such study, the adjustment shall take effect on a date set by the board.

### Coal Miners—West Virginia.

THE Coal River Collieries, controlled by the Brotherhood of Locomotive Engineers, entered into an agreement with District 17 of the United Mine Workers of America, July 6, 1923, to modify two sections of the general agreement made between the operators of the Kanawha District, the modification to cover such seams of coal as the company may operate in the district.

The following is substituted for section 7 of the agreement:

First. All machine loaders shall be awarded working places so far as possible to permit men to work 8 hours and the men to work as "buddies," so that it will give an opportunity to machine cutters and loaders to work with the least possible loss in time. The company agrees as development takes place to so arrange the working places for the loaders as to give maximum working time to the loaders and maximum tonnage to the company to the best of their ability. In the event of territory becoming scarce from a squeeze or striking a horse-back or any other unavoidable obstacle, this shall not be construed so as to diminish the output of the mine.

Section 25(a) is amended to read as follows:

Second. In case of any local trouble arising at any mine operated by this company in the Kanawha District, the aggrieved party shall first make an earnest effort to adjust the dispute with the mine foreman. In case they are unable to agree, the matter shall be referred to the mine committee and the superintendent of the mine. If they fail to agree, it shall be referred to the district president and the president of the company. As a final tribunal, all questions failing of settlement shall be submitted to the president of the International Union, United Mine Workers of America, and Grand Chief Stone of the Brotherhood of Locomotive Engineers, or their personal representatives, and their decision shall be final and binding upon both parties. In all such cases, all parties involved must continue at work pending an investigation and readjustment as above set forth.

A third paragraph is added thus:

Third. It is agreed by both parties hereto that prior to the expiration of this contract, a conference shall be arranged for the purpose of negotiating a new contract for the period beginning April 1, 1924, with an effort to provide for continuous operation of the mines without loss of time.

### Laundry Workers—Brockton, Mass.

LAUNDRY Workers' Union, No. 64, of Brockton, Mass., signed an agreement with the employers to take effect June 1, 1923. The scale of wages, representing an increase of  $7\frac{1}{2}$  per cent over that of the year before, was an award made by the State board of arbitration and conciliation June 19, 1923. The following clauses are of interest:

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ARTICLE I. Forty-eight hours shall constitute a week's work, with 50 hours' pay.

ART. III. All members of Local Union No. 64 shall work only half a day on Saturday.

ART. V. The holidays recognized in this agreement are all legal holidays. Holiday work to be paid for at the rate of double time, and under no circumstances shall a member be compelled to work Labor Day.

ART. VI. Employers agree to give preference when hiring help to members of Local No. 64 in good standing. When in need of employees, employers are to notify the business agent. If he is unable to supply persons who are satisfactory to the employers, employers may hire persons who are not members of Local No. 64, provided such persons become members of the local union at the next regular meeting.

ART. VII. No member of Local No. 64 working on a job shall be allowed to hire or discharge help.

ART. X. In holiday weeks no work to and including 45 hours shall be considered overtime. All work in excess of 45 hours in holiday weeks shall be considered as overtime, and paid for at the rate of double time. No more than 9 hours shall be worked on Mondays in holiday weeks.

ART. XI. Should either party desire to alter or amend this agreement, they shall give 60 days' notice in writing and submit a copy of all proposed changes. Should the parties fail to agree on prices and conditions, the matter in dispute shall be submitted to the State Board of Conciliation and Arbitration, whose decision shall be final under the law.

### Men's Clothing Industry—Chicago.

THE board of arbitration in the men's clothing industry of Chicago, July 24, 1923, handed down a decision (Case No. 2, new series) in regard to apprentices in the cutting rooms.

It appears that the board, February 5, 1920, had issued a decision expressing the opinion that a ratio of 1 apprentice to 10 journeymen is a proper ratio in normal times and authorizing the employment of a larger number under certain conditions in abnormally busy times, and on December 12, 1922, had ruled that no new apprentices be employed, as business conditions did not warrant increasing the supply of cutters in the market.

A petition to the board had been filed in behalf of the clothing manufacturers asking that the number of apprentices be increased, in view of the fact that business conditions had greatly improved, resulting in a shortage of cutters and an abnormally large amount of overtime work. The petition further stated that the temporary cutters sent by the union to fill requisitions were an added cost rather than a relief, on account of their low production, and that for a year or more the permanent cutters had suffered practically no unemployment whatever.

On the other hand, the union contended that for two years preceding the present resumption of business the cutters had had almost continuous unemployment; that there was no shortage of cutters in the market at present because men who had dropped out of the industry in 1920 and 1921 were coming back; that the number of cutters now in the market was greater than it was in the peak of business during 1919-20, whereas the manufacturers did not now have as much business as they had during that period; and that the system of temporary release, in which men who were transferred from firms in which business was slack to others which were busy, enabled manufacturers to get all the help that was really necessary, except perhaps for a week or two at the height of the season.



The following excerpts from the decision of Dr. William H. Leiserson, chairman of the board of arbitration, show how these contending claims were harmonized:

When the board, by its decision in December, 1922, prevented additional apprentices from being employed, it must be presumed that the board felt that the agreement gave it power to restrict the number of apprentices in bad times, just as it authorized increasing the number of apprentices in an unusually busy time.

If the conditions this season are the same as they were in 1922, the board would have to rule exactly as that decision ruled. If, however, the conditions are now different, then a different decision is justified.

In order to decide the case, therefore, it is necessary to inquire into the facts of the situation at present. Is there a need for increasing the supply of cutters at the present time? Are the business conditions normal?

That the current season has been one of expanding business, on the whole, can hardly be questioned. But whether this expansion has reached the point where the normal capacity of the cutting rooms is to be kept fully employed during the season is still doubtful. Adding apprentices now would mean to increase the cutting force a year and two years from now. And conditions at present are still too unsettled for anyone to be able to tell whether the level of employment reached this season is likely to be maintained a year or two hence.

In the opinion of the board the evidence presented in the present case does prove that there has been an undue amount of overtime worked this season and that a good many houses suffered from a shortage of help. If about the same amount of business is to be booked next season and this level maintained, then the number of apprentices will have to be increased to get enough cutters to keep up that level. It has been impossible from the figures presented to the board to determine with any degree of accuracy the exact number of cutters available in the market to meet the demand that the quantity of business required this season, and this difficulty is increased because of the presence of a large number of temporary cutters who are not responsible for standards, and whose production in many cases is far below the normal. Approximately there are 2,200 cutters in the market now, and this number is substantially about the same as the board found in December, 1922, when it was 2 per cent above the number in March, 1920. The number of apprentices now is only about 30. There has also been a shifting of the cutters, so that the ready-made houses have increased the number of their cutters, while in the special order houses, taken as a whole, there has been a decrease from the spring of 1920 to the present time.

Considering all the available information, the board is convinced that some increase in the force of cutters is necessary at the present time, but not more than 5 per cent, which would be the number of apprentices that would be added in any one year under normal conditions if the ratio were 10 per cent. This increase is needed, not so much for the current season, as for the approaching season. If the business during the coming season should maintain the level of the present season then the additional cutters will be needed. But already some houses are beginning to lay off cutters earlier than it was expected that the lay offs would come this season, and the outlook for the coming season is still too uncertain for anyone to know whether business conditions have settled down to normal, which would require the regular yearly addition of apprentices.

The board, therefore, hesitates to increase the force of cutters at this time by bringing new people into the industry. The board is of the opinion, however, that real relief for the coming season can be secured from within the industry by using trimmers as apprentices, whereas new boys now hired would be of little value in the coming season, but would afford relief only a year and two years hence, and we do not know whether they will be needed at that time.

Ready-made houses are hereby authorized to increase their cutting forces by promoting trimmers to the cutting department, but the total number of trimmers thus apprenticed as cutters must not exceed 5 per cent of the regular cutting force.

The special-order houses have indicated to the board that they desire to add a total of 49 apprentices in their cutting rooms, which is just about 10 per cent of the total number of cutters employed. For the reasons stated above, the board is of the opinion that this number is not justified at the present time, and that not more than 5 per cent, or about 25 for the list of houses submitted to the board, can be allowed. With respect to these special-order houses, too, however, the immediate relief required for the approaching season can be better secured by using trimmers from within the industry rather than by bringing new people into the industry who will become valuable only a year and two years later. The 25 apprentices, therefore, should be secured by promoting trimmers the same as in the case of the ready-made houses.

Objection has been raised by the labor managers that this can not be done in the special-order houses, as in the ready-made houses, because there is no surplus of trimmers within the special-order houses available for promotion. The board knows of one such house, however, which presented evidence in a recent case proving that it had more trimmers than are needed in proportion to its cutters, and this house might well relieve its oversupply of trimmers and its shortage of cutters by promoting one of the trimmers to do the cutting. Perhaps similar situations exist in other houses. Where, however, it is not possible to promote a trimmer from within the house, an arrangement can be made to get some unemployed trimmer from within the industry to be apprenticed as a cutter.

The general labor manager for the special-order houses and the representative of the union are hereby instructed to take up the requests for apprentices made by each of these houses, and to arrange for putting on about 5 per cent apprentices from among trimmers within the industry, in accordance with this decision.

The board desires it to be clearly understood that the transfer of trimmers to become apprentice cutters up to the number indicated in this decision is all that is required by present conditions, and will provide the most immediate form of relief to those houses which suffered some shortage of cutters at the height of the season and had an excessive amount of overtime. The adding of new apprentices from outside the industry is not justified as yet because business conditions are still too unsettled to know whether they will be needed a year or two ahead. If during the coming season it appears that added relief is needed, the employers can of course apply again to the board; and whenever the board finds business conditions stabilized so that a normal ratio of apprentices to journeymen cutters can be maintained, then such a ratio will be fixed.

### Street Railways—Massachusetts.

BY AGREEMENT between the board of trustees of the Eastern Massachusetts Street Railway Co. (operating cars in various cities and towns in Massachusetts, from Nashua, N. H., to Providence, R. I.) and the Amalgamated Association of Street & Electric Railway Employees of America (Divisions 174, 235, 238, 240, 243, 246, 249, 253, 261, 270, 280, 373, 475, 503, and 551), the questions "What shall be the basic rates of wages in effect during the year from May 2, 1923, to May 1, 1924, inclusive," and "What differential above the rates of wages for conductors and motormen shall be paid to men while operating one-man cars," were, prior to June 27, 1923, referred to a board of arbitration, their decision to be accepted as final and binding on both parties.

For eight years the maximum wages of the employees have been fixed as follows: June 1, 1915, by the Pelletier arbitration, 30 cents per hour; October 1, 1916, 32 cents; May 2, 1917, 33 cents; February, 1918, 35 cents; May 2, 1918, 35½ cents; June, 1918, 40½ cents; October 22, 1918, by the War Labor Board, 45 cents; June 19, 1919, by the same board, 51 cents; July, 1920, by the Ogden arbitration, 62 cents; 1921, by State board of arbitration and conciliation, reduction of 12½ per cent, which rate was continued by agreement between the company and its employees in 1922. Previous to October, 1918, the maximum rates were granted only after six years of service; since that date, after the first year. Since 1918 the changes in rates have been based to a large extent upon changes in the cost of living.

The men felt that they were entitled to a readjustment of wages based on (1) changes in the cost of living, (2) pay for service of a like character in the same industry and in comparable industries, and (3) what is necessary to support a family. They also contended that there had been a general trend upward in the payment of wages and that wholesale prices had advanced, which was bound to be reflected in the cost of living.

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The trustees contended that no increase in compensation was warranted because the percentage of increase in the Ogden award was larger than the percentage of increase in the cost of living and the reduction in 1921 was less than the corresponding decrease in the cost of living; that since 1921 there had been a decrease in the cost of living of 6 per cent; that the value of the pension and group insurance system recently established should be considered in determining the award; and that any material increase in wages would result in an increase of fares. The views of the neutral arbitrator, Henry C. Attwill, chairman of the Department of Public Utilities of the Commonwealth of Massachusetts, in regard to these various contentions, appear in the following excerpts from his opinion:

If the award were to be based on the increased cost in living since 1914, as determined by the United States Bureau of Labor Statistics, it would result in a reduction in the wages of some 3 cents an hour. However, the men contend that the cost of living increased from 1900 to 1914 much more rapidly than the wages, and if the testimony of Dr. Irving Fisher, of Yale College, in the Pelletier arbitration as to the increase of wages during this period be taken as correct, the award made by the Pelletier arbitration was some 5½ cents below what the wages would have been if measured by the yardstick of the increased cost of living, and thus the men are entitled to an increase in wages based solely upon the increased cost of living since 1900. Moreover, they contend, as I understand it, that as they were receiving less than increased cost of living warranted between the years 1900 and 1914, and as the fixation of their wages from 1914 to 1919 always lagged behind the increased cost of living, this should be taken into account and a wage should now be fixed which would allow them to recoup in some measure the loss they then suffered. They further contend that as the cost of living as determined by the United States Bureau of Labor Statistics is based upon the bare necessities of living, and takes into consideration no change in the standard of living, an allowance should be made for that.

It was argued very forcibly on behalf of the men that the arbitrators should not take into consideration the financial condition of the company or the conditions under which it is operating or is likely to operate, but should determine, without regard to its effect upon the company or the transportation facilities to be furnished by it, what was a fair and reasonable wage to be paid according to the American standard of living. It is very difficult to determine what is a just wage for any service performed, and if we attempt to fix the fair and just wage in the abstract, without any consideration of the industry involved, or the conditions which it is obliged to meet, or a consideration of the pay obtained for similar services in the vicinity where the wage is to be paid, we get nowhere and an award becomes but the expression of an opinion of an arbitrator as to what is just, based upon nothing except his views as to what a man in the occupation should have to support himself and his family.

So long as efficiency is maintained and no serious impairment of our economic structure results, I agree with the thought that it is desirable for society that we make the purchasing power of the worker as high as we can, to the end that he and his family may have the opportunity of sharing equally as may be in the production of the country and of enjoying such happiness, comfort, and contentment as may be derived therefrom. But in applying our theories we find ourselves controlled by conditions that we can not overcome. We can only approach our ideals by the most painstaking steps.

Thus it seems to me that in fixing wages, judged solely from the standpoint of the employee, we must ordinarily take into consideration the interest of the industry in which he is employed, as his interest may be inevitably interwoven in its interest. To fix a wage which I might think he ought to have in order that he and his family may enjoy what I conceive to be the American standard of living and thereby destroy the industry in which he is employed would be folly. It is no answer to say that if the industry were destroyed he could obtain employment in some other industry at as high if not higher wages as he has that choice now. To destroy the industry simply deprives him of a choice. Nor is it an answer to say that if the Eastern Massachusetts Street Railway Co. were obliged to suspend operation another form of transportation would take its place and the men could get employment in that at the same or at a better wage. By far the greater number of uniformed men have worked for the company for more than 15 years; many of them are in advanced years of life. It by no means follows that if motor busses should take the place of the street cars

the men would get employment in the operation of the busses, or if they could that their wages would be higher than those they are now receiving.

Therefore, in coming to my decision as to what should be awarded I feel that I must take into consideration, for the interests of the men themselves, the financial condition of the company and the probability of its being able to meet any increase in compensation without serious injury or disaster to the company itself. We can not assume that the money necessary to meet any increase in pay can be readily obtained from the public. Experience has shown that there is such a thing as a law of diminishing return—that is, that the fare may be placed so high as to produce less income.

It is urged by the employees that their compensation should be placed upon a relative basis with that of the employees of the Boston Elevated Railway Co. I have no doubt that many of the men employed by the Eastern Massachusetts Street Railway Co. work as hard if not harder than the men employed by the Boston Elevated Railway Co. Nevertheless, I am unable to adopt the suggestion made by the employees.

The difference in the situation of the two companies must be taken into account in the consideration of the wages paid by the Boston Elevated Railway Co. as contrasted with the wages paid by the Eastern Massachusetts Railway Co. Undoubtedly the fact that the treasury of the Commonwealth stands behind the financial integrity of the Boston Elevated Railway Co. is reflected in the difference in compensation heretofore paid to their employees. In the one instance if the compensation were made higher than the traffic would bear the deficit would be made up by taxes assessed in the communities in which the company operates, while in the other, if long continued, a deficit would result in the company ceasing to operate. Again, the Boston Elevated Railway Co. is less likely to be affected by the competition of motor vehicles. In large part it furnishes rapid transit by means of subways and elevated structures which, with the growing congestion in the highways, can not successfully be furnished by motor vehicles. Its gross revenue since its operation by the public trustees has steadily increased. The Eastern Massachusetts Street Railway, on the other hand, operates in less densely settled territory, has no elevated structures, and operates in no subways other than the subway from the North Station to Scollay Square by arrangement with the Boston Elevated Railway Co. The gross annual revenue of the Eastern Massachusetts Street Railway Co. has steadily decreased, rather than increased. These factors can not be overlooked in the fixation of wages, and it is apparent to me that the compensation paid to the employees on the Boston Elevated Railway Co. system can not be used as a safe criterion as to what can or should be paid to the employees of the Eastern Massachusetts Street Railway Co.

It is urged by the employees that no consideration should be given to the interests of the stockholders in the fixation of wages. Assuming this to be true, we must give consideration to the credit of the company, as no public utility can hope to long succeed and furnish the service required for the public unless it is able to secure new capital to meet its capital expenditures. If the street railway is to continue and serve the public efficiently, undoubtedly it will be called upon from time to time to make permanent improvements to keep abreast of the times. We can not expect such improvements to be met solely from the earnings of the company. New capital will be required. Such new capital can not be obtained unless the conditions are such as to attract it.

I have given careful consideration to the arguments advanced on behalf of the company. I do not think that I should be bound by the yardstick of the increased cost of living as determined by a Government board. Undoubtedly it should be given consideration, and it is helpful in the determination of the questions submitted, but if wages of the employees are to be measured solely by that, there is no occasion for the arbitration. The argument advanced that any increase in compensation will result in the failure of the company to meet its cost of service, is entitled to grave consideration but ought not to be decisive.

Notwithstanding the desirability of making the service-at-cost plan called for in St. 1918, c. 188, a success, the public ought not, in my judgment, to expect to enjoy the transportation furnished by the Eastern Massachusetts Street Railway Co. as at present organized unless it is willing to contribute in fares sufficient to pay the men who operate the transportation system a wage which is fairly comparable with the wage paid by other utilities furnishing a like service under similar conditions, particularly when there is no indication that such wage is likely to be reduced in the near future. The statute provides that "the trustees shall from time to time \* \* \* fix such rates of fares as will reasonably insure sufficient income to meet the cost of service." I doubt that it was in the mind of anyone that the cost of service must be met if it required the payment to the employees of a wage substantially less than that paid



by street railway companies operated in the Commonwealth without the assistance of the credit of the Commonwealth.

In considering the demands of the men we should keep in mind that in order to meet the award of the so-called "Ogden arbitration," it was necessary for the company, in order to exist, to change its system into a one-man car system, one-man cars now constituting 96 per cent of the cars operated. So far as appears the employees cooperated in making the one-man car system a success and it seems to me are entitled to consideration for that. Largely by reason of this change the company has turned what seemed to be a hopeless situation into a promising one, providing it receives the cooperation of the men and competition by motor busses is eliminated.

A difficulty arises in determining what is on a parity with that paid by other companies operating in the Commonwealth under similar conditions. It is agreed by the parties that a flat wage scale shall be adopted, applicable throughout the territory in which the street railway operates, irrespective of the varying conditions existing. While the company operates in a number of cities of considerable size, where the population is dense and traffic fairly heavy, it also operates in a large number of communities where the population is relatively small and the traffic light. In the smaller communities the operator is confronted with less difficulty in operation, not only on account of the light traffic on the street car itself, but as well by reason of the absence of congestion of motor vehicles on the highways. Again, the cost of living in the smaller communities is generally somewhat less than in the cities. It is well established that there is a considerable spread in the cost of living between the larger and smaller communities.

After considering all the evidence and the arguments of counsel and taking all the factors into consideration, I am of the opinion that the employees should be awarded an increase in the basic rates of wages of approximately 6 per cent. Accordingly I award an increase of  $3\frac{1}{2}$  cents an hour over the basic wages now in effect.

As to the differential above the rates of wages for conductors and motormen that shall be paid to men operating one-man cars, I am of the opinion that no change should be made at this time. My judgment in this matter is affected by the fact that the parties have agreed that I shall establish a flat rate throughout the territory served by the company. I have no doubt that some of the men working for the Eastern Massachusetts Street Railway Co. are required to perform more arduous duties than any of the men operating one-man cars for the Boston Elevated Railway Co. On the other hand, there are many lines operated by the company where the work of the one-man operator, on account of the very light traffic, is not much more severe than what a conductor would be called upon to perform in a two-men car where the travel is very heavy or a motorman in places where there is a serious congestion of street traffic. In dealing with this question I am in effect determining the compensation to be paid to the uniformed men employed by the company, as but very few of the uniformed men are employed in the operation of two-men cars. In substance, the question is how much more should be paid to the uniformed men on the road than is paid to the other employees. In the consideration of this question I must take into account its effect upon the successful operation of the road. It appears from the evidence that the differential now obtaining is as large as what is paid by most of the roads throughout the country where one and two men cars are operated and a differential is allowed. The differential now paid is the same differential that has been paid since the so-called "Ogden arbitration," and I do not feel that the evidence presented at the hearings is of such weight as would justify me in making a change in the differential at this time.

Accordingly, I award a differential of 5 cents per hour over and above the wage to be paid to conductors and motormen as the compensation to be paid men while operating one-man cars.

The following extracts from the dissenting opinion of James H. Vahey representing the employees are of interest:

I have refused to sign the above award and here record my dissent from it, not only because I think most of the reasoning is faulty, but also because the increase granted is obviously insufficient even from the point of view adopted by the majority of the board.

I disagree in particular with the attitude of the majority in regard to the importance of financial questions in a wage determination. A board having the task of fixing wages should exercise its best judgment as to what is a fair and reasonable wage, not necessarily dealing out exact justice, but at least making a step, however short, toward that exact justice which must be the ultimate goal of humanity. And in determining a fair and reasonable wage no thought must intervene regarding the financial condition of the employing company. The employees of this company entered its service



to perform certain duties. They were not, of course, consulted about any of the numerous problems of construction and investment, and they must not be forced to take upon their shoulders any of the burdens created by unwise or unfortunate decisions of the present or past managements.

I was gratified to see that the majority felt that it was not bound "by the yardstick of the increased cost of living." It appears to me that the majority to some extent has accepted the contention of the men, inasmuch as there has been a widespread increase in living standards over the country as a whole, that a certain portion of this increased living standard should be accorded to them. Nevertheless, the award of the majority merely follows the exact change in living costs since 1900, and enforces for another year the 1900 standard which itself was totally inadequate. It seems to me that adopting the reasoning of the majority it would be but right to grant to these men something in excess of the 1900 standard as a step, even though a slight one, toward exact justice.

The majority of the board has also disregarded the fact that since the so-called "Ogden arbitration" in 1920, the productive employees of the company have been reduced 59 per cent while the income of the company has reduced only 20 per cent. It necessarily follows, therefore, that the men to-day are doing a great deal more work than they did in 1920.

It would not be fair to either of my associates or the trustees of the company finally to conclude this arbitration with an award and my dissenting opinion without expressing my appreciation of the fairness of the chairman of the board of trustees in presenting the case to the board of arbitration, and the fairness of Mr. Cummings, the arbitrator representing the company, the point of view of both of whom is necessarily different from my own.

## HOUSING.

### Building Permits in Principal Cities of the United States, January to June, 1923.

ON JULY 1 of this year questionnaires were sent by the Bureau of Labor Statistics to the building inspectors of each of the 68 cities in the United States having a population of 100,000 or over, requesting the data hereinafter shown. This information has been collected semiannually starting July 1, 1922, that is to say, it has been gathered for three 6-month periods, January to June, 1922, July to December, 1922, and January to June, 1923. Like data were collected for the full calendar years 1920 and 1921.

In each of the two periods of 1922, data were obtained from only 65 of the cities having a population of 100,000 or more, while for the first half of 1923 all of the 68 cities furnished the desired information. In 50 of these cities, city officials filled out and mailed the schedule to the bureau, and for 18 cities schedules were compiled from city records by agents of the bureau. The cities are named in Table 4.

Table 1 shows the total number and estimated cost of each of the different kinds of new buildings covered by permits issued in the 68 cities, 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.—BUILDING PERMITS ISSUED IN 68 CITIES IN THE FIRST SIX MONTHS OF 1923, BY KIND OF BUILDING.

| Kind of building.   | Buildings for which permits were issued. |                    | Cost of buildings. |                    |                            |
|---|--|--------------------|--------------------|--------------------|----------------------------|
|   | Number.                                  | Per cent of total. | Amount.            | Per cent of total. | Average cost per building. |
| <i>Residential buildings.</i>                                 |  |                    |                    |                    |                            |
| One-family dwellings.....                                     | 79,850                                   | 40.6               | \$356,942,709      | 27.4               | \$4,470                    |
| Two-family dwellings.....                                     | 18,323                                   | 9.3                | 128,602,766        | 9.9                | 7,019                      |
| One-family and two-family dwellings with stores combined..... | 2,002                                    | 1.0                | 20,165,333         | 1.5                | 10,073                     |
| Multi-family apartments.....                                  | 5,436                                    | 2.8                | 284,798,825        | 21.9               | 52,391                     |
| Multi-family apartments with stores combined.....             | 452                                      | .2                 | 24,658,617         | 1.9                | 54,554                     |
| Hotels.....   | 98                                       | .1                 | 61,392,465         | 4.7                | 626,454                    |
| Lodging houses.....   | 2  | ( <sup>1</sup> )   | 16,000             | ( <sup>1</sup> )   | 8,000                      |
| All other.....  | 51                                       | ( <sup>1</sup> )   | 8,590,663          | .7                 | 168,444                    |
| Total.....  | 106,214                                  | 54.0               | 885,167,378        | 67.9               | 8,334                      |
| <i>Nonresidential buildings.</i>                              |  |                    |                    |                    |                            |
| Amusement buildings.....                                      | 313                                      | .2                 | 15,888,753         | 1.2                | 50,763                     |
| Churches.....   | 293                                      | .1                 | 15,524,677         | 1.2                | 52,885                     |
| Factories and workshops.....                                  | 1,885                                    | 1.0                | 63,534,026         | 4.9                | 33,705                     |
| Public garages.....   | 1,451                                    | .7                 | 23,395,441         | 1.8                | 16,124                     |
| Private garages.....  | 70,182                                   | 35.7               | 36,318,241         | 2.8                | 517                        |
| Service stations.....   | 1,061                                    | .5                 | 3,312,691          | .3                 | 3,122                      |
| Institutions.....   | 71                                       | ( <sup>1</sup> )   | 9,466,539          | .7                 | 133,351                    |
| Office buildings.....   | 606                                      | .3                 | 84,653,868         | 6.5                | 139,693                    |
| Public buildings.....   | 49                                       | ( <sup>1</sup> )   | 4,396,212          | .3                 | 89,719                     |
| Public works and utilities.....                               | 135                                      | .1                 | 9,493,407          | .7                 | 70,322                     |
| Schools and libraries.....                                    | 316                                      | .2                 | 60,970,471         | 4.7                | 192,945                    |
| Sheds.....  | 8,613                                    | 4.4                | 3,369,086          | .3                 | 391                        |
| Stables and barns.....  | 208                                      | .1                 | 485,203            | ( <sup>1</sup> )   | 2,353                      |
| Stores and warehouses.....                                    | 4,983                                    | 2.5                | 83,755,152         | 6.4                | 16,808                     |
| All other.....  | 444                                      | .2                 | 3,260,831          | .3                 | 7,344                      |
| Total.....  | 90,610                                   | 46.0               | 417,824,571        | 32.1               | 4,611                      |
| Grand total.....  | 196,824                                  | 100.0              | 1,302,991,949      | 100.0              | 6,620                      |

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

The table shows that 54 per cent of the permits issued in these cities from January to June, inclusive, of this year, were for residential buildings and that 67.9 per cent of the estimated cost of all new buildings were spent for this class of building. As in previous years, more permits are being issued for one-family dwellings than for any other class of building, either residential or nonresidential. Private garages, however, are a very close second, permits being issued for 70,182 of them or 35.7 per cent of the total number of permits issued for new buildings, compared with 79,850 one-family dwellings, which compose 40.6 per cent of the new buildings.

Records show that only two permits were issued for lodging houses in these cities during this half yearly period. This does not mean that only two lodging houses were opened during that time, for most lodging houses are old private dwellings converted, very few new buildings being erected expressly for this purpose.

The estimated cost of amusement buildings of all classes was \$15,888,753, compared with \$15,524,677 for churches. The average cost per building was more for churches than for amusement buildings, being \$52,885 for the former and \$50,763 for the latter.

It will be noticed that \$60,970,471 is the estimated amount spent for the erection of schools and libraries, \$4,396,212 for public buildings, \$9,493,407 for public works and utilities and \$9,466,539 for institutions. Practically all of this money is from public funds, that is to say, money raised and expended either by the National Government, the different State governments, or county or city officials. This represents a fund which can absolutely be controlled and be increased or decreased at the public will. Here then is quite a large fund which can be spent more liberally in years of unemployment and pared down when times are good, thereby giving aid where needed without taking any more money from the taxpayer, in fact undoubtedly less money, as building material prices are usually lower in periods of unemployment.

Permits were issued for 98 hotels in these cities during this six-month period, being an average of nearly  $1\frac{1}{2}$  per city. That they were large hotels is shown by the fact that their average cost was over \$600,000. This is undoubtedly one of the best indices of prosperity, for when general business slumps, the hotel business soon shows it by a falling off in patronage, as the large part of hotel trade is derived from traveling representatives of business firms; thus, when more hotels are built, it is an indication that more of such people are traveling.

Table 2 shows the number and per cent of families provided for by each of the different kinds of dwellings in the 65 cities from which reports were received for each of the three 6-month periods.

TABLE 2.—NUMBER AND PER CENT OF FAMILIES TO BE HOUSED IN DWELLINGS FOR WHICH PERMITS WERE ISSUED IN 65 IDENTICAL CITIES IN THE FIRST HALF OF 1922, THE LAST HALF OF 1922, AND THE FIRST HALF OF 1923.

| Kind of dwelling.   | Number of buildings for which permits were issued. |                   |                  | Families provided for. |                   |                  |                  |                   |                  |
|---|--|-------------------|------------------|------------------------|-------------------|------------------|------------------|-------------------|------------------|
|   |  |                   |                  | Number.                |                   |                  | Per cent.        |                   |                  |
|   | First half 1922.                                   | Second half 1922. | First half 1923. | First half 1922.       | Second half 1922. | First half 1923. | First half 1922. | Second half 1922. | First half 1923. |
| One-family dwellings .....                                    | 63,892   | 61,669            | 77,875           | 63,892                 | 61,669            | 77,875           | 43.4             | 42.3              | 39.9             |
| Two-family dwellings .....                                    | 14,549   | 14,259            | 18,082           | 29,098                 | 28,518            | 36,164           | 19.8             | 19.6              | 18.5             |
| One-family and two-family dwellings with stores combined..... | 2,026  | 2,156             | 1,998            | 3,253                  | 3,401             | 3,150            | 2.2              | 2.3               | 1.6              |
| Multi-family apartments.....                                  | 4,209  | 3,756             | 5,353            | 49,291                 | 49,571            | 72,943           | 33.5             | 34.0              | 37.4             |
| Multi-family apartments with stores combined.....             | 277  | 348               | 450              | 1,715                  | 2,495             | 4,883            | 1.2              | 1.7               | 2.5              |
| Total.....  | 84,953   | 82,188            | 103,758          | 147,249                | 145,654           | 195,015          | 100.0            | 100.0             | 100.0            |

A study of this table shows the great increase in the number of new family accommodations planned in the first half of 1923, as compared with either half of 1922, there being permits issued for new buildings to house 195,015 families in these 65 cities during the first six months of 1923, as compared with 147,249 from January to June, 1922, and 145,654 from July to December, 1922. This is an increase of 47,766 over the first half of 1922 and of 49,361 over the last half. This increase in the number of new family accommodations looms even larger when it is remembered that during 1922 far more permits were issued for residential buildings than ever before.

In previous reports of the bureau, it has been pointed out that the number of families provided for in apartment houses was gradually approaching the number supplied by living quarters in one-family houses. This table shows that in the first half of 1923 the number of families for which accommodations were provided by the two classes of apartment houses was 77,826, compared with 77,875 in one-family dwellings. Thus, in cities having a population of 100,000 and over the number of families housed in new apartment buildings has, during the first six months of 1923, approximately equaled the number domiciled in one-family dwellings.

And if the past speaks for the future, the proportion of families living in apartment houses will continue to increase, for in the first six months of 1922 the number of families accommodated in one-family dwellings was 43.4 per cent of the total number of families provided for, while the number housed in the two classes of apartment houses was 34.6 per cent. In the second half the percentage supplied by one-family dwellings had decreased to 42.3 per cent, while that supplied by apartments had increased to 35.7 per cent. In the first half of 1923 the percentage was the same, each of the two classes housing 39.9 per cent of the total number of families accommodated in new dwellings.

Table 3 shows the number and cost of each of the different kinds of buildings for the 65 cities from which reports were received in each of the three periods, January to June, 1922; July to December, 1922; and January to June, 1923, and the percentage of increase or decrease in the number and in the cost in the first half of 1923 as compared with the first half of 1922 and with the last half of 1922.

TABLE 3.—NUMBER AND COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN 65 IDENTICAL CITIES IN FIRST HALF OF 1922, SECOND HALF OF 1922, AND FIRST HALF OF 1923, BY KIND OF BUILDINGS.

| Kind of building.                                      | Buildings for which permits were issued in— |               |                      |               |                     |               | Per cent of increase (+) or decrease (—) in first half of 1923 as compared with— |        |                      |       |
|--|---|---------------|----------------------|---------------|---------------------|---------------|--|--------|----------------------|-------|
|  | First half of 1922.                         |               | Second half of 1922. |               | First half of 1923. |               | First half of 1922.  |        | Second half of 1922. |       |
|  | Number.                                     | Cost.         | Number.              | Cost.         | Number.             | Cost.         | Number.  | Cost.  | Number.              | Cost. |
| <i>Residential buildings.</i>                          |   |               |                      |               |                     |               |  |        |                      |       |
| One-family dwellings.....                              | 63,892                                      | \$275,448,142 | 61,669               | \$279,010,828 | 77,875              | \$350,251,374 | +21.9  | +27.2  | +26.3                | +25.5 |
| Two-family dwellings.....                              | 14,549                                      | 100,079,393   | 14,259               | 98,389,057    | 18,082              | 125,827,256   | +24.3  | +25.7  | +26.8                | +27.9 |
| One and Two family dwellings with stores combined..... | 2,026                                       | 18,519,252    | 2,156                | 21,190,302    | 1,998               | 20,125,633    | -1.4   | +8.7   | -7.3                 | -5.0  |
| Multi-family dwellings.....                            | 4,209                                       | 211,115,378   | 3,756                | 181,691,358   | 5,353               | 283,594,525   | +27.2  | +34.3  | +42.5                | +56.1 |
| Multi-family dwellings with stores combined.....       | 277   | 7,581,009     | 348                  | 13,817,850    | 450                 | 24,613,392    | +62.5  | +224.7 | +29.3                | +78.1 |
| Hotels.....  | 41  | 16,601,185    | 59                   | 47,019,606    | 98                  | 61,392,465    | +139.0   | +269.8 | +66.1                | +30.6 |
| Lodging houses.....                                    | 12  | 1,102,000     | 5                    | 172,100       | 2                   | 16,000        | -83.3  | -98.5  | -60.0                | -90.7 |
| Other.....   | 55  | 11,751,775    | 51                   | 10,440,535    | 51                  | 8,590,663     | -7.3   | -26.9  | -7.3                 | -17.7 |
| Total.....   | 85,061                                      | 642,198,134   | 82,303               | 651,691,636   | 103,909             | 874,411,308   | +22.2  | +36.2  | +26.3                | +34.2 |
| <i>Nonresidential buildings.</i>                       |   |               |                      |               |                     |               |  |        |                      |       |
| Amusement buildings.....                               | 225   | 20,681,933    | 326                  | 18,188,140    | 308                 | 15,836,503    | +36.9  | -23.4  | -5.5                 | -12.9 |
| Churches.....  | 283   | 15,267,659    | 383                  | 15,803,950    | 275                 | 14,884,177    | -2.8   | -2.5   | -28.2                | -5.8  |
| Factories and workshops.....                           | 1,502                                       | 31,338,567    | 1,754                | 56,010,960    | 1,859               | 63,039,826    | +23.8  | +101.2 | -6.0                 | +12.5 |
| Public garages.....                                    | 1,064                                       | 9,748,905     | 1,167                | 12,138,088    | 1,435               | 23,352,191    | +34.9  | +139.5 | +23.0                | +92.4 |
| Private garages.....                                   | 52,015                                      | 25,377,637    | 58,038               | 31,221,564    | 69,201              | 34,770,880    | +33.0  | +37.0  | +19.2                | +11.4 |
| Service stations.....                                  | 610   | 1,520,019     | 727                  | 2,991,207     | 1,051               | 3,270,641     | +72.3  | +115.2 | +44.6                | +9.3  |
| Institutions.....                                      | 62  | 8,499,594     | 121                  | 17,078,652    | 71                  | 9,466,539     | +14.5  | +11.4  | -41.3                | -44.6 |
| Office buildings.....                                  | 549   | 67,546,307    | 562                  | 63,954,925    | 594                 | 84,236,968    | +8.2   | +24.7  | +5.7                 | +31.7 |
| Public buildings.....                                  | 26  | 1,801,720     | 71                   | 10,092,153    | 40                  | 4,316,562     | +53.8  | +139.6 | -43.7                | -57.2 |
| Public works and utilities.....                        | 104   | 6,570,778     | 113                  | 9,479,356     | 132                 | 9,474,207     | +26.9  | +44.2  | +16.8                | -1.1  |
| Schools and libraries.....                             | 272   | 46,535,016    | 304                  | 54,719,205    | 302                 | 59,652,995    | +11.1  | +22.9  | -7                   | +9.0  |
| Sheds.....   | 8,623                                       | 2,889,784     | 9,157                | 3,247,509     | 8,452               | 3,329,071     | -2.0   | +15.2  | -7.7                 | +2.5  |
| Stables and barns.....                                 | 243   | 472,520       | 218                  | 473,839       | 202                 | 481,988       | -16.9  | +2.0   | -7.3                 | +1.7  |
| Stores and warehouses.....                             | 5,440                                       | 68,685,659    | 4,464                | 61,299,069    | 4,752               | 81,656,493    | -12.6  | +18.9  | +6.5                 | +33.2 |
| All other.....   | 895   | 3,524,355     | 515                  | 3,397,776     | 444                 | 3,260,831     | -50.4  | -7.5   | -13.8                | -4.0  |
| Total.....   | 71,913                                      | 312,460,453   | 77,920               | 360,096,393   | 89,118              | 411,029,872   | +23.9  | +31.5  | +14.4                | +14.1 |
| Grand total.....                                       | 156,974                                     | 954,658,587   | 160,223              | 1,011,788,029 | 193,027             | 1,285,441,180 | +23.0  | +34.6  | +20.5                | +27.0 |



The table above shows that the number of permits issued for residential buildings during the first six months of 1923 increased 22.2 per cent over the number issued in the first half of 1922, and 26.3 per cent over those issued in the latter half of 1922. There was an increase of 36.2 per cent in the estimated cost of these buildings as compared with the first half and of 34.2 per cent as compared with the second half of the preceding year. The largest percentual increase for any class of residential buildings was in the number of hotels.

Nonresidential buildings increased 23.9 per cent in number in the first half of 1923 over the corresponding period in 1922 and the money expended for their erection increased 31.5 per cent. As compared with the last half of 1922, the increase in number was 14.4 per cent and in estimated cost 14.1 per cent.

In these 65 cities there were 193,027 permits issued for new buildings of all classes during the period from January to June, 1923. This is an increase of 36,053, or 23.0 per cent, over the 156,974 issued during the same period in 1922. The estimated cost of these projected buildings was \$1,285,441,180 in the first half of 1923 and \$954,658,587 in the first half of 1922, showing an expenditure of \$330,782,593 or 34.6 per cent more during the first half of 1923 than during the first half of 1922.

Comparing the number and estimated cost of all new buildings erected during the period January to June, 1923, with those erected during the period June to December, 1922, an increase of 20.5 per cent is shown in the number and 27.0 per cent in the estimated cost.

The large general table following shows detailed information concerning residential building permits issued in 65 cities during each half of 1922, and in all of the 68 cities having a population of 100,000 and over, during the first half of 1923. For lack of space it is not possible to publish in the REVIEW the detailed figures for nonresidential building permits, which have been summarized in the preceding pages, nor for permits for additions, alterations, and repairs.

This 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 seen that in the great majority of these cities more permits were issued for residential buildings in the first six months of 1923 than for either of the two periods in 1922. New York, Chicago and Los Angeles show a notable increase along with other cities.

In working out the ratio of families provided for to each 10,000 of population, the census figures for 1920 were used.

The figures show that the newer cities continue to have a building growth greater than the older ones; thus, Los Angeles provided for 382.1 families to each 10,000 of population, while Boston provided for only 27.9 during the first six months of this year. This small proportion of families provided for in Boston is partially accounted for by the fact that the city is practically surrounded by smaller cities and towns, and very little room is left within the city limits on which to build.

Los Angeles shows a larger proportion of families provided for compared with its population than any city in the United States for each

of the three periods, there being 212.5 families provided for to each 10,000 of population in the period from January to June, 1922; 273.6 in the period from July to December, 1922 and 382.1 from January to June, 1923.

Following are the eight cities which show a ratio of over 100 families provided for to each 10,000 of population during the first six months of 1923:

|                      |       |               |       |
|----------------------|-------|---------------|-------|
| Los Angeles.....     | 382.1 | Oakland.....  | 122.1 |
| Dallas.....          | 140.1 | Houston.....  | 120.8 |
| Detroit.....         | 137.4 | New York..... | 110.9 |
| Kansas City, Mo..... | 133.3 | Atlanta.....  | 106.0 |

The 65 cities reporting in 1922 showed a ratio of 54.7 families provided for to each 10,000 of population for the first half and 54.1 for the last half, while the 68 cities from which data were obtained for the first six months of 1923 showed the ratio of families provided for during that period to be 72.1 to each 10,000 of population.

In the first six months of 1923 permits were issued in the 68 cities for 92,963 alterations and repairs the estimated cost of which was \$135,822,157.

The number of installation permits and the cost of the installation were obtained whenever issued in the office of the building inspector. In a number of cities no permits were required for signs, boilers, etc.; in other cities these permits were issued from offices other than that of the building inspector. The number of installations reported in the period from January to June, 1923 by the cities issuing this class of permits was 29,950; and the estimated cost of these installations was \$11,985,707.

In the first half of 1923 the total number of permits of all kinds issued in the 68 cities was 319,737 and the estimated cost of all construction was \$1,450,779,813. In the 65 cities reporting for all three periods, 313,239 permits were issued during the first half of 1923, showing an estimated expenditure of \$1,430,765,089. This compares with 267,593 permits costing \$1,070,332,937 for the first six months of 1922, and with 262,524 permits for which \$1,132,050,056 were expended during the last six months of 1922.

The five cities showing the greatest amount of expenditure for building purposes of all kinds during the first half of 1923 and the amounts spent in each of them are shown below:

|                   |               |
|-------------------|---------------|
| New York.....     | \$427,633,386 |
| Chicago.....      | 189,914,112   |
| Los Angeles.....  | 93,889,185    |
| Philadelphia..... | 75,217,095    |
| Detroit.....      | 61,616,302    |

TABLE 4.—NUMBER AND PROPOSED COST OF NEW RESIDENTIAL BUILDINGS COVERED BY PERMITS ISSUED IN 1922 AND IN FIRST HALF OF 1923.

| City and State.       | Period. | Housekeeping dwellings. |             |            |                       |                  |            |  |                  |            |                         |                  |            |  |                  |            |
|-----------------------|---------|-------------------------|-------------|------------|-----------------------|------------------|------------|--|------------------|------------|-------------------------|------------------|------------|--|------------------|------------|
|                       |         | One-family dwellings.   |             |            | Two-family dwellings. |                  |            | One and two family dwellings with stores combined. |                  |            | Multi-family dwellings. |                  |            | Multi-family dwellings with stores combined. |                  |            |
|                       |         | Num-ber.                | Cost.       | Fami-lies. | Num-ber.              | Cost.            | Fami-lies. | Num-ber.   | Cost.            | Fami-lies. | Num-ber.                | Cost.            | Fami-lies. | Num-ber.                                     | Cost.            | Fami-lies. |
| Akron, Ohio.....      | 1 1922  | 151                     | \$679,805   | 151        | -----                 | -----            | -----      | -----  | -----            | -----      | 8                       | \$136,000        | 44         | -----  | -----            | -----      |
|                       | 2 1922  | 186                     | 972,200     | 186        | -----                 | -----            | -----      | -----  | -----            | -----      | 1                       | 12,000           | 4          | -----  | -----            | -----      |
|                       | 1 1923  | 330                     | 1,525,765   | 330        | -----                 | -----            | -----      | -----  | -----            | -----      | -----                   | -----            | -----      | -----  | -----            | -----      |
| Albany, N. Y.....     | 1 1922  | 121                     | 848,700     | 121        | 94                    | \$1,045,200      | 188        | -----  | -----            | -----      | 1                       | 25,000           | 8          | -----  | -----            | -----      |
|                       | 2 1922  | 123                     | 1,006,500   | 123        | 72                    | 748,900          | 144        | -----  | -----            | -----      | -----                   | -----            | -----      | -----  | -----            | -----      |
|                       | 1 1923  | 85                      | 737,300     | 85         | 58                    | 586,000          | 116        | 2  | \$27,000         | 4          | 6                       | 125,000          | 24         | -----  | -----            | -----      |
| Atlanta, Ga.....      | 1 1922  | 1,071                   | 3,677,750   | 1,071      | 95                    | 433,259          | 190        | 6  | 16,900           | 6          | 92                      | 2,138,950        | 645        | 2  | \$32,200         | 9          |
|                       | 2 1922  | 989                     | 3,682,621   | 989        | 104                   | 505,100          | 208        | 2  | 8,000            | 3          | 51                      | 1,503,600        | 469        | -----  | -----            | -----      |
|                       | 1 1923  | 1,129                   | 4,415,388   | 1,129      | 130                   | 586,850          | 260        | 16   | 98,100           | 27         | 76                      | 2,036,725        | 711        | -----  | -----            | -----      |
| Baltimore, Md.....    | 1 1922  | 1,452                   | 7,160,200   | 1,452      | 160                   | 971,000          | 320        | 11   | 68,400           | 17         | 14                      | 880,800          | 176        | 1  | 7,200            | 3          |
|                       | 2 1922  | 1,718                   | 6,554,500   | 1,718      | 172                   | 838,000          | 344        | 18   | 85,500           | 20         | 9                       | 730,000          | 184        | -----  | -----            | -----      |
|                       | 1 1923  | 1,956                   | 7,471,925   | 1,956      | 225                   | 1,318,575        | 450        | 7  | 30,000           | 8          | 12                      | 1,207,000        | 267        | -----  | -----            | -----      |
| Birmingham, Ala.....  | 1 1922  | 752                     | 1,678,785   | 752        | -----                 | -----            | -----      | 5  | 12,900           | 6          | 1                       | 12,000           | 4          | -----  | -----            | -----      |
|                       | 2 1922  | 637                     | 1,717,406   | 637        | 2                     | 5,400            | 4          | 19   | 26,500           | 19         | 1                       | 60,000           | 24         | 3  | 68,000           | 12         |
|                       | 1 1923  | 1,394                   | 2,570,144   | 1,394      | 5                     | 26,000           | 10         | 4  | 12,500           | 6          | 9                       | 494,000          | 84         | 1  | 27,000           | 4          |
| Boston, Mass.....     | 1 1922  | 129                     | \$7,202,600 | 129        | 136                   | ( <sup>1</sup> ) | 272        | 3  | ( <sup>1</sup> ) | 5          | 100                     | ( <sup>1</sup> ) | 1,194      | 7  | ( <sup>1</sup> ) | 24         |
|                       | 2 1922  | 128                     | \$6,386,430 | 128        | 153                   | ( <sup>1</sup> ) | 306        | 2  | ( <sup>1</sup> ) | 2          | 110                     | ( <sup>1</sup> ) | 1,366      | 1  | ( <sup>1</sup> ) | 8          |
|                       | 1 1923  | 116                     | \$6,640,980 | 116        | 150                   | ( <sup>1</sup> ) | 300        | 2  | ( <sup>1</sup> ) | 2          | 109                     | ( <sup>1</sup> ) | 1,564      | 4  | ( <sup>1</sup> ) | 107        |
| Bridgeport, Conn..... | 1 1922  | 32                      | 114,950     | 32         | 25                    | 130,450          | 50         | -----  | -----            | -----      | 15                      | 103,700          | 48         | -----  | -----            | -----      |
|                       | 2 1922  | 50                      | 196,140     | 50         | 20                    | 121,150          | 40         | -----  | -----            | -----      | 10                      | 67,100           | 30         | -----  | -----            | -----      |
|                       | 1 1923  | 32                      | 153,070     | 32         | 8                     | 70,300           | 16         | -----  | -----            | -----      | 9                       | 75,200           | 27         | -----  | -----            | -----      |
| Buffalo, N. Y.....    | 1 1922  | 884                     | 3,218,885   | 884        | 147                   | 1,213,240        | 294        | 59   | 543,700          | 72         | 1                       | 5,000            | 4          | 1  | 25,000           | 8          |
|                       | 2 1922  | 964                     | 3,485,410   | 964        | 369                   | 1,581,180        | 738        | 54   | 464,300          | 100        | 4                       | 45,500           | 15         | -----  | -----            | -----      |
|                       | 1 1923  | 840                     | 3,374,350   | 840        | 361                   | 1,488,520        | 722        | 36   | 291,300          | 48         | 6                       | 205,500          | 46         | 5  | 128,000          | 21         |
| Cambridge, Mass.....  | 1 1922  | 20                      | 270,750     | 20         | 29                    | 280,900          | 58         | -----  | -----            | -----      | 1                       | 150,000          | 33         | -----  | -----            | -----      |
|                       | 2 1922  | 20                      | 338,462     | 20         | 28                    | 292,800          | 56         | -----  | -----            | -----      | 2                       | 215,000          | 50         | -----  | -----            | -----      |
|                       | 1 1923  | 15                      | 199,500     | 15         | 25                    | 302,400          | 50         | -----  | -----            | -----      | 8                       | 360,000          | 129        | -----  | -----            | -----      |
| Camden, N. J.....     | 1 1922  | 165                     | 652,000     | 165        | -----                 | -----            | -----      | 6  | 19,800           | 8          | -----                   | -----            | -----      | -----  | -----            | -----      |
|                       | 2 1922  | 200                     | 795,500     | 200        | 30                    | 226,000          | 60         | -----  | -----            | -----      | -----                   | -----            | -----      | -----  | -----            | -----      |
|                       | 1 1923  | 235                     | 961,535     | 235        | -----                 | -----            | -----      | 17   | 179,000          | 30         | -----                   | -----            | -----      | -----  | -----            | -----      |
| Chicago, Ill.....     | 1 1922  | 3,036                   | 15,442,255  | 3,036      | 1,282                 | 12,260,840       | 2,564      | 219  | 2,368,100        | 320        | 1,012                   | 34,245,900       | 6,542      | 63   | 2,450,000        | 416        |
|                       | 2 1922  | 3,116                   | 15,309,800  | 3,116      | 1,395                 | 12,958,550       | 2,790      | 199  | 3,046,800        | 302        | 327                     | 25,623,200       | 4,455      | 77   | 5,041,200        | 686        |
|                       | 1 1923  | 3,474                   | 18,780,890  | 3,474      | 1,688                 | 17,226,650       | 3,376      | 207  | 2,730,200        | 313        | 586                     | 44,291,100       | 8,138      | 89   | 9,390,000        | 1,320      |

| City and State.       | Period.           | Housekeeping dwellings—Concluded. |                     |  | Nonhousekeeping dwellings. |            |                 |           |         |           | Total new residential buildings. |            |             |
|-----------------------|-------------------|-----------------------------------|---------------------|--|----------------------------|------------|-----------------|-----------|---------|-----------|----------------------------------|------------|-------------|
|                       |                   | Total families.                   | Population in 1920. | Ratio of families provided for to each 10,000 of population. | Hotels.                    |            | Lodging houses. |           | Other.  |           |                                  |            |             |
|                       |                   |                                   |                     |  | Number.                    | Cost.      | Number.         | Cost.     | Number. | Cost.     | Number.                          | Cost.      |             |
| Akron, Ohio.....      | <sup>1</sup> 1922 | 195                               | 208,435             | 9.4  |                            |            |                 |           |         |           | 159                              | \$815,805  |             |
|                       | <sup>2</sup> 1922 | 190                               |                     | 9.1  |                            |            |                 |           |         |           | 187                              | 984,200    |             |
|                       | <sup>1</sup> 1923 | 330                               |                     | 15.8   |                            |            |                 |           |         |           | 330                              | 1,525,765  |             |
| Albany, N. Y.....     | <sup>1</sup> 1922 | 317                               | 113,344             | 28.0   | 1                          | \$250,000  |                 |           |         |           | 217                              | 2,168,900  |             |
|                       | <sup>2</sup> 1922 | 267                               |                     | 23.6   |                            |            |                 |           |         |           | 195                              | 1,755,400  |             |
|                       | <sup>1</sup> 1923 | 229                               |                     | 20.2   |                            |            |                 |           |         |           | 151                              | 1,475,300  |             |
| Atlanta, Ga.....      | <sup>1</sup> 1922 | 1,921                             | 200,616             | 95.8   |                            |            |                 |           |         |           | 1,266                            | 6,299,059  |             |
|                       | <sup>2</sup> 1922 | 1,669                             |                     | 83.2   | 2                          | 670,000    |                 |           |         |           | 1,148                            | 6,369,321  |             |
|                       | <sup>1</sup> 1923 | 2,127                             |                     | 106.0  | 2                          | 2,400,000  |                 |           |         |           | 1,353                            | 9,537,063  |             |
| Baltimore, Md.....    | <sup>1</sup> 1922 | 1,968                             | 733,826             | 26.8   |                            |            |                 |           |         |           | 1,638                            | 9,087,600  |             |
|                       | <sup>2</sup> 1922 | 2,266                             |                     | 30.9   |                            |            |                 |           |         |           | 1,917                            | 8,208,000  |             |
|                       | <sup>1</sup> 1923 | 2,681                             |                     | 36.5   |                            |            |                 |           |         |           | 2,201                            | 10,067,500 |             |
| Birmingham, Ala.....  | <sup>1</sup> 1922 | 762                               | 178,806             | 42.6   |                            |            |                 |           |         | 1         | \$40,000                         | 758        | 1,703,685   |
|                       | <sup>2</sup> 1922 | 696                               |                     | 38.9   |                            |            |                 |           |         | 1         | 81,000                           | 663        | 1,958,306   |
|                       | <sup>1</sup> 1923 | 1,498                             |                     | 83.8   |                            |            |                 |           |         |           | 1,413                            | 3,129,644  |             |
| Boston, Mass.....     | <sup>1</sup> 1922 | 1,624                             | 748,060             | 21.7   |                            |            | 2               | \$300,000 |         |           | 377                              | 7,502,600  |             |
|                       | <sup>2</sup> 1922 | 1,810                             |                     | 24.2   | 1                          | 5,000,000  |                 |           | 5       | 825,000   | 400                              | 12,211,430 |             |
|                       | <sup>1</sup> 1923 | 2,089                             |                     | 27.9   | 3                          | 1,663,000  |                 |           |         |           | 384                              | 8,303,980  |             |
| Bridgeport, Conn..... | <sup>1</sup> 1922 | 130                               | 143,535             | 9.1  |                            |            |                 |           | 1       | 38,000    | 73                               | 387,100    |             |
|                       | <sup>2</sup> 1922 | 120                               |                     | 8.4  |                            |            |                 |           | 1       | 108,700   | 81                               | 493,090    |             |
|                       | <sup>1</sup> 1923 | 75                                |                     | 5.2  |                            |            |                 |           |         |           | 49                               | 298,570    |             |
| Buffalo, N. Y.....    | <sup>1</sup> 1922 | 1,262                             | 506,775             | 24.9   | 1                          | 450,000    |                 |           | 2       | 55,000    | 1,095                            | 5,510,825  |             |
|                       | <sup>2</sup> 1922 | 1,817                             |                     | 35.9   |                            |            |                 |           | 2       | 1,212,000 | 1,393                            | 6,788,390  |             |
|                       | <sup>1</sup> 1923 | 1,677                             |                     | 33.1   |                            |            |                 |           |         |           | 1,248                            | 5,487,670  |             |
| Cambridge, Mass.....  | <sup>1</sup> 1922 | 111                               | 109,694             | 10.1   |                            |            |                 |           |         |           | 50                               | 701,650    |             |
|                       | <sup>2</sup> 1922 | 126                               |                     | 11.5   |                            |            |                 |           |         |           | 50                               | 846,262    |             |
|                       | <sup>1</sup> 1923 | 194                               |                     | 17.7   |                            |            |                 |           |         |           | 48                               | 861,900    |             |
| Camden, N. J.....     | <sup>1</sup> 1922 | 173                               | 116,309             | 14.9   |                            |            |                 |           |         |           | 171                              | 671,800    |             |
|                       | <sup>2</sup> 1922 | 260                               |                     | 22.4   |                            |            |                 |           |         |           | 230                              | 1,021,500  |             |
|                       | <sup>1</sup> 1923 | 265                               |                     | 22.8   |                            |            |                 |           |         |           | 252                              | 1,140,535  |             |
| Chicago, Ill.....     | <sup>1</sup> 1922 | 12,878                            | 2,701,705           | 47.7   | 8                          | 2,360,000  |                 |           | 3       | 570,000   | 5,623                            | 69,697,095 |             |
|                       | <sup>2</sup> 1922 | 11,349                            |                     | 42.0   | 9                          | 14,330,000 |                 | 2         | 160,000 | 5         | 620,000                          | 5,130      | 77,089,550  |
|                       | <sup>1</sup> 1923 | 16,621                            |                     | 61.5   | 23                         | 30,796,000 |                 | 1         | 15,000  | 2         | 500,000                          | 6,070      | 123,729,840 |

<sup>1</sup> First six months.<sup>2</sup> Last six months.<sup>3</sup> Includes cost of two-family dwellings, one and two family dwellings with stores combined, multi-family dwellings, and multi-family dwellings with stores combined.<sup>4</sup> Included with cost of one-family dwellings.

TABLE 4.—NUMBER AND PROPOSED COST OF NEW RESIDENTIAL BUILDINGS COVERED BY PERMITS ISSUED IN 1922 AND IN FIRST HALF OF 1923—Continued.

| City and State.       | Period. | Housekeeping dwellings. |             |            |                       |           |            |  |          |            |                         |            |            |  |           |            |
|-----------------------|---------|-------------------------|-------------|------------|-----------------------|-----------|------------|--|----------|------------|-------------------------|------------|------------|--|-----------|------------|
|                       |         | One-family dwellings.   |             |            | Two-family dwellings. |           |            | One and two family dwellings with stores combined. |          |            | Multi-family dwellings. |            |            | Multi-family dwellings with stores combined. |           |            |
|                       |         | Num-ber.                | Cost.       | Fami-lies. | Num-ber.              | Cost.     | Fami-lies. | Num-ber.   | Cost.    | Fami-lies. | Num-ber.                | Cost.      | Fami-lies. | Num-ber.                                     | Cost.     | Fami-lies. |
| Cincinnati, Ohio..... | 1 1922  | 906                     | \$5,395,180 | 906        | 98                    | \$887,900 | 196        | 6  | \$56,000 | 10         | 11                      | \$207,300  | 41         | 3  | \$81,000  | 12         |
|                       | 2 1922  | 974                     | 4,698,095   | 974        | 86                    | 782,950   | 172        |  |          |            | 7                       | 357,000    | 196        | 5  | 650,000   | 102        |
|                       | 1 1923  | 929                     | 5,822,290   | 929        | 154                   | 1,241,050 | 308        | 4  | 34,250   | 6          | 23                      | 329,000    | 106        | 1  | 35,000    | 3          |
| Cleveland, Ohio.....  | 1 1922  | 970                     | 6,828,700   | 970        | 376                   | (*)       | 752        |  |          |            | 89                      | 3,428,250  | 953        |  |           |            |
|                       | 2 1922  | 912                     | 6,785,950   | 912        | 398                   | (*)       | 796        |  |          |            | 57                      | 4,612,000  | 770        |  |           |            |
|                       | 1 1923  | 1,270                   | 10,330,450  | 1,270      | 539                   | (*)       | 1,078      |  |          |            | 88                      | 5,042,500  | 1,196      |  |           |            |
| Columbus, Ohio.....   | 1 1922  | 740                     | 3,286,550   | 740        | 184                   | 1,206,600 | 368        | 10   | 62,250   | 13         | 20                      | 829,200    | 144        |  |           |            |
|                       | 2 1922  | 651                     | 2,974,600   | 651        | 168                   | 1,174,100 | 336        | 19   | 183,700  | 32         | 10                      | 219,000    | 193        |  |           |            |
|                       | 1 1923  | 880                     | 4,001,300   | 880        | 372                   | 2,783,500 | 744        | 21   | 201,500  | 31         | 37                      | 641,500    | 178        |  |           |            |
| Dallas, Tex.....      | 1 1922  | 1,353                   | 3,847,871   | 1,353      | 93                    | 487,550   | 186        |  |          |            | 23                      | 383,250    | 96         | 2  | 165,000   | 30         |
|                       | 2 1922  | 1,317                   | 4,080,878   | 1,317      | 127                   | 778,020   | 254        |  |          |            | 36                      | 610,900    | 360        | 2  | 76,000    | 8          |
|                       | 1 1923  | 1,424                   | 4,497,975   | 1,424      | 142                   | 880,800   | 284        |  |          |            | 65                      | 2,478,361  | 519        |  |           |            |
| Dayton, Ohio.....     | 1 1922  | 363                     | 1,793,587   | 363        | 65                    | 469,295   | 130        |  |          |            | 9                       | 214,000    | 138        |  |           |            |
|                       | 2 1922  | 287                     | 1,314,066   | 287        | 48                    | 393,300   | 96         |  |          |            | 1                       | 332,000    | 47         |  |           |            |
|                       | 1 1923  | 530                     | 2,432,218   | 530        | 73                    | 568,169   | 146        | 4  | 30,000   | 5          | 9                       | 372,500    | 52         | 5  | 84,700    | 24         |
| Denver, Colo.....     | 1 1922  | 1,078                   | 4,065,300   | 1,078      | 77                    | 495,000   | 154        |  |          |            |                         |            |            | 11   | 574,000   | 200        |
|                       | 2 1922  | 1,044                   | 3,723,300   | 1,044      | 100                   | 629,500   | 200        |  |          |            | 11                      | 432,000    | 50         |  |           |            |
|                       | 1 1923  | 1,288                   | 4,325,000   | 1,288      | 104                   | 700,000   | 208        |  |          |            | 15                      | 1,027,000  | 300        |  |           |            |
| Des Moines, Iowa..... | 1 1922  | 624                     | 2,098,470   | 624        | 4                     | 8,800     | 8          |  |          |            | 5                       | 45,800     | 18         |  |           |            |
|                       | 2 1922  | 534                     | 1,920,375   | 534        | 8                     | 65,000    | 16         | 2  | 12,500   | 2          | 13                      | 1,077,600  | 391        | 2  | 105,000   | 31         |
|                       | 1 1923  | 710                     | 2,707,615   | 710        |                       |           |            | 1  | 4,500    | 1          | 7                       | 228,000    | 95         | 4  | 50,500    | 4          |
| Detroit, Mich.....    | 1 1922  | 2,912                   | 10,512,486  | 2,912      | 613                   | 4,292,050 | 1,226      |  |          |            | 123                     | 6,683,125  | 2,730      | 79   | 1,596,794 | 404        |
|                       | 2 1922  | 4,124                   | 14,682,275  | 4,124      | 788                   | 5,256,900 | 1,576      |  |          |            | 187                     | 8,224,614  | 3,513      | 100  | 1,478,419 | 328        |
|                       | 1 1923  | 6,195                   | 22,245,248  | 6,195      | 1,209                 | 8,897,121 | 2,418      |  |          |            | 250                     | 10,266,334 | 4,317      | 101  | 2,741,627 | 724        |
| Fall River, Mass..... | 1 1922  | 66                      | 278,975     | 66         | 12                    | 74,800    | 24         | 3  | 34,200   | 5          | 22                      | 218,935    | 66         | 1  | 25,000    | 6          |
|                       | 2 1922  | 102                     | 474,625     | 102        | 28                    | 197,000   | 56         | 6  | 72,350   | 12         | 54                      | 544,802    | 165        | 1  | 9,600     | 3          |
|                       | 1 1923  | 98                      | 476,567     | 98         | 24                    | 180,870   | 48         | 5  | 42,000   | 7          | 43                      | 438,040    | 129        |  |           |            |
| Fort Worth, Tex.....  | 1 1923  | 978                     | 3,157,225   | 978        | 4                     | 18,910    | 8          | 1  | 5,500    | 1          | 10                      | 159,000    | 40         | 2  | 45,225    | 7          |
|                       | 1 1922  | 525                     | 1,728,765   | 525        | 9                     | 53,400    | 18         | 5  | 28,000   | 10         | 6                       | 656,000    | 150        |  |           |            |
|                       | 2 1922  | 524                     | 2,646,195   | 524        | 22                    | 108,000   | 44         |  |          |            | 14                      | 342,900    | 131        |  |           |            |
| Hartford, Conn.....   | 1 1923  | 659                     | 2,661,750   | 659        |                       |           |            |  |          |            |                         |            |            |  |           |            |
|                       | 1 1922  | 45                      | 326,340     | 45         | 69                    | 637,050   | 138        |  |          |            | 65                      | 1,224,100  | 388        |  |           |            |
|                       | 2 1922  | 45                      | 430,000     | 45         | 60                    | 557,850   | 120        |  |          |            | 93                      | 1,483,647  | 412        |  |           |            |
|                       | 1 1923  | 46                      | 370,050     | 46         | 42                    | 409,236   | 84         |  |          |            | 71                      | 1,283,493  | 356        |  |           |            |

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| City and State.       | Period.           | Housekeeping dwellings—Concluded. |                     |  | Nonhousekeeping dwellings. |             |                 |          |         |             | Total new residential buildings. |             |
|-----------------------|-------------------|-----------------------------------|---------------------|--|----------------------------|-------------|-----------------|----------|---------|-------------|----------------------------------|-------------|
|                       |                   | Total families.                   | Population in 1920. | Ratio of families provided for to each 10,000 of population. | Hotels.                    |             | Lodging houses. |          | Other.  |             |                                  |             |
|                       |                   |                                   |                     |  | Number.                    | Cost.       | Number.         | Cost.    | Number. | Cost.       | Number.                          | Cost.       |
| Cincinnati, Ohio..... | <sup>1</sup> 1922 | 1,165                             | 401,247             | 29.0   |                            |             |                 |          | 4       | \$1,673,275 | 1,028                            | \$8,300,655 |
|                       | <sup>2</sup> 1922 | 1,444                             |                     | 36.0   |                            |             |                 |          |         |             | 1,072                            | 6,488,045   |
|                       | <sup>1</sup> 1923 | 1,352                             |                     | 33.7   |                            |             |                 |          | 3       | 455,000     | 1,114                            | 7,916,590   |
| Cleveland, Ohio.....  | <sup>1</sup> 1922 | 2,675                             | 796,841             | 33.6   | 1                          | \$1,000,000 |                 |          |         |             | 1,436                            | 11,256,950  |
|                       | <sup>2</sup> 1922 | 2,478                             |                     | 31.1   | 1                          | 400,000     |                 |          |         |             | 1,368                            | 11,797,950  |
|                       | <sup>1</sup> 1923 | 3,544                             |                     | 44.5   | 1                          | 650,000     |                 |          |         |             | 1,898                            | 16,022,950  |
| Columbus, Ohio.....   | <sup>1</sup> 1922 | 1,265                             | 237,031             | 53.4   |                            |             | 1               | \$18,000 |         |             | 955                              | 5,402,600   |
|                       | <sup>2</sup> 1922 | 1,212                             |                     | 51.1   |                            |             |                 |          | 1       | 924,000     | 849                              | 5,475,400   |
|                       | <sup>1</sup> 1923 | 1,833                             |                     | 77.3   |                            |             |                 |          | 1       | 42,000      | 1,311                            | 7,669,800   |
| Dallas, Tex.....      | <sup>1</sup> 1922 | 1,665                             | 158,976             | 104.7  | 1                          | 30,000      |                 |          |         |             | 1,472                            | 4,913,671   |
|                       | <sup>2</sup> 1922 | 1,939                             |                     | 122.0  |                            |             |                 |          |         |             | 1,482                            | 5,495,798   |
|                       | <sup>1</sup> 1923 | 2,227                             |                     | 140.1  |                            |             |                 |          |         |             | 1,631                            | 7,857,136   |
| Dayton, Ohio.....     | <sup>1</sup> 1922 | 631                               | 152,559             | 41.4   |                            |             |                 |          |         |             | 437                              | 2,476,882   |
|                       | <sup>2</sup> 1922 | 430                               |                     | 28.2   |                            |             |                 |          |         |             | 336                              | 2,039,366   |
|                       | <sup>1</sup> 1923 | 757                               |                     | 49.6   |                            |             |                 |          |         |             | 621                              | 3,487,587   |
| Denver, Colo.....     | <sup>1</sup> 1922 | 1,432                             | 256,491             | 55.8   |                            |             |                 |          |         |             | 1,166                            | 5,107,300   |
|                       | <sup>2</sup> 1922 | 1,294                             |                     | 50.5   |                            |             |                 |          |         |             | 1,155                            | 4,784,800   |
|                       | <sup>1</sup> 1923 | 1,796                             |                     | 70.0   |                            |             |                 |          |         |             | 1,407                            | 6,052,000   |
| Des Moines, Iowa..... | <sup>1</sup> 1922 | 650                               | 126,468             | 51.4   |                            |             |                 |          |         |             | 633                              | 2,153,070   |
|                       | <sup>2</sup> 1922 | 974                               |                     | 77.0   |                            |             |                 |          | 1       | 125,000     | 560                              | 3,305,475   |
|                       | <sup>1</sup> 1923 | 810                               |                     | 64.0   |                            |             |                 |          |         |             | 722                              | 2,990,615   |
| Detroit, Mich.....    | <sup>1</sup> 1922 | 7,272                             | 993,678             | 73.2   | 2                          | 106,300     |                 |          |         |             | 3,729                            | 23,190,755  |
|                       | <sup>2</sup> 1922 | 9,541                             |                     | 96.0   | 3                          | 233,000     |                 |          |         |             | 5,202                            | 29,875,208  |
|                       | <sup>1</sup> 1923 | 13,654                            |                     | 137.4  | 8                          | 1,028,400   |                 |          | 1       | 139,800     | 7,764                            | 45,318,530  |
| Fall River, Mass..... | <sup>1</sup> 1922 | 167                               | 120,485             | 13.9   |                            |             |                 |          |         |             | 104                              | 631,910     |
|                       | <sup>2</sup> 1922 | 338                               |                     | 28.1   |                            |             |                 |          |         |             | 191                              | 1,298,377   |
|                       | <sup>1</sup> 1923 | 282                               |                     | 23.4   |                            |             |                 |          |         |             | 170                              | 1,137,477   |
| Fort Worth, Tex.....  | <sup>1</sup> 1923 | 1,034                             | 106,482             | 97.1   |                            |             |                 |          |         |             | 995                              | 3,386,460   |
| Grand Rapids, Mich... | <sup>1</sup> 1922 | 703                               | 137,634             | 51.1   | 1                          | 600,000     |                 |          |         |             | 546                              | 3,066,165   |
|                       | <sup>2</sup> 1922 | 699                               |                     | 50.8   | 2                          | 1,661,000   |                 |          |         |             | 562                              | 4,758,095   |
|                       | <sup>1</sup> 1923 | 659                               |                     | 47.9   |                            |             |                 |          |         |             | 659                              | 2,661,750   |
| Hartford, Conn.....   | <sup>1</sup> 1922 | 571                               | 138,036             | 41.4   |                            |             |                 |          |         |             | 179                              | 2,187,490   |
|                       | <sup>2</sup> 1922 | 577                               |                     | 41.8   |                            |             |                 |          | 1       | 165,000     | 199                              | 2,636,497   |
|                       | <sup>1</sup> 1923 | 486                               |                     | 35.2   |                            |             |                 |          |         |             | 159                              | 2,062,779   |

<sup>1</sup> First six months.<sup>2</sup> Last six months.<sup>4</sup> Included with cost of one-family dwellings.<sup>5</sup> Includes cost of two-family dwellings.

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TABLE 4.—NUMBER AND PROPOSED COST OF NEW RESIDENTIAL BUILDINGS COVERED BY PERMITS ISSUED IN 1922 AND IN FIRST HALF OF 1923—Continued.

| City and State.     | Period.           | Housekeeping dwellings |             |           |                       |            |           |  |          |           |                         |            |           |  |          |           |
|---------------------|-------------------|------------------------|-------------|-----------|-----------------------|------------|-----------|--|----------|-----------|-------------------------|------------|-----------|--|----------|-----------|
|                     |                   | One-family dwellings.  |             |           | Two-family dwellings. |            |           | One and two family dwellings with stores combined. |          |           | Multi-family dwellings. |            |           | Multi-family dwellings with stores combined. |          |           |
|                     |                   | Number.                | Cost.       | Families. | Number.               | Cost.      | Families. | Number.  | Cost.    | Families. | Number.                 | Cost.      | Families. | Number.                                      | Cost.    | Families. |
| Houston, Tex.       | <sup>1</sup> 1922 | 1,412                  | \$4,087,316 | 1,412     | 33                    | \$193,170  | 66        | 6  | \$27,077 | 9         | 30                      | \$441,690  | 181       | 6  | \$93,100 | 20        |
|                     | <sup>2</sup> 1922 | 1,183                  | 3,002,562   | 1,183     | 30                    | 171,530    | 60        | 21   | 85,400   | 35        | 24                      | 283,750    | 135       | 6  | 73,700   | 39        |
|                     | <sup>1</sup> 1923 | 1,373                  | 3,786,501   | 1,373     | 36                    | 235,435    | 72        | 10   | 29,482   | 17        | 31                      | 459,683    | 169       | 10   | 130,000  | 20        |
| Indianapolis, Ind.  | <sup>1</sup> 1922 | 1,600                  | 5,200,000   | 1,600     | 75                    | 375,000    | 150       | 25   | 230,000  | 40        | 14                      | 602,000    | 160       | 3  | 115,000  | 20        |
|                     | <sup>2</sup> 1922 | 1,010                  | 3,484,500   | 1,010     | 378                   | 2,608,200  | 756       | 50   | 250,000  | 75        | 25                      | 1,700,000  | 300       | 5  | 121,000  | 21        |
|                     | <sup>1</sup> 1923 | 1,219                  | 5,364,793   | 1,219     | 265                   | 1,720,378  | 530       | 3  | 39,425   | 4         | 10                      | 364,850    | 159       | 4  | 37,000   | 6         |
| Jersey City, N. J.  | <sup>1</sup> 1922 | 47                     | 397,120     | 47        | 151                   | 1,413,273  | 302       | 26   | 351,000  | 36        | 22                      | 2,326,460  | 478       | 2  | 92,000   | 20        |
|                     | <sup>2</sup> 1922 | 26                     | 171,990     | 26        | 167                   | 1,478,650  | 334       | 20   | 231,200  | 38        | 24                      | 1,895,140  | 489       | 3  | 292,000  | 85        |
|                     | <sup>1</sup> 1923 | 28                     | 270,250     | 28        | 178                   | 1,768,800  | 356       | 26   | 345,000  | 43        | 31                      | 2,463,000  | 597       | 2  |          |           |
| Kansas City, Kans.  | <sup>1</sup> 1922 | 263                    | 598,593     | 263       |                       |            |           |  |          |           | 1                       | 16,000     | 6         |  |          |           |
|                     | <sup>2</sup> 1922 | 246                    | 599,550     | 246       |                       |            |           |  |          |           |                         |            |           | 1  | 12,000   | 4         |
|                     | <sup>1</sup> 1923 | 437                    | 1,017,700   | 437       | 2                     | 5,800      | 4         | 5  | 9,900    | 8         |                         |            |           |  |          |           |
| Kansas City, Mo.    | <sup>1</sup> 1922 | 1,259                  | 4,170,400   | 1,259     | 26                    | 172,000    | 52        |  |          |           | 62                      | 2,280,500  | 885       |  |          |           |
|                     | <sup>2</sup> 1922 | 1,473                  | 5,151,800   | 1,473     | 34                    | 227,000    | 68        |  |          |           | 80                      | 1,683,500  | 951       |  |          |           |
|                     | <sup>1</sup> 1923 | 1,558                  | 5,099,750   | 1,558     | 56                    | 431,500    | 112       | 8  | 44,500   | 16        | 212                     | 3,767,100  | 2,544     | 8  | 133,000  | 96        |
| Los Angeles, Calif. | <sup>1</sup> 1922 | 7,162                  | 16,574,858  | 7,162     | 1,256                 | 5,771,562  | 2,512     |  |          |           | 391                     | 6,125,117  | 2,579     |  |          |           |
|                     | <sup>2</sup> 1922 | 8,211                  | 21,673,320  | 8,211     | 1,568                 | 7,468,969  | 3,136     |  |          |           | 463                     | 9,390,963  | 4,433     |  |          |           |
|                     | <sup>1</sup> 1923 | 9,522                  | 25,405,680  | 9,522     | 2,388                 | 11,243,738 | 4,776     |  |          |           | 750                     | 18,412,955 | 7,738     |  |          |           |
| Louisville, Ky.     | <sup>1</sup> 1922 | 650                    | 3,548,000   | 650       | 26                    | 130,000    | 52        | 12   | 56,000   | 15        | 9                       | 646,000    | 82        |  |          |           |
|                     | <sup>2</sup> 1922 | 625                    | 2,986,000   | 625       | 54                    | 55,000     | 108       | 5  | 32,000   | 10        | 1                       | 20,000     | 3         | 1  | 4,000    | 3         |
|                     | <sup>1</sup> 1923 | 1,218                  | 2,016,450   | 1,218     | 30                    | 150,000    | 60        | 45   | 142,000  | 62        | 10                      | 200,000    | 40        |  |          |           |
| Lowell, Mass.       | <sup>1</sup> 1922 | 105                    | 496,360     | 105       | 34                    | 192,200    | 68        | 5  | 29,700   | 5         | 2                       | 13,500     | 6         |  |          |           |
|                     | <sup>2</sup> 1922 | 97                     | 338,425     | 97        | 36                    | 195,200    | 72        | 5  | 27,500   | 5         | 5                       | 56,140     | 36        |  |          |           |
|                     | <sup>1</sup> 1923 | 92                     | 369,100     | 92        | 41                    | 234,300    | 82        | 2  | 12,500   | 3         | 4                       | 58,500     | 33        | 2  | 60,000   | 26        |
| Memphis, Tenn.      | <sup>1</sup> 1922 | 818                    | 3,411,264   | 818       | 27                    | 131,480    | 54        | 8  | 50,600   | 13        | 27                      | 788,400    | 250       | 7  | 75,430   | 25        |
|                     | <sup>2</sup> 1922 | 663                    | 2,593,945   | 663       | 38                    | 195,870    | 76        | 6  | 35,200   | 6         | 13                      | 886,150    | 339       |  |          |           |
|                     | <sup>1</sup> 1923 | 828                    | 3,563,125   | 828       | 53                    | 376,250    | 106       | 9  | 52,875   | 10        | 35                      | 1,743,750  | 254       | 5  | 67,500   | 20        |
| Milwaukee, Wis.     | <sup>1</sup> 1922 | 568                    | 3,042,848   | 568       | 295                   | 2,230,050  | 590       | 40   | 401,000  | 53        | 12                      | 677,500    | 204       |  |          |           |
|                     | <sup>2</sup> 1922 | 558                    | 2,810,175   | 558       | 322                   | 2,438,686  | 644       | 42   | 525,900  | 60        | 13                      | 896,000    | 287       |  |          |           |
|                     | <sup>1</sup> 1923 | 653                    | 3,298,250   | 653       | 336                   | 2,728,200  | 672       | 28   | 401,500  | 40        | 14                      | 1,065,000  | 282       |  |          |           |
| Minneapolis, Minn.  | <sup>1</sup> 1922 | 1,740                  | 6,031,190   | 1,740     | 92                    | 762,850    | 184       | 17   | 94,650   | 23        | 69                      | 3,147,200  | 814       |  |          |           |
|                     | <sup>2</sup> 1922 | 1,390                  | 4,572,810   | 1,390     | 90                    | 679,400    | 180       | 12   | 36,000   | 18        | 42                      | 1,938,600  | 314       |  |          |           |
|                     | <sup>1</sup> 1923 | 1,604                  | 5,566,705   | 1,604     | 113                   | 972,200    | 226       | 7  | 23,700   | 7         | 60                      | 2,195,500  | 724       | 8  | 410,000  | 165       |
| Nashville, Tenn.    | <sup>1</sup> 1922 | 282                    | 791,250     | 282       |                       |            |           |  |          |           | 8                       | 228,500    | 76        |  |          |           |
|                     | <sup>2</sup> 1922 | 316                    | 922,600     | 316       | 2                     | 17,000     | 4         |  |          |           | 1                       | 46,100     | 18        |  |          |           |
|                     | <sup>1</sup> 1923 | 335                    | 837,340     | 335       |                       |            |           | 3  | 23,000   | 6         | 11                      | 261,000    | 52        |  |          |           |

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| City and State.     | Period.           | Housekeeping dwellings—Concluded. |                     |  | Nonhousekeeping dwellings. |           |                 |         |         |           | Total new residential buildings. |        |             |
|---------------------|-------------------|-----------------------------------|---------------------|--|----------------------------|-----------|-----------------|---------|---------|-----------|----------------------------------|--------|-------------|
|                     |                   | Total families.                   | Population in 1920. | Ratio of families provided for to each 10,000 of population. | Hotels.                    |           | Lodging houses. |         | Other.  |           |                                  |        |             |
|                     |                   |                                   |                     |  | Number.                    | Cost.     | Number.         | Cost.   | Number. | Cost.     | Number.                          | Cost.  |             |
| Houston, Tex.       | <sup>1</sup> 1922 | 1,668                             | 138,276             | 120.6  |                            |           |                 |         |         |           |                                  | 1,481  | \$4,749,253 |
|                     | <sup>2</sup> 1922 | 1,433                             |                     | 103.6  |                            |           | 1               | \$4,800 | 1       | \$61,000  |                                  | 1,266  | 3,702,142   |
|                     | <sup>1</sup> 1923 | 1,670                             |                     | 120.8  |                            |           |                 |         |         |           |                                  | 1,460  | 4,584,801   |
| Indianapolis, Ind.  | <sup>1</sup> 1922 | 1,970                             | 314,194             | 62.7   | 1                          | \$300,000 |                 |         | 3       | 125,000   |                                  | 1,721  | 6,962,000   |
|                     | <sup>2</sup> 1922 | 2,161                             |                     | 68.8   |                            |           |                 |         | 2       | 578,000   |                                  | 1,470  | 8,735,700   |
|                     | <sup>1</sup> 1923 | 1,933                             |                     | 61.5   |                            |           |                 |         | 2       | 690,900   |                                  | 1,504  | 8,526,346   |
| Jersey City, N. J.  | <sup>1</sup> 1922 | 869                               | 298,103             | 29.2   | 1                          | 225,000   |                 |         |         |           |                                  | 249    | 4,589,853   |
|                     | <sup>2</sup> 1922 | 907                               |                     | 30.4   |                            | 65,000    |                 |         |         |           |                                  | 240    | 3,868,980   |
|                     | <sup>1</sup> 1923 | 1,109                             |                     | 37.2   |                            |           |                 |         |         |           |                                  | 265    | 5,139,050   |
| Kansas City, Kans.  | <sup>1</sup> 1922 | 263                               | 101,177             | 26.0   |                            |           |                 |         |         |           |                                  | 263    | 598,593     |
|                     | <sup>2</sup> 1922 | 252                               |                     | 24.9   |                            |           |                 |         |         |           |                                  | 247    | 615,550     |
|                     | <sup>1</sup> 1923 | 453                               |                     | 44.8   |                            |           |                 |         |         |           |                                  | 445    | 1,045,400   |
| Kansas City, Mo.    | <sup>1</sup> 1922 | 2,176                             | 324,410             | 67.1   |                            |           |                 |         |         |           |                                  | 1,347  | 6,622,900   |
|                     | <sup>2</sup> 1922 | 2,492                             |                     | 76.8   |                            |           |                 |         |         |           |                                  | 1,587  | 7,062,300   |
|                     | <sup>1</sup> 1923 | 4,326                             |                     | 133.3  | 3                          | 524,000   |                 |         | 1       | 400,000   |                                  | 1,846  | 10,399,850  |
| Los Angeles, Calif. | <sup>1</sup> 1922 | 12,253                            | 576,673             | 212.5  | 11                         | 4,930,885 |                 |         |         |           |                                  | 8,820  | 33,402,422  |
|                     | <sup>2</sup> 1922 | 15,780                            |                     | 273.6  | 19                         | 1,348,832 |                 |         |         |           |                                  | 10,261 | 39,882,084  |
|                     | <sup>1</sup> 1923 | 22,036                            |                     | 382.1  | 33                         | 2,943,000 |                 |         |         |           |                                  | 12,693 | 58,005,373  |
| Louisville, Ky.     | <sup>1</sup> 1922 | 799                               | 234,891             | 34.0   |                            |           | 1               | 50,000  |         |           |                                  | 698    | 4,430,000   |
|                     | <sup>2</sup> 1922 | 749                               |                     | 31.9   |                            |           |                 |         | 1       | 1,000,000 |                                  | 687    | 4,097,000   |
|                     | <sup>1</sup> 1923 | 1,380                             |                     | 58.8   | 1                          | 1,750,000 |                 |         | 1       | 250,000   |                                  | 1,305  | 4,508,450   |
| Lowell, Mass.       | <sup>1</sup> 1922 | 184                               | 112,759             | 16.3   |                            |           |                 |         |         |           |                                  | 146    | 641,760     |
|                     | <sup>2</sup> 1922 | 210                               |                     | 18.6   |                            |           |                 |         |         |           |                                  | 143    | 617,265     |
|                     | <sup>1</sup> 1923 | 236                               |                     | 20.9   |                            |           |                 |         | 1       | 50,000    |                                  | 142    | 784,400     |
| Memphis, Tenn.      | <sup>1</sup> 1922 | 1,160                             | 162,351             | 71.5   |                            |           |                 |         |         |           |                                  | 887    | 4,457,174   |
|                     | <sup>2</sup> 1922 | 1,084                             |                     | 66.8   | 1                          | 1,020,034 |                 |         |         |           |                                  | 721    | 4,731,199   |
|                     | <sup>1</sup> 1923 | 1,218                             |                     | 75.0   |                            |           |                 |         |         |           |                                  | 930    | 5,803,500   |
| Milwaukee, Wis.     | <sup>1</sup> 1922 | 1,415                             | 457,147             | 31.0   |                            |           |                 |         |         |           |                                  | 915    | 6,351,398   |
|                     | <sup>2</sup> 1922 | 1,549                             |                     | 33.9   |                            |           |                 |         | 1       | 880,000   |                                  | 936    | 7,550,761   |
|                     | <sup>1</sup> 1923 | 1,627                             |                     | 35.6   | 1                          | 525,000   |                 |         | 4       | 588,000   |                                  | 1,036  | 8,605,950   |
| Minneapolis, Minn.  | <sup>1</sup> 1922 | 2,761                             | 380,582             | 72.5   |                            |           | 1               | 31,000  |         |           |                                  | 1,919  | 10,066,890  |
|                     | <sup>2</sup> 1922 | 1,902                             |                     | 50.0   | 1                          | 150,000   |                 |         | 2       | 73,600    |                                  | 1,537  | 7,450,410   |
|                     | <sup>1</sup> 1923 | 2,726                             |                     | 71.6   |                            |           |                 |         | 1       | 50,000    |                                  | 1,793  | 9,218,105   |
| Nashville, Tenn.    | <sup>1</sup> 1922 | 358                               | 118,342             | 30.3   |                            |           |                 |         | 2       | 313,000   |                                  | 292    | 1,332,750   |
|                     | <sup>2</sup> 1922 | 338                               |                     | 28.6   |                            |           |                 |         |         |           |                                  | 319    | 985,700     |
|                     | <sup>1</sup> 1923 | 393                               |                     | 33.2   |                            |           |                 |         | 7       | 870,000   |                                  | 356    | 1,991,340   |

<sup>1</sup> First 6 months.<sup>2</sup> Last 6 months.

TABLE 4.—NUMBER AND PROPOSED COST OF NEW RESIDENTIAL BUILDINGS COVERED BY PERMITS ISSUED IN 1922 AND IN FIRST HALF OF 1923—Continued.

| City and State.    | Period.           | Housekeeping dwellings. |            |            |                       |                  |            |  |           |            |                         |             |            |  |           |            |
|--------------------|-------------------|-------------------------|------------|------------|-----------------------|------------------|------------|--|-----------|------------|-------------------------|-------------|------------|--|-----------|------------|
|                    |                   | One-family dwellings.   |            |            | Two-family dwellings. |                  |            | One and two family dwellings with stores combined. |           |            | Multi-family dwellings. |             |            | Multi-family dwellings with stores combined. |           |            |
|                    |                   | Num-ber.                | Cost.      | Fami-lies. | Num-ber.              | Cost.            | Fami-lies. | Num-ber.   | Cost.     | Fami-lies. | Num-ber.                | Cost.       | Fami-lies. | Num-ber.                                     | Cost.     | Fami-lies. |
| Newark, N. J.      | <sup>1</sup> 1922 | 112                     | \$907,160  | 112        | 241                   | \$2,589,600      | 482        | 34   | \$415,500 | 59         | 69                      | \$2,666,500 | 652        | 21   | \$679,000 | 142        |
|                    | <sup>2</sup> 1922 | 135                     | 860,659    | 135        | 297                   | 3,397,466        | 594        | 25   | 279,500   | 36         | 72                      | 2,496,520   | 564        | 20   | 547,000   | 116        |
|                    | <sup>1</sup> 1923 | 145                     | 1,013,495  | 145        | 367                   | 4,355,200        | 734        | 22   | 520,500   | 37         | 97                      | 2,816,800   | 693        | 25   | 1,411,700 | 279        |
| New Bedford, Mass. | <sup>1</sup> 1922 | 116                     | 580,000    | 116        | 147                   | 1,176,000        | 294        | 1  | 10,000    | 1          | 2                       | 40,000      | 13         | 3  | 105,000   | 28         |
|                    | <sup>2</sup> 1922 | 99                      | 505,600    | 99         | 159                   | 1,439,000        | 318        | .....  | .....     | .....      | 3                       | 96,000      | 11         | .....  | .....     | .....      |
|                    | <sup>1</sup> 1923 | 104                     | 416,000    | 104        | 178                   | 1,424,000        | 356        | 3  | 30,000    | 3          | 17                      | 170,000     | 76         | 2  | 40,000    | 16         |
| New Haven, Conn.   | <sup>1</sup> 1922 | 51                      | 408,200    | 51         | 62                    | 607,450          | 124        | .....  | .....     | .....      | 23                      | 653,200     | 169        | .....  | .....     | .....      |
|                    | <sup>2</sup> 1922 | 77                      | 650,300    | 77         | 69                    | 641,450          | 138        | .....  | .....     | .....      | 21                      | 752,320     | 188        | .....  | .....     | .....      |
|                    | <sup>1</sup> 1923 | 55                      | 452,700    | 55         | 59                    | 586,400          | 118        | .....  | .....     | .....      | 8                       | 282,000     | 60         | .....  | .....     | .....      |
| New Orleans, La.   | <sup>1</sup> 1922 | 461                     | 1,116,830  | 461        | 325                   | 1,407,375        | 650        | 218  | 522,750   | 436        | 40                      | 316,600     | 125        | 18   | 127,200   | 52         |
|                    | <sup>2</sup> 1922 | 312                     | 842,670    | 312        | 419                   | 1,886,250        | 838        | 160  | 318,890   | 200        | 48                      | 342,900     | 256        | 24   | 107,400   | 96         |
|                    | <sup>1</sup> 1923 | 386                     | 1,246,486  | 386        | 498                   | 2,148,104        | 996        | 151  | 794,115   | 250        | 21                      | 167,100     | 63         | 18   | 102,310   | 54         |
| New York, N. Y.:   |                   |                         |            |            |                       |                  |            |  |           |            |                         |             |            |  |           |            |
| Brooklyn.          | <sup>1</sup> 1922 | 2,772                   | 16,499,330 | 2,772      | 2,784                 | 29,484,245       | 5,568      | 411  | 5,197,500 | 822        | 623                     | 25,828,700  | 5,166      | .....  | .....     | .....      |
|                    | <sup>2</sup> 1922 | 2,521                   | 19,884,780 | 2,521      | 2,417                 | 21,136,450       | 4,834      | 607  | 7,252,000 | 1,214      | 619                     | 30,798,300  | 9,337      | .....  | .....     | .....      |
|                    | <sup>1</sup> 1923 | 4,146                   | 21,880,580 | 4,146      | 2,513                 | 24,006,750       | 5,026      | 504  | 5,919,000 | 1,008      | 1,177                   | 58,364,300  | 13,960     | .....  | .....     | .....      |
| Bronx.             | <sup>1</sup> 1922 | 1,007                   | 10,913,159 | 1,007      | 588                   | ( <sup>1</sup> ) | 1,176      | .....  | .....     | .....      | 247                     | 38,127,000  | 10,025     | .....  | .....     | .....      |
|                    | <sup>2</sup> 1922 | 891                     | 13,421,079 | 891        | 804                   | ( <sup>1</sup> ) | 1,608      | .....  | .....     | .....      | 180                     | 21,864,000  | 5,832      | .....  | .....     | .....      |
|                    | <sup>1</sup> 1923 | 1,383                   | 21,459,200 | 1,383      | 1,074                 | ( <sup>1</sup> ) | 2,148      | .....  | .....     | .....      | 292                     | 46,663,000  | 11,976     | .....  | .....     | .....      |
| Manhattan.         | <sup>1</sup> 1922 | 53                      | 2,185,976  | 53         | .....                 | .....            | .....      | .....  | .....     | .....      | 97                      | 30,375,000  | 5,050      | .....  | .....     | .....      |
|                    | <sup>2</sup> 1922 | 4                       | 107,500    | 4          | 11                    | 184,500          | 22         | .....  | .....     | .....      | 72                      | 26,315,000  | 3,260      | .....  | .....     | .....      |
|                    | <sup>1</sup> 1923 | 5                       | 177,000    | 5          | 9                     | 86,000           | 18         | 6  | 98,000    | 12         | 106                     | 27,293,500  | 4,972      | 14   | 5,950,000 | 961        |
| Queens.            | <sup>1</sup> 1922 | 5,668                   | 28,137,650 | 5,668      | 3,050                 | 16,299,150       | 6,100      | 393  | 3,832,350 | 587        | 232                     | 20,413,600  | 2,746      | 9  | 637,000   | 109        |
|                    | <sup>2</sup> 1922 | 5,360                   | 27,321,590 | 5,360      | 1,777                 | 14,281,550       | 3,554      | 472  | 4,658,600 | 708        | 161                     | 9,364,000   | 2,728      | 5  | 170,000   | 35         |
|                    | <sup>1</sup> 1923 | 6,811                   | 35,885,985 | 6,811      | 2,403                 | 19,745,100       | 4,806      | 356  | 4,209,550 | 561        | 249                     | 15,127,500  | 2,638      | 28   | 833,000   | 172        |
| Richmond.          | <sup>1</sup> 1922 | 1,277                   | 3,672,899  | 1,277      | 170                   | 1,073,400        | 340        | 51   | 367,400   | 73         | 2                       | 800,000     | 152        | 1  | 45,000    | 45         |
|                    | <sup>2</sup> 1922 | 736                     | 2,174,256  | 736        | 106                   | 669,284          | 212        | 26   | 180,100   | 39         | 1                       | 275,902     | 76         | .....  | .....     | .....      |
|                    | <sup>1</sup> 1923 | 1,060                   | 3,992,419  | 1,060      | 311                   | 1,841,700        | 622        | 33   | 272,890   | 39         | .....                   | .....       | .....      | .....  | .....     | .....      |
| Norfolk, Va.       | <sup>1</sup> 1922 | 158                     | 502,505    | 158        | 37                    | 175,550          | 74         | 7  | 31,700    | 8          | 28                      | 734,500     | 265        | 1  | 23,000    | 3          |
|                    | <sup>2</sup> 1922 | 129                     | 607,200    | 129        | 25                    | 156,900          | 50         | .....  | .....     | .....      | 8                       | 152,650     | 45         | .....  | .....     | .....      |
|                    | <sup>1</sup> 1923 | 348                     | 1,542,385  | 348        | 32                    | 172,450          | 64         | .....  | .....     | .....      | 2                       | 19,000      | 12         | 22   | 367,900   | 161        |
| Oakland, Calif.    | <sup>1</sup> 1922 | 1,508                   | 4,868,053  | 1,508      | 35                    | 259,950          | 70         | 22   | 114,450   | 27         | 59                      | 1,021,154   | 402        | 9  | 168,645   | 38         |
|                    | <sup>2</sup> 1922 | 1,705                   | 5,307,885  | 1,705      | 22                    | 118,500          | 44         | .....  | .....     | .....      | 114                     | 1,659,900   | 456        | 16   | 242,900   | 63         |
|                    | <sup>1</sup> 1923 | 2,071                   | 6,492,421  | 2,071      | 17                    | 88,344           | 34         | 20   | 97,250    | 20         | 109                     | 1,469,374   | 439        | 18   | 221,300   | 77         |
| Omaha, Nebr.       | <sup>1</sup> 1922 | 781                     | 3,095,582  | 781        | 22                    | 203,000          | 44         | .....  | .....     | .....      | 5                       | 189,000     | 86         | .....  | .....     | .....      |
|                    | <sup>2</sup> 1922 | 771                     | 3,043,010  | 771        | 19                    | 207,900          | 38         | .....  | .....     | .....      | 10                      | 184,500     | 64         | .....  | .....     | .....      |
|                    | <sup>1</sup> 1923 | 884                     | 3,827,406  | 884        | 51                    | 537,000          | 102        | .....  | .....     | .....      | .....                   | .....       | .....      | 8  | 233,000   | 50         |

[880]

| City and State.    | Period.           | Housekeeping dwellings—Concluded. |                     |  | Nonhousekeeping dwellings. |          |                 |       |         |           | Total new residential buildings. |             |             |
|--------------------|-------------------|-----------------------------------|---------------------|--|----------------------------|----------|-----------------|-------|---------|-----------|----------------------------------|-------------|-------------|
|                    |                   | Total families.                   | Population in 1920. | Ratio of families provided for to each 10,000 of population. | Hotels.                    |          | Lodging houses. |       | Other.  |           |                                  |             |             |
|                    |                   |                                   |                     |  | Number.                    | Cost.    | Number.         | Cost. | Number. | Cost.     | Number.                          | Cost.       |             |
| Newark, N. J.      | <sup>1</sup> 1922 | 1,447                             | 414,524             | 34.9   |                            |          |                 |       | 1       | \$500,000 | 478                              | \$7,757,760 |             |
|                    | <sup>2</sup> 1922 | 1,445                             |                     | 34.9   |                            |          |                 |       | 2       | 16,000    | 551                              | 7,597,145   |             |
|                    | <sup>1</sup> 1923 | 1,888                             |                     | 45.5   | 1                          | \$35,000 |                 |       |         |           | 657                              | 10,152,695  |             |
| New Bedford, Mass. | <sup>1</sup> 1922 | 452                               | 121,217             | 37.3   |                            |          |                 |       |         |           | 269                              | 1,911,000   |             |
|                    | <sup>2</sup> 1922 | 428                               |                     | 35.3   |                            |          |                 |       | 2       | 100,000   | 263                              | 2,140,000   |             |
|                    | <sup>1</sup> 1923 | 555                               |                     | 45.8   |                            |          |                 |       |         |           | 304                              | 2,080,000   |             |
| New Haven, Conn.   | <sup>1</sup> 1922 | 344                               | 162,537             | 21.2   |                            |          |                 |       |         |           | 136                              | 1,668,850   |             |
|                    | <sup>2</sup> 1922 | 403                               |                     | 24.8   |                            |          |                 |       |         |           | 167                              | 2,044,070   |             |
|                    | <sup>1</sup> 1923 | 233                               |                     | 14.3   |                            |          |                 |       |         |           | 122                              | 1,321,100   |             |
| New Orleans, La.   | <sup>1</sup> 1922 | 1,724                             | 387,219             | 44.5   |                            |          |                 |       | 2       | 80,000    | 1,064                            | 3,570,755   |             |
|                    | <sup>2</sup> 1922 | 1,702                             |                     | 44.0   |                            |          |                 |       | 1       | 119,000   | 964                              | 3,617,110   |             |
|                    | <sup>1</sup> 1923 | 1,749                             |                     | 45.2   | 1                          | 168,500  |                 |       |         |           | 1,075                            | 4,626,615   |             |
| New York, N. Y.    | <sup>1</sup> 1922 | 14,328                            | 5,620,048           | 86.7<br>76.5<br>110.9  |                            |          |                 |       |         |           | 6,590                            | 77,009,775  |             |
| Brooklyn           | <sup>2</sup> 1922 | 17,906                            |                     |  |                            | 3        | 860,000         |       |         |           |                                  | 6,167       | 79,931,530  |
|                    | <sup>1</sup> 1923 | 24,140                            |                     |  |                            | 2        | 1,810,000       |       |         |           |                                  | 8,342       | 111,980,630 |
| Bronx              | <sup>1</sup> 1922 | 12,208                            |                     |  |                            |          |                 |       |         |           |                                  | 1,842       | 49,040,159  |
|                    | <sup>2</sup> 1922 | 8,331                             |                     |  |                            |          |                 |       |         |           |                                  | 1,875       | 35,285,079  |
|                    | <sup>1</sup> 1923 | 15,507                            |                     |  |                            |          |                 |       |         |           |                                  | 2,749       | 68,122,200  |
| Manhattan          | <sup>1</sup> 1922 | 5,103                             |                     |  |                            | 5        | 2,950,000       |       |         | 9         | 6,510,000                        | 164         | 42,020,976  |
|                    | <sup>2</sup> 1922 | 3,286                             |                     |  |                            | 8        | 15,050,000      |       |         | 4         | 1,670,000                        | 99          | 43,327,000  |
|                    | <sup>1</sup> 1923 | 5,968                             |                     |  |                            | 2        | 1,740,000       |       |         | 8         | 1,274,000                        | 150         | 36,618,500  |
| Queens             | <sup>1</sup> 1922 | 15,210                            |                     |  |                            | 3        | 111,000         |       |         | 5         | 92,000                           | 9,360       | 69,522,750  |
|                    | <sup>2</sup> 1922 | 12,385                            |                     |  |                            | 1        | 50,000          |       |         | 3         | 500,000                          | 7,779       | 56,345,740  |
|                    | <sup>1</sup> 1923 | 14,988                            |                     |  |                            |          |                 |       |         |           |                                  | 9,847       | 75,801,135  |
| Richmond           | <sup>1</sup> 1922 | 1,887                             |                     |  |                            |          |                 |       |         | 3         | 118,000                          | 1,504       | 6,076,699   |
|                    | <sup>2</sup> 1922 | 1,083                             |                     |  |                            |          |                 |       |         |           |                                  | 889         | 3,299,542   |
|                    | <sup>1</sup> 1923 | 1,721                             |                     |  |                            |          |                 |       |         |           |                                  | 1,404       | 6,107,009   |
| Norfolk, Va.       | <sup>1</sup> 1922 | 508                               | 115,777             | 43.9   |                            |          |                 |       |         | 231       | 1,467,255                        |             |             |
|                    | <sup>2</sup> 1922 | 224                               |                     | 19.3   |                            |          |                 |       |         | 162       | 916,750                          |             |             |
|                    | <sup>1</sup> 1923 | 593                               |                     | 51.2   | 1                          | 65,000   |                 |       |         | 413       | 2,199,035                        |             |             |
| Oakland, Calif.    | <sup>1</sup> 1922 | 2,045                             | 216,261             | 94.6   |                            |          |                 |       |         |           | 1,633                            | 6,412,252   |             |
|                    | <sup>2</sup> 1922 | 2,268                             |                     | 104.9  |                            |          |                 |       |         |           | 1,857                            | 7,329,185   |             |
|                    | <sup>1</sup> 1923 | 2,641                             |                     | 122.1  |                            |          |                 |       |         |           | 2,235                            | 8,368,689   |             |
| Omaha, Nebr.       | <sup>1</sup> 1922 | 911                               | 191,601             | 47.5   |                            |          |                 |       | 1       | 16,000    | 809                              | 3,503,582   |             |
|                    | <sup>2</sup> 1922 | 873                               |                     | 45.6   |                            |          |                 |       |         |           | 800                              | 3,435,410   |             |
|                    | <sup>1</sup> 1923 | 1,036                             |                     | 54.1   | 1                          | 6,000    |                 |       | 3       | 887,000   | 947                              | 5,490,400   |             |

<sup>1</sup> First six months.<sup>2</sup> Last six months.<sup>4</sup> Included with cost of one-family dwellings.<sup>6</sup> Includes cost of two-family dwellings.



TABLE 4.—NUMBER AND PROPOSED COST OF NEW RESIDENTIAL BUILDINGS COVERED BY PERMITS ISSUED IN 1922 AND IN FIRST HALF OF 1923—Continued.

| City and State.        | Period. | Housekeeping dwellings. |            |           |                       |           |           |  |           |           |                         |           |           |  |           |           |
|------------------------|---------|-------------------------|------------|-----------|-----------------------|-----------|-----------|--|-----------|-----------|-------------------------|-----------|-----------|--|-----------|-----------|
|                        |         | One-family dwellings.   |            |           | Two-family dwellings. |           |           | One and two-family dwellings with stores combined. |           |           | Multi-family dwellings. |           |           | Multi-family dwellings with stores combined. |           |           |
|                        |         | Number.                 | Cost.      | Families. | Number.               | Cost.     | Families. | Number.  | Cost.     | Families. | Number.                 | Cost.     | Families. | Number.                                      | Cost.     | Families. |
| Paterson, N. J. ....   | 1 1922  | 119                     | \$644,650  | 119       | 102                   | \$727,479 | 204       | .....  | .....     | .....     | 12                      | \$204,350 | 36        | 16   | \$216,940 | 48        |
|                        | 2 1922  | 94                      | 545,066    | 94        | 91                    | 626,091   | 182       | 4  | \$25,900  | 8         | 2                       | 17,000    | 6         | .....  | .....     | .....     |
|                        | 1 1923  | 110                     | 611,230    | 110       | 145                   | 1,022,455 | 290       | 6  | 23,500    | 9         | 8                       | 294,000   | 90        | 3  | 37,000    | 12        |
| Philadelphia, Pa. .... | 1 1922  | 4,836                   | 23,180,325 | 4,836     | 76                    | 593,970   | 152       | 209  | 1,347,100 | 236       | 23                      | 1,253,000 | 242       | 3  | 58,500    | 14        |
|                        | 2 1922  | 4,180                   | 22,079,535 | 4,180     | 37                    | 365,115   | 74        | 223  | 1,583,200 | 253       | 31                      | 3,169,500 | 435       | 4  | 132,000   | 31        |
|                        | 1 1923  | 5,028                   | 28,248,900 | 5,028     | 38                    | 323,500   | 76        | 212  | 1,544,030 | 222       | 62                      | 3,436,840 | 628       | .....  | .....     | .....     |
| Pittsburgh, Pa. ....   | 1 1922  | 771                     | 1,314,382  | 771       | 139                   | 1,437,030 | 378       | 19   | 163,079   | 30        | 41                      | 887,345   | 209       | 5  | 132,600   | 21        |
|                        | 2 1922  | 660                     | 4,005,109  | 660       | 71                    | 716,000   | 142       | 17   | 140,200   | 23        | 25                      | 262,600   | 192       | 7  | 2,904,000 | 385       |
|                        | 1 1923  | 857                     | 5,723,343  | 857       | 183                   | 1,982,000 | 366       | 27   | 280,200   | 41        | 20                      | 549,800   | 162       | 6  | 431,000   | 122       |
| Portland, Oreg. ....   | 1 1922  | 1,865                   | 6,786,250  | 1,865     | 9                     | 53,000    | 18        | .....  | .....     | .....     | 19                      | 617,400   | 143       | .....  | .....     | .....     |
|                        | 2 1922  | 1,447                   | 5,284,770  | 1,447     | 10                    | 50,000    | 20        | .....  | .....     | .....     | 13                      | 475,000   | 165       | .....  | .....     | .....     |
|                        | 1 1923  | 1,557                   | 5,650,370  | 1,557     | 63                    | 336,500   | 126       | .....  | .....     | .....     | 18                      | 980,500   | 378       | .....  | .....     | .....     |
| Providence, R. I. .... | 1 1923  | 108                     | 1,258,400  | 108       | 219                   | 2,537,600 | 438       | 2  | 22,200    | 4         | 70                      | 1,009,200 | 271       | .....  | .....     | .....     |
|                        | 2 1922  | 113                     | 432,950    | 113       | 14                    | 91,000    | 28        | .....  | .....     | .....     | 1                       | 20,000    | 10        | 1  | 45,000    | 10        |
|                        | 1 1923  | 74                      | 285,600    | 74        | 30                    | 122,100   | 60        | 2  | 6,500     | 2         | 2                       | 44,500    | 30        | 2  | 9,800     | 6         |
| Reading, Pa. ....      | 2 1922  | 282                     | 762,100    | 282       | .....                 | .....     | .....     | 2  | 9,000     | 2         | 7                       | 76,000    | 31        | 1  | 22,000    | 4         |
|                        | 1 1922  | 503                     | 3,103,468  | 503       | 19                    | 87,644    | 38        | 13   | 65,124    | 25        | 15                      | 687,500   | 135       | .....  | .....     | .....     |
|                        | 2 1922  | 437                     | 2,175,855  | 437       | 31                    | 246,356   | 62        | 7  | 68,476    | 10        | 9                       | 315,000   | 135       | .....  | .....     | .....     |
| Richmond, Va. ....     | 1 1923  | 519                     | 3,325,300  | 519       | 40                    | 255,080   | 80        | 29   | 185,216   | 29        | 24                      | 956,000   | 240       | .....  | .....     | .....     |
|                        | 1 1922  | 607                     | 3,496,975  | 607       | 109                   | 934,350   | 218       | 8  | 94,300    | 12        | 4                       | 200,000   | 70        | .....  | .....     | .....     |
|                        | 2 1922  | 604                     | 3,756,450  | 604       | 109                   | 967,700   | 218       | 16   | 170,550   | 23        | 7                       | 390,000   | 73        | 2  | 63,000    | 40        |
| Rochester, N. Y. ....  | 1 1923  | 666                     | 3,982,900  | 666       | 145                   | 1,389,400 | 290       | 15   | 237,500   | 24        | 3                       | 75,000    | 29        | 10   | 220,500   | 51        |
|                        | 2 1922  | 688                     | 2,648,525  | 688       | 278                   | 1,934,250 | 556       | .....  | .....     | .....     | 12                      | 860,750   | 174       | .....  | .....     | .....     |
|                        | 1 1922  | 777                     | 2,835,200  | 777       | .....                 | .....     | .....     | 5  | 53,000    | 10        | 352                     | 3,391,500 | 1,760     | 12   | 138,100   | 48        |
| St. Louis, Mo. ....    | 1 1923  | 884                     | 3,375,035  | 884       | 265                   | 1,568,750 | 530       | 21   | 181,800   | 28        | 246                     | 4,113,700 | 1,287     | 4  | 62,000    | 15        |
|                        | 2 1922  | 955                     | 3,860,205  | 955       | 38                    | 419,638   | 76        | 38   | 472,142   | 62        | 32                      | 1,254,104 | 234       | .....  | .....     | .....     |
|                        | 1 1923  | 879                     | 3,727,551  | 879       | 53                    | 2,584,320 | 106       | 13   | 52,600    | 13        | 28                      | 1,042,500 | 168       | 12   | 154,620   | 42        |
| St. Paul, Minn. ....   | 2 1922  | 1,013                   | 4,819,026  | 1,013     | 42                    | 459,156   | 84        | .....  | .....     | .....     | 25                      | 1,033,840 | 262       | 15   | 388,880   | 80        |
|                        | 1 1923  | 389                     | 1,226,910  | 389       | 3                     | 9,500     | 6         | 2  | 7,000     | 4         | 3                       | 44,000    | 20        | 1  | 45,000    | 15        |
|                        | 2 1922  | 379                     | 1,318,125  | 379       | 15                    | 59,500    | 30        | .....  | .....     | .....     | 5                       | 98,000    | 50        | .....  | .....     | .....     |
| Salt Lake City, Utah.. | 1 1923  | 632                     | 1,500,100  | 632       | 3                     | 13,000    | 6         | 1  | 5,000     | 2         | 4                       | 346,000   | 221       | .....  | .....     | .....     |
|                        | 2 1922  | 889                     | 2,275,710  | 889       | 18                    | 219,000   | 36        | 1  | 12,000    | 2         | 3                       | 35,500    | 12        | .....  | .....     | .....     |
|                        | 1 1923  | 992                     | 3,355,699  | 992       | 306                   | 1,376,283 | 612       | 23   | 234,950   | 48        | 184                     | 5,495,398 | 1,951     | .....  | .....     | .....     |
| San Antonio, Tex. .... | 2 1922  | 790                     | 5,169,689  | 790       | 292                   | 2,061,520 | 584       | 7  | 229,506   | 7         | 113                     | 3,857,710 | 1,291     | 3  | 33,800    | 8         |
|                        | 1 1923  | 1,381                   | 4,742,524  | 1,381     | 359                   | 2,678,035 | 718       | 27   | 262,595   | 36        | 109                     | 6,483,530 | 1,577     | 11   | 124,875   | 45        |
|                        | 2 1922  | 82                      | 316,990    | 82        | 11                    | 75,900    | 22        | 16   | 443,525   | 30        | 8                       | 44,600    | 26        | .....  | .....     | .....     |
| Scranton, Pa. ....     | 1 1922  | 114                     | 520,035    | 114       | 29                    | 202,200   | 58        | 13   | 46,811    | 15        | 3                       | 31,800    | 10        | 19   | 74,411    | 49        |
|                        | 2 1922  | 90                      | 385,450    | 90        | 16                    | 122,300   | 32        | 11   | 32,549    | 14        | 10                      | 56,050    | 38        | .....  | .....     | .....     |

| City and State.           | Period.           | Housekeeping dwellings—Concluded. |                     |  | Nonhousekeeping dwellings. |             |                 |          |         |          | Total new residential buildings. |             |
|---------------------------|-------------------|-----------------------------------|---------------------|--|----------------------------|-------------|-----------------|----------|---------|----------|----------------------------------|-------------|
|                           |                   | Total families.                   | Population in 1920. | Ratio of families provided for to each 10,000 of population. | Hotels.                    |             | Lodging houses. |          | Other.  |          |                                  |             |
|                           |                   |                                   |                     |  | Number.                    | Cost.       | Number.         | Cost.    | Number. | Cost.    | Number.                          | Cost.       |
| Paterson, N. J. ....      | <sup>1</sup> 1922 | 407                               | 135,875             | 30.0   |                            |             |                 |          |         |          | 249                              | \$1,793,419 |
|                           | <sup>2</sup> 1922 | 290                               |                     | 21.3   |                            |             |                 |          |         |          | 191                              | 1,214,057   |
|                           | <sup>1</sup> 1923 | 511                               |                     | 37.6   |                            |             |                 |          |         |          | 272                              | 1,988,185   |
| Philadelphia, Pa. ....    | <sup>1</sup> 1922 | 5,480                             | 1,823,779           | 30.0   | 2                          | \$2,600,000 | 1               | \$25,000 | 1       | \$90,000 | 5,151                            | 29,147,895  |
|                           | <sup>2</sup> 1922 | 4,973                             |                     | 27.3   |                            |             |                 |          | 5       | 578,585  | 4,480                            | 27,907,935  |
|                           | <sup>1</sup> 1923 | 5,954                             |                     | 32.6   | 4                          | 4,868,565   |                 |          | 1       | 600,000  | 5,345                            | 39,021,835  |
| Pittsburgh, Pa. ....      | <sup>1</sup> 1922 | 1,309                             | 588,343             | 22.2   |                            |             |                 |          | 6       | 584,000  | 981                              | 4,518,436   |
|                           | <sup>2</sup> 1922 | 1,402                             |                     | 23.8   |                            |             |                 |          | 3       | 192,950  | 783                              | 8,220,859   |
|                           | <sup>1</sup> 1923 | 1,548                             |                     | 26.3   |                            |             |                 |          | 2       | 35,000   | 1,095                            | 9,001,343   |
| Portland, Oreg. ....      | <sup>1</sup> 1922 | 2,026                             | 258,288             | 78.4   | 1                          | 500,000     | 2               | 89,000   |         |          | 1,896                            | 8,045,650   |
|                           | <sup>2</sup> 1922 | 1,632                             |                     | 63.2   | 3                          | 100,000     |                 |          | 1       | 40,000   | 1,474                            | 5,949,770   |
|                           | <sup>1</sup> 1923 | 2,061                             |                     | 79.8   | 1                          | 200,000     |                 |          | 2       | 79,000   | 1,641                            | 7,246,370   |
| Providence, R. I. ....    | <sup>1</sup> 1923 | 821                               | 237,595             | 34.6   |                            |             |                 |          |         |          | 399                              | 4,827,400   |
| Reading, Pa. ....         | <sup>1</sup> 1922 | 161                               | 107,784             | 14.9   |                            |             |                 |          |         |          | 129                              | 588,950     |
|                           | <sup>2</sup> 1922 | 172                               |                     | 16.0   |                            |             |                 |          |         |          | 110                              | 468,500     |
|                           | <sup>1</sup> 1923 | 319                               |                     | 29.6   |                            |             |                 |          |         |          | 292                              | 889,100     |
| Richmond, Va. ....        | <sup>1</sup> 1922 | 701                               | 171,567             | 40.9   |                            |             |                 |          | 5       | 375,500  | 555                              | 4,319,236   |
|                           | <sup>2</sup> 1922 | 644                               |                     | 37.5   |                            |             |                 |          |         |          | 484                              | 2,805,687   |
|                           | <sup>1</sup> 1923 | 868                               |                     | 50.6   |                            |             |                 |          |         |          | 612                              | 4,721,596   |
| Rochester, N. Y. ....     | <sup>1</sup> 1922 | 907                               | 295,750             | 30.7   | 1                          | 320,000     |                 |          |         |          | 729                              | 5,045,625   |
|                           | <sup>2</sup> 1922 | 958                               |                     | 32.4   |                            |             |                 |          |         |          | 738                              | 5,346,700   |
|                           | <sup>1</sup> 1923 | 1,060                             |                     | 35.8   |                            |             |                 |          |         |          | 839                              | 5,905,300   |
| St. Louis, Mo. ....       | <sup>1</sup> 1922 | 1,418                             | 772,897             | 18.3   |                            |             |                 |          |         |          | 978                              | 5,443,525   |
|                           | <sup>2</sup> 1922 | 2,595                             |                     | 33.6   |                            |             |                 |          |         |          | 1,146                            | 6,417,800   |
|                           | <sup>1</sup> 1923 | 2,744                             |                     | 35.5   | 5                          | 1,310,000   |                 |          | 2       | 725,000  | 1,427                            | 11,335,785  |
| St. Paul, Minn. ....      | <sup>1</sup> 1922 | 1,327                             | 234,698             | 56.5   |                            |             |                 |          |         |          | 1,063                            | 6,006,089   |
|                           | <sup>2</sup> 1922 | 1,208                             |                     | 51.5   | 1                          | 1,600,000   |                 |          |         |          | 986                              | 9,161,591   |
|                           | <sup>1</sup> 1923 | 1,444                             |                     | 61.5   |                            |             |                 | 1        | 1,000   |          | 1,101                            | 6,701,902   |
| Salt Lake City, Utah ..   | <sup>1</sup> 1922 | 434                               | 118,110             | 36.7   |                            |             |                 |          |         |          | 398                              | 1,332,410   |
|                           | <sup>2</sup> 1922 | 459                               |                     | 38.9   |                            |             |                 |          | 1       | 280,000  | 400                              | 1,755,625   |
|                           | <sup>1</sup> 1923 | 861                               |                     | 72.9   |                            |             |                 |          | 1       | 50,000   | 641                              | 1,914,100   |
| San Antonio, Tex. ....    | <sup>1</sup> 1923 | 939                               | 161,379             | 58.2   |                            |             |                 |          |         |          | 911                              | 2,542,210   |
| San Francisco, Calif. ... | <sup>1</sup> 1922 | 3,603                             | 508,676             | 70.8   |                            |             | 2               | 360,000  |         |          | 1,507                            | 10,822,340  |
|                           | <sup>2</sup> 1922 | 2,680                             |                     | 52.7   | 1                          | 375,000     |                 |          |         |          | 1,206                            | 11,727,225  |
|                           | <sup>1</sup> 1923 | 3,757                             |                     | 73.9   | 2                          | 185,000     |                 |          | 4       | 378,100  | 1,893                            | 14,854,659  |
| Scranton, Pa. ....        | <sup>1</sup> 1922 | 160                               | 137,783             | 11.6   |                            |             |                 |          |         |          | 117                              | 881,015     |
|                           | <sup>2</sup> 1922 | 246                               |                     | 17.9   |                            |             |                 |          |         |          | 178                              | 875,257     |
|                           | <sup>1</sup> 1923 | 174                               |                     | 12.6   |                            |             |                 |          |         |          | 127                              | 596,349     |

<sup>1</sup> First six months.<sup>2</sup> Last six months.

TABLE 4.—NUMBER AND PROPOSED COST OF NEW RESIDENTIAL BUILDINGS COVERED BY PERMITS ISSUED IN 1922 AND IN FIRST HALF OF 1923—Concluded.

| City and State.        | Period. | Housekeeping dwellings. |               |           |                       |               |           |  |              |           |                         |               |           |  |              |           |
|------------------------|---------|-------------------------|---------------|-----------|-----------------------|---------------|-----------|--|--------------|-----------|-------------------------|---------------|-----------|--|--------------|-----------|
|                        |         | One-family dwellings.   |               |           | Two-family dwellings. |               |           | One and two family dwellings with stores combined. |              |           | Multi-family dwellings. |               |           | Multi-family dwellings with stores combined. |              |           |
|                        |         | Number.                 | Cost.         | Families. | Number.               | Cost.         | Families. | Number.  | Cost.        | Families. | Number.                 | Cost.         | Families. | Number.                                      | Cost.        | Families. |
| Seattle, Wash.....     | 1 1922  | 990                     | \$2,972,645   | 990       | 20                    | \$40,000      | 40        | 10   | \$12,000     | 16        | 39                      | \$2,144,500   | 780       | .....  | .....        | .....     |
|                        | 2 1922  | 893                     | 2,587,085     | 893       | .....                 | .....         | .....     | .....  | .....        | .....     | 28                      | 804,300       | 201       | .....  | .....        | .....     |
|                        | 1 1923  | 1,166                   | 3,547,825     | 1,166     | .....                 | .....         | .....     | .....  | .....        | .....     | 39                      | 2,624,000     | 656       | .....  | .....        | .....     |
| Spokane, Wash.....     | 1 1922  | 290                     | 867,875       | 290       | 2                     | 10,500        | 4         | 1  | 700          | 1         | .....                   | .....         | .....     | 1  | \$3,500      | 3         |
|                        | 2 1922  | 215                     | 643,525       | 215       | .....                 | .....         | .....     | .....  | .....        | .....     | 1                       | 30,000        | 4         | .....  | .....        | .....     |
|                        | 1 1923  | 212                     | 628,110       | 212       | .....                 | .....         | .....     | 1  | 3,000        | 1         | .....                   | .....         | .....     | .....  | .....        | .....     |
| Springfield, Mass..... | 1 1922  | 259                     | 914,015       | 259       | 160                   | 997,800       | 320       | 1  | 1,500        | 1         | 41                      | 657,500       | 112       | .....  | .....        | .....     |
|                        | 2 1922  | 195                     | 660,100       | 195       | 223                   | 1,420,400     | 446       | .....  | .....        | .....     | 32                      | 740,000       | 369       | 3  | 56,500       | 21        |
|                        | 1 1923  | 190                     | 649,050       | 190       | 193                   | 1,157,900     | 386       | .....  | .....        | .....     | 20                      | 537,000       | 157       | 2  | 55,000       | 20        |
| Syracuse, N. Y.....    | 1 1922  | 236                     | 1,289,375     | 236       | 78                    | 547,800       | 156       | 6  | 36,000       | 6         | 5                       | 66,000        | 20        | .....  | .....        | .....     |
|                        | 2 1922  | 256                     | 1,525,850     | 256       | 95                    | 757,400       | 190       | 3  | 56,000       | 4         | 9                       | 399,000       | 100       | .....  | .....        | .....     |
|                        | 1 1923  | 215                     | 645,000       | 215       | 82                    | 574,000       | 164       | 5  | 42,000       | 6         | 1                       | 8,000         | 3         | .....  | .....        | .....     |
| Toledo, Ohio.....      | 1 1922  | 418                     | 1,475,950     | 418       | 46                    | 306,800       | 92        | 21   | 102,395      | 29        | 2                       | 51,000        | 16        | .....  | .....        | .....     |
|                        | 2 1922  | 412                     | 1,476,419     | 412       | 24                    | 182,200       | 48        | 18   | 107,400      | 21        | 17                      | 175,250       | 78        | 2  | 95,000       | 12        |
|                        | 1 1923  | 618                     | 2,292,120     | 618       | 60                    | 572,790       | 120       | 21   | 164,800      | 25        | 2                       | 510,000       | 24        | .....  | .....        | .....     |
| Trenton, N. J.....     | 1 1922  | 331                     | 1,278,569     | 331       | .....                 | .....         | .....     | 8  | 65,231       | 12        | 1                       | 8,000         | 3         | .....  | .....        | .....     |
|                        | 2 1922  | 191                     | 780,200       | 191       | 2                     | 10,000        | 4         | 11   | 57,521       | 12        | .....                   | .....         | .....     | 1  | 28,000       | 3         |
|                        | 1 1923  | 353                     | 1,424,136     | 353       | 8                     | 32,000        | 16        | 12   | 108,356      | 13        | 1                       | 4,000         | 4         | .....  | .....        | .....     |
| Washington, D. C.....  | 1 1922  | 1,448                   | 10,147,882    | 1,448     | .....                 | .....         | .....     | 19   | 347,500      | 30        | 40                      | 5,780,500     | 925       | 3  | 50,000       | 13        |
|                        | 2 1922  | 1,195                   | 8,110,220     | 1,195     | .....                 | .....         | .....     | 25   | 602,000      | 34        | 41                      | 6,202,000     | 1,378     | 2  | 1,015,000    | 243       |
|                        | 1 1923  | 1,265                   | 11,089,800    | 1,265     | .....                 | .....         | .....     | 3  | 32,000       | 4         | 38                      | 5,800,000     | 1,181     | .....  | .....        | .....     |
| Wilmington, Del.....   | 1 1922  | 58                      | 238,400       | 58        | 1                     | 15,000        | 2         | 7  | 45,879       | 9         | .....                   | .....         | .....     | 1  | 23,000       | 4         |
|                        | 2 1922  | 44                      | 209,715       | 44        | 1                     | 12,500        | 2         | 4  | 32,698       | 5         | 1                       | 6,000         | 4         | .....  | .....        | .....     |
|                        | 1 1923  | 139                     | 680,074       | 139       | .....                 | .....         | .....     | 8  | 43,750       | 15        | .....                   | .....         | .....     | .....  | .....        | .....     |
| Worcester, Mass.....   | 1 1922  | 212                     | 795,535       | 212       | 52                    | 471,100       | 104       | 6  | 54,500       | 9         | 12                      | 112,300       | 36        | 1  | 8,000        | 3         |
|                        | 2 1922  | 207                     | 952,975       | 207       | 67                    | 577,400       | 134       | 2  | 29,200       | 4         | 22                      | 351,500       | 92        | 4  | 124,000      | 19        |
|                        | 1 1923  | 236                     | 962,500       | 236       | 79                    | 822,500       | 158       | 8  | 75,300       | 13        | 24                      | 367,100       | 92        | 5  | 168,900      | 27        |
| Yonkers, N. Y.....     | 1 1922  | 239                     | 1,829,350     | 239       | 33                    | 302,700       | 66        | 2  | 9,400        | 2         | 19                      | 620,700       | 156       | 1  | 42,000       | 4         |
|                        | 2 1922  | 98                      | 1,616,300     | 98        | 42                    | 415,800       | 84        | 2  | 31,800       | 3         | 6                       | 127,000       | 27        | 2  | 70,000       | 7         |
|                        | 1 1923  | 160                     | 1,533,000     | 160       | 25                    | 283,400       | 50        | 3  | 28,000       | 4         | 14                      | 994,000       | 175       | 3  | 213,000      | 48        |
| Youngstown, Ohio.....  | 1 1922  | 226                     | 1,015,770     | 226       | 9                     | 73,000        | 18        | 8  | 75,000       | 12        | 5                       | 77,000        | 25        | .....  | .....        | .....     |
|                        | 2 1922  | 325                     | 1,546,920     | 325       | 15                    | 158,000       | 30        | 12   | 85,000       | 18        | 10                      | 154,000       | 50        | 2  | 120,000      | 30        |
|                        | 1 1923  | 397                     | 1,990,450     | 397       | 17                    | 110,800       | 34        | 11   | 89,700       | 20        | 3                       | 84,000        | 9         | 5  | 105,000      | 26        |
| Total.....             | 1 1922  | 63,892                  | \$275,448,142 | 63,892    | 14,549                | \$100,079,393 | 29,098    | 2,026  | \$18,519,252 | 3,253     | 4,209                   | \$211,115,378 | 49,291    | 277  | \$7,581,009  | 1,715     |
|                        | 2 1922  | 61,669                  | \$279,010,828 | 61,669    | 14,259                | \$98,389,057  | 28,518    | 2,156  | \$21,190,302 | 3,401     | 3,756                   | \$181,691,358 | 49,571    | 348  | \$13,817,850 | 2,495     |
|                        | 1 1923  | 79,850                  | \$356,942,709 | 79,850    | 18,323                | \$128,602,766 | 36,646    | 2,002  | \$20,165,333 | 3,157     | 5,436                   | \$284,798,825 | 72,771    | 452  | \$24,658,617 | 4,890     |

| City and State.        | Period.           | Housekeeping dwellings—Concluded. |                     |  | Nonhousekeeping dwellings. |             |                 |           |         |            | Total new residential buildings. |             |
|------------------------|-------------------|-----------------------------------|---------------------|--|----------------------------|-------------|-----------------|-----------|---------|------------|----------------------------------|-------------|
|                        |                   | Total families.                   | Population in 1920. | Ratio of families provided for to each 10,000 of population. | Hotels.                    |             | Lodging houses. |           | Other.  |            |                                  |             |
|                        |                   |                                   |                     |  | Number.                    | Cost.       | Number.         | Cost.     | Number. | Cost.      | Number.                          | Cost.       |
| Seattle, Wash.....     | <sup>1</sup> 1922 | 1,826                             | 315,312             | 57.9   |                            |             | 1               | \$3,000   | 2       | \$145,000  | 1,062                            | \$5,317,145 |
|                        | <sup>2</sup> 1922 | 1,094                             |                     | 34.7   |                            |             | 2               | 7,300     |         |            | 923                              | 3,398,685   |
|                        | <sup>1</sup> 1923 | 1,822                             |                     | 57.8   | 1                          | \$3,500,000 |                 |           |         |            | 1,206                            | 9,671,825   |
| Spokane, Wash.....     | <sup>1</sup> 1922 | 298                               | 104,437             | 28.5   |                            |             |                 |           |         |            | 294                              | 882,575     |
|                        | <sup>2</sup> 1922 | 219                               |                     | 21.0   |                            |             |                 |           |         |            | 216                              | 673,525     |
|                        | <sup>1</sup> 1923 | 213                               |                     | 20.4   |                            |             |                 |           |         |            | 213                              | 631,110     |
| Springfield, Mass..... | <sup>1</sup> 1922 | 692                               | 129,614             | 53.4   |                            |             | 1               | 226,000   |         |            | 462                              | 2,796,815   |
|                        | <sup>2</sup> 1922 | 1,031                             |                     | 79.5   |                            |             |                 |           |         |            | 453                              | 2,877,000   |
|                        | <sup>1</sup> 1923 | 753                               |                     | 58.1   |                            |             |                 |           |         |            | 405                              | 2,398,950   |
| Syracuse, N. Y.....    | <sup>1</sup> 1922 | 418                               | 171,717             | 24.3   |                            |             |                 |           | 1       | 60,000     | 326                              | 1,999,175   |
|                        | <sup>2</sup> 1922 | 550                               |                     | 32.0   | 1                          | 2,493,390   |                 |           |         |            | 364                              | 5,231,640   |
|                        | <sup>1</sup> 1923 | 388                               |                     | 22.6   |                            |             |                 |           | 1       | 50,000     | 304                              | 1,319,000   |
| Toledo, Ohio.....      | <sup>1</sup> 1922 | 555                               | 243,164             | 22.8   |                            |             |                 |           |         |            | 487                              | 1,936,145   |
|                        | <sup>2</sup> 1922 | 571                               |                     | 23.5   |                            |             |                 |           |         |            | 473                              | 2,036,269   |
|                        | <sup>1</sup> 1923 | 787                               |                     | 32.4   |                            |             |                 |           |         |            | 701                              | 3,539,710   |
| Trenton, N. J.....     | <sup>1</sup> 1922 | 346                               | 119,289             | 29.0   |                            |             |                 |           |         |            | 340                              | 1,351,800   |
|                        | <sup>2</sup> 1922 | 210                               |                     | 17.6   |                            |             |                 |           | 2       | 162,000    | 207                              | 1,037,721   |
|                        | <sup>1</sup> 1923 | 386                               |                     | 32.4   |                            |             |                 |           |         |            | 374                              | 1,568,492   |
| Washington, D. C.....  | <sup>1</sup> 1922 | 2,416                             | 437,571             | 55.2   |                            |             |                 |           | 2       | 85,000     | 1,512                            | 16,410,882  |
|                        | <sup>2</sup> 1922 | 2,850                             |                     | 65.1   | 2                          | 1,678,350   |                 |           | 1       | 10,000     | 1,266                            | 17,617,570  |
|                        | <sup>1</sup> 1923 | 2,450                             |                     | 56.0   | 1                          | 5,000,000   |                 |           |         |            | 1,307                            | 21,921,800  |
| Wilmington, Del.....   | <sup>1</sup> 1922 | 73                                | 110,168             | 6.6  |                            |             |                 |           |         |            | 67                               | 322,279     |
|                        | <sup>2</sup> 1922 | 55                                |                     | 5.0  |                            |             |                 |           |         |            | 50                               | 260,913     |
|                        | <sup>1</sup> 1923 | 154                               |                     | 14.0   |                            |             |                 |           | 1       | 372,863    | 148                              | 1,096,687   |
| Worcester, Mass.....   | <sup>1</sup> 1922 | 364                               | 179,754             | 20.2   |                            |             |                 |           | 1       | 2,000      | 284                              | 1,443,435   |
|                        | <sup>2</sup> 1922 | 456                               |                     | 25.4   |                            |             |                 |           |         |            | 302                              | 2,035,075   |
|                        | <sup>1</sup> 1923 | 526                               |                     | 29.3   |                            |             |                 |           | 1       | 64,000     | 353                              | 2,460,300   |
| Yonkers, N. Y.....     | <sup>1</sup> 1922 | 467                               | 100,176             | 46.6   | 1                          | 28,000      |                 |           | 1       | 320,000    | 296                              | 3,152,150   |
|                        | <sup>2</sup> 1922 | 219                               |                     | 21.9   |                            |             |                 |           | 2       | 118,700    | 152                              | 2,379,600   |
|                        | <sup>1</sup> 1923 | 437                               |                     | 43.6   |                            |             |                 |           |         |            | 205                              | 3,051,400   |
| Youngstown, Ohio.....  | <sup>1</sup> 1922 | 281                               | 132,358             | 21.2   |                            |             |                 |           |         |            | 248                              | 1,240,770   |
|                        | <sup>2</sup> 1922 | 453                               |                     | 34.2   |                            |             |                 |           |         |            | 364                              | 2,043,920   |
|                        | <sup>1</sup> 1923 | 486                               |                     | 36.7   |                            |             |                 |           |         |            | 433                              | 2,379,950   |
| Total.....             | <sup>1</sup> 1922 | 147,249                           | 26,925,750          | 54.7   | 41                         | 16,601,185  | 12              | 1,102,000 | 55      | 11,751,775 | 85,061                           | 642,198,134 |
|                        | <sup>2</sup> 1922 | 145,654                           | 26,925,750          | 54.1   | 59                         | 47,019,606  | 5               | 172,100   | 51      | 10,440,535 | 82,303                           | 651,691,636 |
|                        | <sup>1</sup> 1923 | 197,809                           | 27,431,206          | 72.1   | 98                         | 61,392,465  | 2               | 16,000    | 51      | 8,590,663  | 106,214                          | 885,167,378 |

<sup>1</sup> First six months.<sup>2</sup> Last six months.<sup>3</sup> See notes to details.

Report of Illinois Building Investigation Commission.<sup>1</sup>

THE report of the Illinois Building Investigation Commission, which was appointed in 1921, describes briefly the housing situation in Chicago. It devotes the major part of its space to price-fixing combinations in the building trades, contractors' associations, and labor unions, and to the financing of building operations. The investments of insurance companies are also discussed, and recommendations are made for the improvement of the general situation.

It is pointed out that in Chicago housing construction fell off sharply during the war, that its recovery has been slow, and that 1922 was the first year showing anything like a return to normal building activity. For four years before the United States entered the war the number of families annually provided for by new housing ranged from 18,850 in 1913 to 24,412 in 1916. Thereafter the annual provision was as follows:

|                       | Number of families<br>accommodated. |
|-----------------------|-------------------------------------|
| 1917.....             | 7,624                               |
| 1918.....             | 1,946                               |
| 1919.....             | 8,960                               |
| 1920.....             | 1,917                               |
| 1921.....             | 11,316                              |
| 1922 (11 months)..... | 22,573                              |

The annual increase in the population of Chicago is conservatively estimated at about 52,000. Allowing three persons to a family living in an apartment, and five to a family in a dwelling house, the commission points out that the building of 11 months of 1922 was more than sufficient to provide for that year's increase in population. There seems no reason why the rate should fall off materially, and the prospect of making up the accumulated arrearage is considered good.

At the time the commission was appointed there was a bad situation in the Chicago building industry. Extortion, graft, and illegal combinations were believed to be common, and there were outbursts of bombing and other forms of violence which were supposed to be part of a plan for upholding these conditions. Naturally the commission found difficulty in compelling witnesses to reveal the truth.

This applied not only when the inquiry was directed to the actions of persons who happened to be labor leaders, but also when the commission considered the malignant effects of certain combinations of contractors, manufacturers, employers, and price-fixing associations. \* \* \* The commission found members of these various groups frequently linked arm in arm in the same conspiracy. In fact, these federated agencies had fastened upon the public a system of unparalleled iniquity, had become a power of themselves, and brazenly ignored local, State, and Federal laws.

Those practicing this system had intrenched themselves so securely that it would have been almost impossible to overthrow them had not the better elements of the building industry, as well as good citizens generally, rallied to the cause. As it was, the laws were found to be inadequate to deal with price-fixing associations, but a number of criminal charges were successfully pressed. As a result, it is stated, "labor graft, bombings, and sluggings in the

<sup>1</sup>Illinois. General Assembly. Building Investigation Commission. Report. Springfield, 1923. 109 pp.



building industry have practically ceased," and while the cost of building is still high, "yet it must be remembered that all this building has been free from the imposition of graft, but it is still subject to the burdens of artificial prices caused by combinations of material men."

Turning to these combinations, the report gives a number of details as to methods used to keep up prices, restrict production, and divide the selling field in such a way as to prevent competition and maintain virtual monopolies. A number of devices were found in use. In one case the nominal competitors established a school for training estimators, "so that the estimates arrived at by these estimators working for the presumably competing companies would coincide." In the case of millwork an agreement was entered into between the Carpenter Contractors' Association and the Carpenters' District Council that there should be no restriction upon the use of manufactured material except as to nonunion and prison-made goods. Then all millwork manufactured outside of Chicago, except the products of two specified plants, was denominated "nonunion millwork," which under the agreement was prohibited.

The evidence shows that the operation of the aforesaid arrangement resulted in a practical monopoly in favor of the Chicago manufacturers' millwork to the exclusion of practically all outside materials. Consequently, the Chicago manufacturers have dictated the price for their product, and, as a result, it has risen approximately 200 per cent within the past three years.

Again, the manufacture of common brick is practically controlled by an association which assigns to each manufacturer a certain quota of brick which he is permitted to deliver during the year, and close watch is kept of the amount actually made and sold.

If any brick company delivers in any quarter a quantity of brick in excess of its percentage, it is penalized by paying \$1 per thousand on the excess brick delivered. If the brick company persists in manufacturing in excess of the amount permitted, the amount of the excess payment by the brick manufacturer may be increased to \$3 per thousand. In many instances the quota allotted to certain brick manufacturers was much less than the capacity of their plants, and the companies were permitted to operate only a portion of the time.

The commission is careful to state that the various combinations whose practices they describe have no monopoly of these practices.

By the specification of these combinations, we do not mean to imply that other combinations, equally as vicious in their operation, do not designate the other lines of manufactured reinforced steel bars products. This is true of sand, gravel, marble, crushed stone, lime, limestones, etc. In the nature of things an exhaustive examination into the conditions surrounding the manufacture of all the essentials to building operations was impossible, but the commission did proceed sufficiently far to warrant the conclusion that such unlawful combinations do exist and that the high cost of building in Chicago is, in a large measure, attributable to their unlawful activities.

Combinations of contractors were found to exist and to be as autocratic in their rule as the combinations of material producers. The master plumbers, master steam fitters, sheet-metal workers, employing plasterers, Chicago contracting team owners, and Chicago cartage exchange are mentioned as notable examples. Like the combinations of material producers, they worked to benefit those within the organization at the cost of those without and of the general public, and the result of their activities was to produce conditions which were "well-nigh intolerable and destroyed all initiative and independence of action on the part of those not affiliated with the contractors' associations."

Turning to the labor unions, the commission specifies two different lines of objectionable activity: Direct graft and dishonesty, maintained sometimes by violence, usually practiced by the business agents or leaders of the unions, and closely associated with corrupt practices on the part of the contractors' associations; and working rules and agreements, designed to restrict production, or to make more work for union members, or to secure higher wages than the kind of work justifies, or in some other way to increase returns to members. As to the first, the commission believes that to a large extent these practices have been eliminated by the vigorous campaign inaugurated against them. Indictments were secured against many grafting labor leaders and members of a number of contractors' associations.

There have been 40 convictions recently in the criminal court of Cook County against bombers, conspirators, jury bribers, and perjurers. There are now pending for disposition indictments against 218 defendants for crimes against the building industry.

The agreement and working rules are still in effect. They differ considerably, some of them being entirely reasonable, while others are objectionable. Some of them are used to establish combinations between employers' and contractors' associations on the one side and labor unions on the other, which lead to monopolies in particular trades, and to the enhancement of building costs. In general, the commission states, these rules contain a monopolistic element, and tend to restrict either those who may work, or the manner in which they may work, or those for whom they may work. They also tend to "make possible or countenance waste of time, effort, and material, affect adversely quality and quantity of product, make difficult the adoption of improved methods, and the use of new appliances, and discourage the development of skill and zealous and industrious performance of duties, or rather do not encourage such development."

An investigation of the methods of financing building propositions in Chicago showed many objectionable practices.

Such evil practices as superspeculative loans, fictitious values, exorbitant rates of interest, excessive money charges, fraudulent representations, false advertising and other disreputable practices, have been very frequently indulged in, with the result that an extraordinarily large amount of "wild cat" mortgage securities have been placed upon the market in Chicago and in Illinois.

These practices are discussed at some length, with illustrative instances, and attention is called to their effect upon the renting situation.

The commission feels that the general effect of the investigation has been good, but that much remains to be done. The State laws of Illinois are inadequate to deal with the price-fixing combinations, and the Federal courts are so overburdened that they can not proceed as the situation demands. "Unless Illinois helps herself by the passage of laws to meet present-day problems raised by the price-fixing combinations, prosecutors and citizens will have to continue injured and indignant, but impotent." The grosser forms of dishonesty, however, have been checked and the industry is in a more healthful condition than it has been for years past.

In order to eliminate the objectionable financial practices uncovered the commission recommends the passage of laws that deal

with price fixing, and laws that carefully regulate real estate business. Apart from legislative measures, it recommends: Immediate attention to the apprenticeship problem; the active interest of civic groups in the large centers in providing better financing systems and helping citizens of moderate means to build homes; a greater use of building and loan associations and fair play on the part of all connected with the building industry.

### Housing Conditions in Lawrence.

THE Massachusetts Special Commission on the Necessaries of Life has issued a special report, under date of June 15, 1923, dealing with the conditions disclosed by a survey of Lawrence, undertaken at the request of the mayor of the city. Complaints had been received from a number of tenants, who felt that their rents were being raised unreasonably, and the mayor asked the commission to investigate and report what action the city government could take to relieve the situation. The commission at once complied, and in this report gives the result of its investigation.

Owing to the fact that the landlords did not appear at a public hearing called by the commission, the matter of rents was delayed for further consideration, and the report deals mainly with housing conditions. As to the general situation, the commission finds that the city has a population of approximately 96,000, many of whom are of foreign birth. The amount of vacant land is limited, so that there is little opportunity for building houses other than tenements or apartment houses, although some dwellings are now under construction. One of the largest industries in Lawrence has for several years assisted its employees in the construction and ownership of homes, and other industries are reported to be contemplating such action. Meanwhile, business prosperity has brought to the city many more families than it can accommodate suitably, and the fact that many of these are foreigners makes their exploitation easier.

Unscrupulous and greedy landlords have evidently taken advantage of the housing predicament of these workers to increase rents, without regard to the assessed value and cost of operating the property, as the wages of the workers have been raised. This practice has resulted in the housing difficulties complained of to the commission. \* \* \* Many of the houses are occupied by three or four times as many people as should properly live in them. Many of these dwellings have been without repairs for years. Even with the prevailing high rate of rents much needed repairs are not being made. \* \* \* Whether the financial returns to the owner be much or little, the physical condition of many of these properties is so bad that no rent, however low, can be considered fair.

In the main, the commission found the interior of the homes, i. e., the part for which the tenant was directly responsible, "in a neat and tidy condition," so that the condition of the houses is ascribed rather to the landlord's failure to make necessary repairs than to the tenant's carelessness or neglect. The commission points out that in many of these houses the condition is so bad that "the people who are obliged to live in this type of housing must find it a great relief to go into the well-ventilated, well-lighted, sanitary, and finely constructed mills to work."

Another feature of the situation which the commission feels needs attention is the disparity between the assessed value of many of these properties and the amounts loaned upon them by banks. In Massachusetts, city assessors are sworn to assess property at its fair value, and banks are forbidden to loan upon real estate more than 60 per cent of its fair value. But the commission found that in many of the cases investigated there appeared to be "no connection between the amount of assessment and the loan made on the property by banks." For instance, one property assessed at \$16,075 carried a first mortgage of \$16,000 due to a savings bank, besides a second mortgage of \$9,500. Considering only first mortgages, these are among the instances given:

|                     | Assessed<br>value. | First mortgage<br>(savings bank). |
|---------------------|--------------------|-----------------------------------|
| Property No. 3..... | \$1,675            | \$1,750                           |
| Property No. 4..... | 16,800             | 15,000                            |
| Property No. 6..... | 2,725              | 3,000                             |
| Property No. 7..... | 13,400             | 12,000                            |
| Property No. 8..... | 5,150              | 6,000                             |

The above table shows such a wide discrepancy between the value placed upon these parcels by the assessors and the value placed upon them by the experts for the banks that it is impossible for the commission at present to form an intelligent opinion as to the real value of these properties.

The lack of reliable indications of what the real value of the property may be renders it difficult to estimate what would be a fair rent. The commission points out, however, that rents have been raised in many cases, "in about the same proportion as the wages of their tenants have increased," regardless of the value of the property. Nevertheless, the commission does not think that many tenants are paying a disproportionate part of their income for rent; the trouble is that they are not getting value for their money.

To meet the situation, the commission advises that the whole power of the city government should be brought into play, and that public sentiment should be enlisted. To this end, it is recommended that a rent and housing committee should be created, which, in addition to hearing and adjusting complaints of rent and housing, should have these additional functions:

To call the attention of the Board of Health to property which is in an untenable condition or a menace to the public health. To call the attention of the proper authorities to property which constitutes a fire hazard. To call the attention of the assessors to property which is not assessed for its fair value. To call the attention of the banks holding mortgages to property where rents are unreasonably increased. To call the attention of the Federal and State taxation officials to the profits being realized by greedy real estate speculators and landlords. To explain to tenants their duty in regard to taking care of the property they occupy.

The commission emphasizes the fact that "reputable landlords, bank officials, attorneys and real estate men do not approve of the methods followed by a proportionately small number of greedy property owners whose sharp practices have resulted in much public unrest by causing unwarranted hardship to tenants." Consequently, a rent and housing committee of the kind suggested could count on the close cooperation of all decent people in the community, and would be a more effective means of meeting the difficulty than the passage of special legislation, a method which the commission deprecates.



## New York State Commission of Inquiry into Housing and Regional Planning.

THE New York Evening Post for August 16, 1923, announced the appointment of a fact-finding commission on housing and regional planning for New York, which is to give special attention to the question of whether or not a housing emergency exists and to report its findings on this subject to the Governor and the legislature by next January. For some time past the opposition to the emergency rent laws and the tax exemption ordinance has been based on the alleged passing of the emergency which was originally brought forward as justifying these departures from established custom, while the advocates of the new regulations contended that the emergency was as great as ever. One purpose of the legislature in creating the commission was to secure authoritative information on which to base action when the present legislation expires.

The members of the commission include among others the comptroller of the Metropolitan Life Insurance Co., and the international-secretary-treasurer of the United Textile Workers of America. The commission is to have close cooperation from the State officials, and a plan is under discussion for the appointment of an advisory committee to work with it.

## Extension of Rent Law in Argentina.<sup>1</sup>

THE National Congress of Argentina passed three measures on September 19, 1921, designed to protect renters from the excessive increases which they had suffered and to alleviate these conditions.<sup>2</sup> In accordance therewith terms of rentals for houses, apartments, and rooms could not be changed for a period of one and one-half years. A decree signed by the President on April 21, 1923, extended this rent law to September 1, 1923.

## English Rent Control and Housing Acts.

THE vexed question of rent control in England and Scotland has been settled, at least temporarily, by the passage of the rent and mortgage interest restrictions act, 1923, which received the royal assent on July 31. Under the rent control act of 1920, which was due to expire in June, 1923, but which was continued until September to allow time for considering the new act, houses renting up to £105 (\$511, par) in London, £90 (\$438, par) in Scotland, and £78 (\$380, par) elsewhere were controlled. Increases of rent were restricted to certain prescribed percentages and eviction of a tenant was made difficult or impossible. For nearly a year past the question of whether this act should be continued, or, if not, what should be substituted for it, has been a matter of hot controversy. A Government committee appointed in 1922 to consider and report on the whole matter handed in a report early in 1923 recommending that houses in

<sup>1</sup>Argentina. *Crónica Mensual del Departamento Nacional del Trabajo*. Buenos Aires, May, 1923, pp. 1046, 1047.

<sup>2</sup> The MONTHLY LABOR REVIEW, December, 1921, p. 161, gives a résumé of these measures.



the highest rental group, which had been brought under control in 1920, should be released from control in June, 1923; that the second group, first controlled in 1919, should be released in June, 1924, and that the houses of the lowest rental should be freed from restrictions in June, 1925. This became a political issue, and in a series of by-elections the sentiment of the people was shown to be so overwhelmingly against it that the proposition was withdrawn and the Government introduced the measure which has just become a law.

The important provisions of this act, summarized in the Ministry of Labor Gazette for August, 1923, are as follows:

There is to be no general decontrol until June 24, 1925, when the first part of this act will terminate.

A house of which the landlord is in possession at the time of the passage of this act, or which comes into his possession afterward, is decontrolled. So is a house if, at some time after the passage of this act, the landlord lets it on a valid agreement for a term of not less than two years "ending at some date after June 24, 1926."

The conditions under which a landlord may regain possession of his house have been considerably extended. The new act provides that he may recover possession when "the dwelling house is reasonably required by the landlord for occupation as a residence for himself, or for any son or daughter of his over 18 years of age, or for any person bona fide residing with him, or for some person engaged in his whole-time employment or in the whole-time employment of some tenant from him or with whom, conditional on housing accommodation being provided, a contract for such employment has been entered into, and \* \* \* the court is satisfied that alternative accommodation is available which is reasonably suitable to the means of the tenant and to the needs of the tenant and his family."

Increases of rent are made conditional upon the house being in a state of reasonable repair.

Certain increases of rent are permitted to the landlord when a tenant sublets; provision is made for protecting the tenant against extortionate charges for furniture when a house is let wholly or partly furnished; limits are put upon the period during which certain overcharges or arrearages may be recovered; and county courts are given power "on the application of a landlord or a tenant to determine summarily any questions as to the amount of the rent, standard rent, or net rent of any dwelling house" to which the act of 1920 applied, and as to the increase of rent permissible.

The second part of the act deals with the protection of tenants after 1925 and is to continue in force until June, 1930, unless repealed by Parliament. This gives the courts certain powers of control and provides for the setting up of reference committees "to assist the court in the determination of questions relating to the rent, character, or condition of dwelling houses."

#### Aid to Housing.

A NEW bill, providing for State aid to housing, was approved and became law on July 31. The terms of the bill, as first proposed, and as amended in passage, are given in the Ministry of Labor Gazette for April and August of this year. The most important point is that the Government proposes again to take part in the

campaign for more houses, though its contribution is to be much smaller than under the plans put forth at the end of the war.

Section 1 (subsces. 1 and 2) of the bill proposes to authorize the Minister of Health to make contributions, out of moneys provided by Parliament, toward any expenses incurred by a local authority in providing, or in promoting the construction of, houses of a certain type and size, if completed before the 1st October, 1925; provided that such contribution shall not exceed the sum of £6 [\$29.20 par] per annum for each house, for a period not exceeding 20 years. (Ministry of Labor Gazette, April, 1923, p. 120.)

The size of houses for which this subsidy is to be available is determined by floor space. Two-story houses are not to exceed 950 superficial feet or to fall below 570, while for one-story houses, or for structurally separate and self-contained flats, the maximum is 880 and the minimum 500 superficial feet.

A further proviso to this subsection requires that every house or flat in respect of which a State contribution is given should be provided with a fixed bath, except where otherwise approved by the Minister of Health on the recommendation of the local authority. (Ministry of Labor Gazette, August, 1923, p. 279.)

The bill authorizes local authorities, under certain conditions and with the approval of the Minister of Health, to assist private enterprises in building houses within these limitations. The assistance may take the form of a lump-sum grant, the refund of rates for a specified period, or repayment of advances to a building society. Other sections authorize the granting of aid to public utility societies which build houses of the prescribed type.

Subsection 6 of section 1 authorizes the metropolitan borough councils to provide houses themselves (instead of "promoting" their construction by others); and permits the London County Council to supplement the State contribution in respect of such houses to an extent not exceeding £3 [\$14.60, par] a house each year, for a period not exceeding 20 years. (Ministry of Labor Gazette, August, 1923, p. 279.)

### Improvement in Housing Conditions in the Netherlands.

A REPORT from the United States consul general stationed at Rotterdam, dated July 2, 1923, states that building activity in the Netherlands has fallen off considerably during the last year, due in part to the general financial and industrial depression, but in part, also, to an improvement in the housing situation. Several causes are named as responsible for this improvement. Some four years ago the Government undertook an active campaign for the improvement of housing conditions, under which it gave subsidies to municipalities, building societies, or private persons who put up houses conforming to certain conditions. (For a brief account of the Government program, see the MONTHLY LABOR REVIEW, July, 1921, pp. 188-189.) To some extent in the larger cities the execution of this program has caught up with the acute demand for houses. A second factor is the movement back to the country towns and villages of many who were attracted to the cities by the high wages of the postwar period, but who have found themselves unemployed as the demand for labor slackened.

The change in the building situation has one result which will be of special interest to our own country, as the unemployed are beginning to migrate:

It is significant to note in this connection that an extraordinarily large proportion of the Dutch emigrants now proceeding to the United States are of skilled labor, including particularly carpenters, bricklayers, masons, and other building trade artisans.

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## Progress of Housing Schemes in Scotland.

THE fourth annual report of the Scottish Board of Health, covering the year 1922 (Cmd. 1887), contains data concerning the provision of houses by Government aid in Scotland. At the end of 1922 the houses completed by the local authorities with the aid of the Government subsidy numbered 14,778, while 10,772 were under construction or planned for under the State scheme. In addition, 2,229 houses had been erected by private enterprise with the aid of the Government subsidy, making a total of 27,779 houses of which 17,007 were finished. In 1919 the local authorities had estimated that the number of houses then urgently needed in Scotland was 131,101, an estimate which coincides closely with the figures reached by the Royal Commission on Housing, and which the board of health considers is fairly reasonable. Even assuming, therefore, that the housing needs of Scotland have not increased since 1919, and that none of the then existing houses have so deteriorated as to be unfit for habitation, it is evident that there is still a shortage of over 100,000 houses in the country; but since neither of these assumptions is really probable, the situation has presumably been growing worse since 1919.

Indeed the shortage is probably accumulating, for it is doubtful if the number of houses being built each year is sufficient to provide for the natural increase of population and to replace houses that yearly become unfit for occupation. As there is no alternative accommodation for the occupants if these unfit houses are closed, the local authorities are compelled to refrain from exercising their powers to close them, and in consequence they remain occupied, to the detriment of the health and well-being of the occupants.

Up to the end of December, 1922, bids had been approved for 22,124 houses under the State-aid scheme, of which 1.8 per cent had two rooms, 55.3 per cent had three rooms, 36.3 per cent four rooms, and 6.6 per cent five rooms and over. (Bathrooms and sculleries are not counted as rooms in this enumeration.)

During the year the board of health had approved bids on housing schemes to provide 1,319 houses, at an average cost of £521 (\$2,535, par). This represented a considerable fall in building costs, the amount varying according to the kind of house.

As regards the smaller class of brick houses which constitute the bulk of the houses for which tenders were accepted during the year, the three-apartment flat is very popular in Scotland, and is at the same time the cheapest type of house. No tenders for this flatted type were submitted in January or February, but the lowest tender in March was £634 [\$3,085, par] per house. By December the price had dropped to £393 [\$1,913, par] or by 38 per cent in nine months. \* \* \* Another popular type is the two-story double cottage of three apartments. The lowest price submitted to us in December for this type was £422 [\$2,054, par] per house as against £612 [\$2,978, par] in March, or a fall of 31 per cent in nine months.

This fall in cost is attributed partly to the Government's decision to curtail its building program, which by restricting the amount of building to be done, operated to reduce prices of building materials and wages, and to induce keener competition among builders, with a consequent tendency to put in lower bids. The fall in costs has been so marked that "in the latter months of the year especially there have been indications of house building by the private builder." So far private building has been confined to houses beyond the reach of the working class, but the outlook is considered hopeful.

## EMPLOYMENT AND UNEMPLOYMENT.

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### Employment in Selected Industries in August, 1923.

THE Bureau of Labor Statistics received reports concerning the volume of employment in August, 1923, from 6,589 representative establishments in 51 manufacturing industries, covering 2,279,659 employees whose total earnings during one week in August were \$59,967,607.

The same establishments in July reported 2,284,642 employees and total pay rolls of \$59,564,865. Therefore in August, as shown from these unweighted figures for 51 industries combined, there was a decrease as compared with July of 0.2 per cent in the number of employees, an increase of 0.7 per cent in the total amount paid in wages, and an increase of 0.9 per cent in average weekly earnings. This very slight decrease in employment reflects the end of the vacation season.

Comparing data from identical establishments for July and August, increases in employment are shown in 22 of the 51 industries and increases in the amount of wages paid in 21 industries.

The greatest increase in employment was 11.6 per cent in the flour industry. Fertilizers, pottery, structural ironwork, confectionery and ice cream, and boots and shoes (not including rubber) follow, with increases ranging from 8.9 per cent to 4.6 per cent.

The greatest decreases in employment were 23.1 per cent in machine tools, due almost entirely to annual vacations, 13.7 per cent in automobile tires, 12.6 in cane-sugar refining, and 9 per cent in stamped and enameled ware.

The greatest increase in pay roll totals was 12.9 per cent in the pottery industry. Iron and steel, flour, women's clothing, and boots and shoes follow with increases ranging from 11 per cent to 6.4 per cent.

The greatest decrease in pay roll totals was 19.7 per cent in machine tools, followed by steel-ship building, shirts and collars, automobile tires, stamped and enameled ware, sugar refining, and cigars and cigarettes, with decreases ranging from 12.2 per cent to 10 per cent.

Twenty-five of the 51 industries show increased per capita earnings in August as compared with only 10 in July.

For convenient reference the latest figures available relating to all employees, excluding executives and officials, on Class I railroads, drawn from Interstate Commerce reports, are given at the foot of the first and second tables.

## COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK IN JULY AND AUGUST, 1923.

| Industry.   | Establishments reporting both months. | Number on pay roll in one week. |               | Per cent of change. | Amount of pay roll in one week. |               | Per cent of change. |
|---|---------------------------------------|---------------------------------|---------------|---------------------|---------------------------------|---------------|---------------------|
|   |                                       | July, 1923.                     | August, 1923. |                     | July, 1923.                     | August, 1923. |                     |
| Agricultural implements.....                                  | 73                                    | 21,809                          | 20,841        | -4.4                | \$558,027                       | \$539,902     | -3.2                |
| Automobiles.....  | 168                                   | 264,277                         | 261,779       | -0.9                | 8,609,737                       | 8,850,322     | +2.8                |
| Automobile tires.....   | 58                                    | 20,543                          | 17,728        | -13.7               | 512,049                         | 454,316       | -11.3               |
| Baking.....   | 233                                   | 33,139                          | 32,680        | -1.4                | 871,760                         | 835,356       | -4.2                |
| Boots and shoes, not including rubber.....                    | 150                                   | 74,718                          | 78,150        | +4.6                | 1,640,098                       | 1,745,318     | +6.4                |
| Boots and shoes, rubber.....                                  | 7                                     | 10,337                          | 9,675         | -6.4                | 247,680                         | 232,410       | -6.2                |
| Brick and tile.....   | 297                                   | 24,011                          | 24,019        | (1)                 | 604,449                         | 617,030       | +2.1                |
| Car building and repairing, electric-railroad.....            | 134                                   | 14,478                          | 14,794        | +2.2                | 408,553                         | 425,668       | +4.2                |
| Car building and repairing, steam-railroad.....               | 228                                   | 166,738                         | 169,536       | +1.7                | 4,845,316                       | 4,946,000     | +2.1                |
| Carpets.....  | 23                                    | 21,285                          | 21,261        | -0.1                | 566,798                         | 570,934       | +0.7                |
| Carriages and wagons.....                                     | 37                                    | 2,638                           | 2,579         | -2.2                | 57,235                          | 56,865        | -0.6                |
| Cement.....   | 72                                    | 22,992                          | 22,812        | -0.8                | 650,610                         | 671,916       | +3.3                |
| Chemicals.....  | 83                                    | 15,589                          | 15,636        | +0.3                | 404,580                         | 398,332       | -1.5                |
| Clothing, men's.....  | 189                                   | 57,485                          | 57,255        | -0.4                | 1,518,096                       | 1,437,637     | -5.3                |
| Clothing, women's.....  | 142                                   | 13,441                          | 13,695        | +1.9                | 350,654                         | 373,291       | +6.5                |
| Confectionery and ice cream.....                              | 139                                   | 14,155                          | 14,877        | +5.1                | 318,461                         | 317,436       | -0.3                |
| Cotton goods.....   | 236                                   | 143,202                         | 139,846       | -2.3                | 2,551,847                       | 2,593,262     | +1.6                |
| Dyeing and finishing textiles.....                            | 64                                    | 24,616                          | 23,189        | -5.8                | 552,615                         | 503,295       | -8.9                |
| Electrical machinery, apparatus, and supplies.....            | 114                                   | 95,327                          | 95,129        | -0.2                | 2,627,482                       | 2,656,033     | +1.1                |
| Fertilizers.....  | 95                                    | 5,816                           | 6,336         | +8.9                | 125,779                         | 122,617       | -2.5                |
| Flour.....  | 259                                   | 11,653                          | 13,002        | +11.6               | 295,126                         | 322,834       | +9.4                |
| Foundry and machine-shop products.....                        | 479                                   | 146,974                         | 146,437       | -0.4                | 4,294,791                       | 4,224,412     | -1.6                |
| Furniture.....  | 229                                   | 34,933                          | 35,303        | +1.1                | 784,044                         | 783,809       | (2)                 |
| Glass.....  | 83                                    | 25,158                          | 24,141        | -4.0                | 600,343                         | 614,253       | +2.3                |
| Hardware.....   | 31                                    | 21,484                          | 21,418        | -0.3                | 512,471                         | 529,977       | +3.4                |
| Hosiery and knit goods.....                                   | 210                                   | 64,962                          | 65,293        | +0.5                | 1,000,245                       | 1,010,762     | +1.1                |
| Iron and steel.....   | 180                                   | 229,582                         | 235,561       | +2.6                | 6,295,572                       | 6,986,140     | +11.0               |
| Leather.....  | 132                                   | 28,849                          | 28,484        | -1.3                | 708,417                         | 696,661       | -1.7                |
| Lumber, millwork.....   | 188                                   | 26,663                          | 26,468        | -0.7                | 648,382                         | 638,146       | -1.6                |
| Lumber, sawmills.....   | 223                                   | 67,760                          | 67,191        | -0.8                | 1,380,035                       | 1,370,344     | -0.7                |
| Machine tools.....  | 62                                    | 8,768                           | 6,746         | -23.1               | 236,506                         | 189,961       | -19.7               |
| Millinery and lace goods.....                                 | 81                                    | 11,669                          | 11,938        | +2.3                | 248,178                         | 252,645       | +1.8                |
| Paper and pulp.....   | 170                                   | 49,452                          | 49,731        | +0.6                | 1,287,661                       | 1,264,011     | -1.8                |
| Paper boxes.....  | 134                                   | 14,194                          | 14,379        | +1.3                | 292,234                         | 288,702       | -1.2                |
| Petroleum refining.....                                       | 63                                    | 51,287                          | 50,734        | -1.1                | 1,675,331                       | 1,574,414     | -6.0                |
| Pianos and organs.....  | 22                                    | 6,653                           | 6,717         | +1.0                | 178,107                         | 180,945       | +1.6                |
| Pottery.....  | 47                                    | 9,561                           | 10,250        | +7.2                | 234,615                         | 264,938       | +12.9               |
| Printing, book and job.....                                   | 197                                   | 24,180                          | 23,890        | -1.2                | 804,088                         | 746,600       | -7.2                |
| Printing, newspaper.....                                      | 198                                   | 42,301                          | 42,299        | (2)                 | 1,563,456                       | 1,534,477     | -1.9                |
| Shipbuilding, steel.....                                      | 27                                    | 18,601                          | 17,732        | -4.7                | 509,662                         | 447,680       | -12.2               |
| Shirts and collars.....                                       | 98                                    | 24,911                          | 23,749        | -4.7                | 373,389                         | 329,692       | -11.7               |
| Silk goods.....   | 189                                   | 49,874                          | 50,068        | +0.4                | 1,018,019                       | 1,032,545     | +1.4                |
| Slaughtering and meat packing.....                            | 81                                    | 88,818                          | 89,534        | +0.8                | 2,198,754                       | 2,161,222     | -1.7                |
| Stamped and enameled ware.....                                | 30                                    | 10,399                          | 9,466         | -9.0                | 245,406                         | 218,711       | -10.9               |
| Steam fittings and steam and hot-water heating apparatus..... | 90                                    | 32,856                          | 32,951        | +0.3                | 980,392                         | 932,049       | -4.9                |
| Stoves.....   | 78                                    | 14,867                          | 14,915        | +0.3                | 377,034                         | 386,658       | +2.6                |
| Structural ironwork.....                                      | 114                                   | 12,435                          | 13,231        | +6.4                | 350,627                         | 354,331       | +1.1                |
| Sugar refining, not including beet sugar.....                 | 11                                    | 10,058                          | 8,787         | -12.6               | 283,917                         | 253,189       | -10.8               |
| Tobacco: Chewing and smoking.....                             | 29                                    | 3,871                           | 3,650         | -5.7                | 59,033                          | 54,428        | -7.8                |
| Tobacco: Cigars and cigarettes.....                           | 153                                   | 29,620                          | 28,780        | -2.8                | 528,695                         | 476,059       | -10.0               |
| Woolen goods.....   | 159                                   | 65,653                          | 64,997        | -1.0                | 1,578,509                       | 1,499,072     | -5.0                |
| Railroads, Class I (June 15, 1923.....)                       |                                       | 1,895,977                       |               |                     | 3 249,044,288                   |               |                     |
| (July 15, 1923.....)  |                                       | 1,938,281                       |               | +2.2                | 3 254,794,416                   |               | +2.3                |

<sup>1</sup> Less than one-tenth of 1 per cent increase.<sup>2</sup> Less than one-tenth of 1 per cent decrease.<sup>3</sup> Amount of pay roll for one month.

Reports for a comparison of data between August, 1923, and August, 1922, are available from 2,593 establishments in 42 industries. These reports, from identical establishments for the two periods, show an increase in the 12 months of 15.2 per cent in the number of employees, an increase of 27.8 per cent in the total amount paid in wages, and an increase of 11 per cent in average weekly earnings.



Thirty-three of the 42 industries show increases in the number of employees, beginning with steam-railroad car building and repairing, 59.2 per cent; foundry and machine-shop products, 41.5 per cent; electrical machinery, apparatus, and supplies, 28.7 per cent; woolen goods, 26.6 per cent; and iron and steel, 20.1 per cent. The greatest decreases in employment were 18.1 per cent in the automobile-tire industry, 11.5 per cent in cigars and cigarettes, and 9.7 per cent in fertilizers.

Steam-railroad car building and repairing leads in increased pay roll totals in this yearly comparison with 99.8 per cent, followed by foundry and machine-shop products with 58.5 per cent; iron and steel with 56.6 per cent; and electrical machinery, apparatus, and supplies with 50.8 per cent. Thirty-two other industries out of the 42 also show substantial gains in wages in the 12 months, while the remaining 6 show reduced pay roll totals. Of these 6, cigars and cigarettes, automobile tires, and fertilizers decreased 16.8 per cent, 14.7 per cent, and 10.1 per cent, respectively.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS DURING ONE WEEK IN AUGUST, 1922, AND AUGUST, 1923.

| Industry.   | Estab-<br>lish-<br>ments<br>report-<br>ing both<br>months. | Number on pay roll<br>in one week. |                  | Per<br>cent of<br>change. | Amount of pay roll<br>in one week. |                  | Per<br>cent of<br>change. |
|---|--|------------------------------------|------------------|---------------------------|------------------------------------|------------------|---------------------------|
|   |  | August,<br>1922.                   | August,<br>1923. |                           | August,<br>1922.                   | August,<br>1923. |                           |
| Agricultural implements.....                          | 44   | 16,206                             | 17,661           | +9.0                      | \$387,002                          | \$466,191        | +20.5                     |
| Automobiles.....                                      | 101  | 171,755                            | 196,275          | +14.3                     | 5,533,524                          | 6,646,747        | +20.1                     |
| Automobile tires.....                                 | 25   | 11,225                             | 9,192            | -18.1                     | 265,793                            | 226,753          | -14.7                     |
| Boots and shoes, not including<br>rubber.....         | 102  | 61,787                             | 65,094           | +5.4                      | 1,384,494                          | 1,490,709        | +7.7                      |
| Brick and tile.....                                   | 121  | 12,102                             | 12,862           | +6.3                      | 293,372                            | 347,842          | +18.6                     |
| Car building and repairing,<br>steam-railroad.....    | 88   | 53,150                             | 84,623           | +59.2                     | 1,247,155                          | 2,491,880        | +99.8                     |
| Carriages and wagons.....                             | 16   | 1,621                              | 1,659            | +2.3                      | 36,645                             | 38,676           | +5.5                      |
| Carpets.....  | 17   | 14,033                             | 15,431           | +10.0                     | 344,618                            | 409,876          | +18.9                     |
| Chemicals.....  | 22   | 7,332                              | 7,740            | +5.6                      | 174,452                            | 205,195          | +17.6                     |
| Clothing, men's.....                                  | 97   | 40,133                             | 41,196           | +2.6                      | 1,107,772                          | 1,132,208        | +2.2                      |
| Clothing, women's.....                                | 64   | 8,239                              | 8,024            | -2.6                      | 267,987                            | 256,143          | -4.4                      |
| Cotton goods.....                                     | 108  | 72,027                             | 83,714           | +16.2                     | 1,080,430                          | 1,462,712        | +35.4                     |
| Dyeing and finishing textiles.....                    | 26   | 13,527                             | 14,280           | +5.6                      | 270,175                            | 305,687          | +13.1                     |
| Electrical machinery, apparatus,<br>and supplies..... | 63   | 55,242                             | 71,075           | +28.7                     | 1,313,450                          | 1,981,020        | +50.8                     |
| Fertilizers.....                                      | 13   | 1,854                              | 1,674            | -9.7                      | 35,084                             | 31,524           | -10.1                     |
| Flour.....  | 33   | 4,077                              | 4,542            | +11.4                     | 103,959                            | 115,111          | +10.7                     |
| Foundry and machine-shop<br>products.....             | 145  | 57,101                             | 80,778           | +41.5                     | 1,515,550                          | 2,401,541        | +58.5                     |
| Furniture.....  | 78   | 15,584                             | 17,186           | +10.3                     | 358,093                            | 409,167          | +14.3                     |
| Glass.....  | 62   | 17,029                             | 19,474           | +14.4                     | 359,564                            | 467,003          | +29.9                     |
| Hardware.....   | 16   | 13,407                             | 15,540           | +15.9                     | 273,704                            | 381,581          | +39.4                     |
| Hosiery and knit goods.....                           | 105  | 39,325                             | 39,319           | ( <sup>1</sup> )          | 630,375                            | 652,919          | +3.6                      |
| Iron and steel.....                                   | 115  | 143,931                            | 172,859          | +20.1                     | 3,291,734                          | 5,156,113        | +56.6                     |
| Leather.....  | 70   | 21,079                             | 20,981           | -0.5                      | 467,546                            | 512,366          | +9.6                      |
| Lumber, millwork.....                                 | 82   | 12,841                             | 13,463           | +4.8                      | 301,948                            | 334,791          | +10.9                     |
| Lumber, sawmills.....                                 | 138  | 47,082                             | 51,071           | +8.5                      | 825,071                            | 1,017,038        | +23.3                     |
| Millinery and lace goods.....                         | 22   | 2,531                              | 2,596            | +2.6                      | 54,996                             | 59,660           | +8.5                      |
| Paper and pulp.....                                   | 91   | 29,376                             | 31,009           | +5.6                      | 690,689                            | 812,833          | +17.7                     |
| Paper boxes.....                                      | 40   | 7,580                              | 8,202            | +8.2                      | 156,967                            | 181,861          | +15.9                     |
| Petroleum refining.....                               | 27   | 36,372                             | 41,638           | +14.5                     | 1,263,941                          | 1,284,122        | +1.6                      |
| Pianos and organs.....                                | 8  | 3,389                              | 4,056            | +19.7                     | 88,686                             | 109,470          | +23.4                     |
| Pottery.....  | 20   | 4,597                              | 4,567            | -0.7                      | 133,526                            | 125,964          | -5.7                      |
| Printing, book and job.....                           | 72   | 13,411                             | 14,197           | +5.9                      | 442,261                            | 456,433          | +3.2                      |
| Printing, newspaper.....                              | 90   | 23,315                             | 25,004           | +7.2                      | 813,738                            | 914,218          | +12.3                     |
| Shipbuilding, steel.....                              | 12   | 8,955                              | 9,757            | +9.0                      | 228,939                            | 266,417          | +16.4                     |
| Shirts and collars.....                               | 66   | 20,160                             | 19,565           | -3.0                      | 286,266                            | 279,004          | -2.5                      |
| Silk goods.....                                       | 101  | 32,088                             | 34,870           | +8.7                      | 601,514                            | 734,891          | +22.2                     |
| Slaughtering and meat packing.....                    | 70   | 71,859                             | 84,624           | +17.8                     | 1,549,847                          | 2,032,622        | +31.1                     |
| Stamped and enameled ware.....                        | 11   | 5,088                              | 4,987            | -2.0                      | 122,079                            | 126,228          | +3.4                      |
| Stoves.....   | 16   | 4,532                              | 4,647            | +2.5                      | 114,003                            | 132,293          | +16.0                     |
| Tobacco: Chewing and smoking.....                     | 6  | 1,207                              | 1,297            | +7.5                      | 31,335                             | 36,962           | +18.0                     |
| Tobacco: Cigars and cigarettes.....                   | 100  | 23,948                             | 21,185           | -11.5                     | 422,390                            | 351,384          | -16.8                     |
| Woolen goods.....                                     | 90   | 35,084                             | 44,429           | +26.6                     | 763,943                            | 1,029,521        | +34.8                     |
| Railroads, Class I<br>July 15, 1922.....              |  | 1,452,253                          |                  |                           | <sup>2</sup> 187,064,781           |                  |                           |
| July 15, 1923.....                                    |  | 1,938,281                          |                  | +33.5                     | <sup>2</sup> 254,794,416           |                  | +36.2                     |

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

<sup>2</sup> Amount of pay roll for one month.

Per capita earnings increased in August as compared with July in 25 of the 51 industries considered, iron and steel, glass, pottery, the two clothing industries, machine tools, cement, and cotton goods leading. The greatest decreases were in fertilizers, steel-ship building, shirts and collars, cigars and cigarettes, and book and job printing. But when per capita earnings in August, 1923, are compared with those in August, 1922, large increases are found in 34 of the 42 industries for which data are available. Iron and steel leads with 30.4 per cent, followed by steam-railroad car building and repairing with 25.5 per cent, hardware with 20.2 per cent, electrical machinery, apparatus, and supplies with 17.2 per cent, and cotton goods with 16.5 per cent.

COMPARISON OF PER CAPITA EARNINGS—AUGUST, 1923, WITH JULY, 1923, AND AUGUST, 1923, WITH AUGUST, 1922.

| Industry.  | Per cent of change in August, 1923, as compared with— |               | Industry.   | Per cent of change in August, 1923, as compared with— |               |
|--|---|---------------|---|---|---------------|
|  | July, 1923.   | August, 1922. |   | July, 1923.   | August, 1922. |
| Iron and steel.....                                | +8.2  | +30.4         | Lumber, sawmills.....   | +1  | +13.6         |
| Glass.....   | +6.6  | +13.6         | Leather.....  | -4  | +10.1         |
| Pottery.....                                       | +5.3  | -5.1          | Millinery and lace goods.....                                 | -5  | +5.8          |
| Clothing, women's.....                             | +4.5  | -1.9          | Lumber, millwork.....   | -9  | +5.8          |
| Machine tools.....                                 | +4.4  | .....         | Furniture.....  | -1.1  | +3.6          |
| Cement.....  | +4.1  | .....         | Foundry and machine-shop products.....                        | -1.3  | +12.0         |
| Cotton goods.....                                  | +4.0  | +16.5         | Chemicals.....  | -1.8  | +11.4         |
| Automobiles.....                                   | +3.8  | +5.1          | Printing, newspaper.....                                      | -1.8  | +4.8          |
| Hardware.....                                      | +3.7  | +20.2         | Flour.....  | -2.0  | -6            |
| Automobile tires.....                              | +2.8  | +4.2          | Stamped and enameled ware.....                                | -2.1  | +5.5          |
| Stoves.....  | +2.2  | +13.2         | Tobacco: Chewing and smoking.....                             | -2.2  | +9.8          |
| Brick and tile.....                                | +2.1  | +11.6         | Paper and pulp.....   | -2.4  | +11.5         |
| Sugar refining, not including beet sugar.....      | +2.1  | .....         | Paper boxes.....  | -2.5  | +7.0          |
| Car building and repairing, electric-railroad..... | +1.9  | .....         | Slaughtering and meat packing.....                            | -2.5  | +11.4         |
| Boots and shoes, not including rubber.....         | +1.7  | +2.2          | Baking.....   | -2.9  | .....         |
| Carriages and wagons.....                          | +1.6  | +3.1          | Dyeing and finishing textiles.....                            | -3.3  | +7.2          |
| Agricultural implements.....                       | +1.3  | +10.6         | Woolen goods.....   | -4.1  | +6.4          |
| Electrical machinery, apparatus, and supplies..... | +1.3  | +17.2         | Clothing, men's.....  | -4.9  | -4            |
| Silk goods.....                                    | +1.0  | +12.4         | Petroleum refining.....                                       | -5.0  | -11.3         |
| Carpets.....                                       | +8  | +8.1          | Structural ironwork.....                                      | -5.0  | .....         |
| Pianos and organs.....                             | +6  | +3.1          | Confectionery and ice cream.....                              | -5.2  | .....         |
| Hosiery and knit goods.....                        | +5  | +3.6          | Steam fittings and steam and hot-water heating apparatus..... | -5.2  | .....         |
| Car building and repairing, steam-railroad.....    | +4  | +25.5         | Printing, book and job.....                                   | -6.0  | -2.5          |
| Boots and shoes, rubber.....                       | +3  | .....         | Tobacco: Cigars and cigarettes.....                           | -7.3  | -6.0          |
|  |   |               | Shirts and collars.....                                       | -7.4  | +4            |
|  |   |               | Shipbuilding, steel.....                                      | -7.8  | +6.8          |
|  |   |               | Fertilizers.....  | -10.5   | -5            |

Reports as to operating basis in August were received from 5,256 establishments. A combined total of these reports from the 51 industries shows that 78 per cent were on a full-time basis, 21 per cent on a part-time basis, and 1 per cent were not in operation. This is a decrease in full-time operation of 2.6 per cent as compared with the July reports.

Full-time operation of course does not necessarily indicate full-capacity operation. The schedule from which the following tables are compiled asks for a report both as to time and capacity operation, but some of the bureau's correspondents fail to answer one or the other, or both, of these questions.

A complete report each month from each correspondent would enable the bureau to make the separation of full time into full capacity and part capacity a permanent part of the operating-time table.

As an illustration: Of the 78 per cent of the 5,256 establishments working full time, 39 per cent, or one-half of them, also reported full capacity, 21 per cent reported part capacity, and the remaining 18 per cent failed to report as to capacity. From the nature of the industries covering the last group it is probable that a considerable part of the 18 per cent were, however, operating at full capacity.

The following brief statement expands the full-time reports in a few industries:

| Industry.                                       | Establishments reporting full time— |                    |                                   |        |
|---|-------------------------------------|--------------------|-----------------------------------|--------|
|   | And full capacity.                  | And part capacity. | But not reporting as to capacity. | Total. |
| Automobiles.....                                | 53                                  | 38                 | 22                                | 113    |
| Car building and repairing, steam-railroad..... | 144                                 | 14                 | 26                                | 184    |
| Cotton goods.....                               | 99                                  | 19                 | 22                                | 140    |
| Foundry and machine-shop products.....          | 136                                 | 135                | 78                                | 349    |
| Iron and steel.....                             | 58                                  | 42                 | 18                                | 118    |
| Sawmills.....                                   | 139                                 | 7                  | 17                                | 163    |
| Machine tools.....                              | 16                                  | 25                 | 7                                 | 48     |
| Silk goods.....                                 | 39                                  | 59                 | 12                                | 110    |
| Woolen goods.....                               | 48                                  | 39                 | 11                                | 98     |

FULL AND PART-TIME OPERATION IN MANUFACTURING ESTABLISHMENTS IN AUGUST, 1923.

| Industry.  | Establishments reporting. |                               |                               |                |
|--|---------------------------|-------------------------------|-------------------------------|----------------|
|  | Total.                    | Per cent operating full time. | Per cent operating part time. | Per cent idle. |
| Agricultural implements.....                       | 58                        | 88                            | 12                            | .....          |
| Automobiles.....                                   | 129                       | 88                            | 12                            | .....          |
| Automobile tires.....                              | 62                        | 53                            | 35                            | 11             |
| Baking.....  | 179                       | 91                            | 10                            | .....          |
| Boots and shoes, not including rubber.....         | 122                       | 70                            | 27                            | 3              |
| Boots and shoes, rubber.....                       | 3                         | 67                            | 33                            | .....          |
| Brick and tile.....                                | 263                       | 79                            | 17                            | 3              |
| Car building and repairing, electric-railroad..... | 105                       | 100                           | .....                         | .....          |
| Car building and repairing, steam-railroad.....    | 189                       | 97                            | 2                             | (1)            |
| Carpets.....                                       | 13                        | 62                            | 38                            | .....          |
| Carriages and wagons.....                          | 35                        | 83                            | 17                            | .....          |
| Cement.....  | 62                        | 97                            | 3                             | .....          |
| Chemicals.....                                     | 58                        | 79                            | 14                            | 7              |
| Clothing, men's.....                               | 111                       | 82                            | 18                            | .....          |
| Clothing, women's.....                             | 83                        | 75                            | 23                            | 2              |
| Confectionery and ice cream.....                   | 111                       | 78                            | 22                            | .....          |
| Cotton goods.....                                  | 210                       | 67                            | 31                            | 2              |
| Dyeing and finishing textiles.....                 | 60                        | 33                            | 67                            | .....          |
| Electrical machinery, apparatus, and supplies..... | 89                        | 89                            | 11                            | .....          |
| Fertilizers.....                                   | 79                        | 53                            | 46                            | 1              |
| Flour.....   | 234                       | 32                            | 68                            | .....          |
| Foundry and machine-shop products.....             | 405                       | 86                            | 13                            | (1)            |
| Furniture.....                                     | 181                       | 81                            | 19                            | (1)            |
| Glass.....   | 69                        | 65                            | 25                            | 10             |
| Hardware.....                                      | 30                        | 100                           | .....                         | .....          |
| Hosiery and knit goods.....                        | 149                       | 66                            | 34                            | .....          |
| Iron and steel.....                                | 153                       | 77                            | 18                            | 5              |
| Leather.....                                       | 87                        | 77                            | 22                            | 1              |
| Lumber, millwork.....                              | 152                       | 90                            | 7                             | 3              |
| Lumber, sawmills.....                              | 198                       | 82                            | 17                            | 1              |

<sup>1</sup> Less than 1 per cent.

## FULL AND PART-TIME OPERATION IN MANUFACTURING ESTABLISHMENTS IN AUGUST, 1923—Concluded.

| Industry.   | Establishments reporting. |                               |                               |                |
|---|---------------------------|-------------------------------|-------------------------------|----------------|
|   | Total.                    | Per cent operating full time. | Per cent operating part time. | Per cent idle. |
| Machine tools .....   | 53                        | 91                            | 9                             | .....          |
| Millinery and lace goods.....                                 | 57                        | 84                            | 16                            | .....          |
| Paper and pulp .....  | 124                       | 78                            | 20                            | 2              |
| Paper boxes.....  | 106                       | 75                            | 25                            | .....          |
| Petroleum refining.....                                       | 39                        | 79                            | 21                            | .....          |
| Pianos and organs.....  | 18                        | 100                           | .....                         | .....          |
| Pottery .....   | 42                        | 81                            | 19                            | .....          |
| Printing, book and job.....                                   | 165                       | 85                            | 15                            | .....          |
| Printing, newspaper.....                                      | 110                       | 100                           | .....                         | .....          |
| Shipbuilding, steel.....                                      | 19                        | 84                            | 16                            | .....          |
| Shirts and collars.....                                       | 67                        | 78                            | 19                            | 3              |
| Silk goods.....   | 157                       | 70                            | 26                            | 4              |
| Slaughtering and meat packing.....                            | 60                        | 92                            | 8                             | .....          |
| Stamped and enameled ware.....                                | 28                        | 79                            | 21                            | .....          |
| Steam fittings and steam and hot-water heating apparatus..... | 74                        | 88                            | 12                            | .....          |
| Stoves.....   | 71                        | 58                            | 42                            | .....          |
| Structural ironwork.....                                      | 102                       | 96                            | 4                             | .....          |
| Sugar refining, not including beet sugar.....                 | 7                         | 71                            | 29                            | .....          |
| Tobacco:  |                           |                               |                               |                |
| Chewing and smoking.....                                      | 25                        | 80                            | 20                            | .....          |
| Cigars and cigarettes.....                                    | 113                       | 58                            | 35                            | 6              |
| Woolen goods.....   | 140                       | 70                            | 29                            | (1)            |

<sup>1</sup> Less than 1 per cent.

Increases in rates of wages effective during the month ending August 15 were reported by establishments in 38 of the 51 industries here considered. These increases, ranging from 1 per cent to 20 per cent were reported by a total of 156 establishments. The weighted average increase for the 38 industries combined was 5.2 per cent and affected 21,692 employees, being 50 per cent of the total employees in the establishments concerned, and 1 per cent of the entire number of employees in all establishments in the 51 industries covered by this report.

The number of establishments reporting increases in any one industry was less than 10, with the exception of 25 in steam-railroad car shops, 19 in foundries and machine shops, 12 in iron and steel plants, and 10 in structural ironwork plants.

Two automobile-tire establishments, and one establishment each in the boot and shoe, brick and tile, lumber (millwork), and structural ironwork industries reported decreases in rates of wages during the month.

## WAGE ADJUSTMENTS OCCURRING BETWEEN JULY 15 AND AUGUST 15, 1923.

| Industry.   | Establishments.         |                             | Per cent of increase. |          | Employees affected. |  |                                  |
|---|-------------------------|-----------------------------|-----------------------|----------|---------------------|--|----------------------------------|
|   | Total number reporting. | Number reporting increases. | Range.                | Average. | Total number.       | Per cent of employees—                 |                                  |
|   |                         |                             |                       |          |                     | In establishments reporting increases. | In all establishments reporting. |
| Agricultural implements.....                                  | 73                      | 5                           | 10-16                 | 10.3     | 1,315               | 69.3                                   | 6.3                              |
| Automobiles.....  | 168                     | 2                           | 8-10                  | 9.3      | 201                 | 14.5                                   | .1                               |
| Automobile tires.....   | 58                      | (1)                         |                       |          |                     |  |                                  |
| Baking.....   | 233                     | 2                           | 11-12.5               | 11.8     | 9                   | 31.1                                   | (2)                              |
| Boots and shoes, not including rubber.                        | 150                     | (3)                         |                       |          |                     |  |                                  |
| Boots and shoes, rubber.....                                  | 7                       | (4)                         |                       |          |                     |  |                                  |
| Brick and tile.....   | 297                     | 62                          | 12.5                  | 12.5     | 71                  | 100.0                                  | .3                               |
| Car building and repairing, electric-railroad.....            | 134                     | 2                           | 5-10                  | 5.5      | 579                 | 57.5                                   | 3.9                              |
| Car building and repairing, steam-railroad.....               | 228                     | 25                          | 1.3- 8                | 2.8      | 12,330              | 80.8                                   | 7.3                              |
| Carpets.....  | 23                      | (4)                         |                       |          |                     |  |                                  |
| Carriages and wagons.....                                     | 37                      | 2                           | 5- 6                  | 5.3      | 15                  | 8.5                                    | .6                               |
| Cement.....   | 72                      | 3                           | 5-10                  | 7.1      | 461                 | 55.0                                   | 2.0                              |
| Chemicals.....  | 83                      | 2                           | 10                    | 10.0     | 36                  | 20.0                                   | .2                               |
| Clothing, men's.....  | 189                     | 2                           | 5                     | 5.0      | 83                  | 18.0                                   | .1                               |
| Clothing, women's.....  | 142                     | 2                           | 2- 5                  | 2.4      | 392                 | 92.9                                   | 2.9                              |
| Confectionery and ice cream.....                              | 139                     | 2                           | 10                    | 10.0     | 57                  | 24.1                                   | .4                               |
| Cotton goods.....   | 236                     | (1)                         |                       |          |                     |  |                                  |
| Dyeing and finishing textiles.....                            | 64                      | (1)                         |                       |          |                     |  |                                  |
| Electrical machinery, apparatus, and supplies.....            | 114                     | 4                           | 5-12                  | 8.6      | 79                  | 11.0                                   | .1                               |
| Fertilizers.....  | 95                      | 2                           | 12.5                  | 12.5     | 103                 | 100.0                                  | 1.6                              |
| Flour.....  | 259                     | 2                           | 10                    | 10.0     | 395                 | 96.8                                   | 3.0                              |
| Foundry and machine-shop products.....                        | 479                     | 19                          | 5-15                  | 10.7     | 663                 | 10.7                                   | .5                               |
| Furniture.....  | 229                     | 6                           | 5-15                  | 10.7     | 74                  | 8.9                                    | .2                               |
| Glass.....  | 83                      | 2                           | 5-20                  | 7.0      | 317                 | 49.4                                   | 1.3                              |
| Hardware.....   | 31                      | (4)                         |                       |          |                     |  |                                  |
| Hosiery and knit goods.....                                   | 210                     | 4                           | 7-10                  | 8.4      | 76                  | 10.3                                   | .1                               |
| Iron and steel.....   | 180                     | 12                          | 3.4-11.1              | 8.7      | 2,353               | 67.1                                   | 1.0                              |
| Leather.....  | 132                     | 2                           | 5.1-10                | 9.8      | 102                 | 50.0                                   | .4                               |
| Lumber:   |                         |                             |                       |          |                     |  |                                  |
| Millwork.....   | 188                     | 63                          | 5-10                  | 5.8      | 38                  | 33.0                                   | .1                               |
| Sawmills.....   | 223                     | 2                           | 2- 7                  | 5.0      | 147                 | 21.0                                   | .2                               |
| Machine tools.....  | 62                      | 4                           | 2.5-10                | 5.0      | 81                  | 80.4                                   | .1                               |
| Millinery and lace goods.....                                 | 81                      | (4)                         |                       |          |                     |  |                                  |
| Paper and pulp.....   | 170                     | 2                           | 4-10                  | 9.1      | 487                 | 93.5                                   | 1.0                              |
| Paper boxes.....  | 134                     | 5                           | 5-11                  | 8.2      | 43                  | 15.8                                   | .3                               |
| Petroleum refining.....                                       | 63                      | (4)                         |                       |          |                     |  |                                  |
| Pianos and organs.....  | 22                      | 1                           | 12.5                  | 12.5     | 50                  | 40.0                                   | .7                               |
| Pottery.....  | 47                      | (4)                         |                       |          |                     |  |                                  |
| Printing:   |                         |                             |                       |          |                     |  |                                  |
| Book and job.....   | 197                     | 4                           | 3-10                  | 8.0      | 26                  | 8.9                                    | .1                               |
| Newspaper.....  | 198                     | 5                           | 1- 7                  | 4.7      | 377                 | 37.1                                   | .9                               |
| Shipbuilding, steel.....                                      | 27                      | (4)                         |                       |          |                     |  |                                  |
| Shirts and collars.....                                       | 98                      | 1                           | 5                     | 5.0      | 75                  | 100.0                                  | .3                               |
| Silk goods.....   | 189                     | (4)                         |                       |          |                     |  |                                  |
| Slaughtering and meat packing.....                            | 81                      | 1                           | 6                     | 6.0      | 154                 | 8.7                                    | .2                               |
| Stamped and enameled ware.....                                | 30                      | 3                           | 6.5-10                | 8.0      | 38                  | 12.5                                   | .4                               |
| Steam fittings and steam and hot-water heating apparatus..... | 90                      | 4                           | 5-12.5                | 11.0     | 77                  | 37.2                                   | .2                               |
| Stoves.....   | 78                      | 3                           | 11-16                 | 12.2     | 80                  | 12.2                                   | .5                               |
| Structural ironwork.....                                      | 114                     | 710                         | 4-10                  | 5.8      | 202                 | 16.0                                   | 1.5                              |
| Sugar refining, not including beet sugar.                     | 11                      | 1                           | 10                    | 10.0     | 25                  | 62.5                                   | .3                               |
| Tobacco:  |                         |                             |                       |          |                     |  |                                  |
| Chewing and smoking.....                                      | 29                      | 2                           | 8-11.5                | 8.4      | 36                  | 8.0                                    | .1                               |
| Cigars and cigarettes.....                                    | 153                     | (4)                         |                       |          |                     |  |                                  |
| Woolen goods.....   | 159                     | 1                           | 5                     | 5.0      | 45                  | 24.8                                   | .1                               |

1 Two establishments reduced the rates of 65 of their 310 employees 17.7 per cent.

2 Less than one-tenth of 1 per cent.

3 One establishment reduced the rates of 72 of its 302 employees 4 per cent.

4 No wage change reported.

5 Also 1 establishment reduced the rates of 33 of its 38 employees 10 per cent.

6 Also 1 establishment reduced the rates of 150 of its 505 employees 8 per cent.

7 Also 1 establishment reduced the rates of 75 of its 250 employees 5 to 10 per cent.



## Employment and Earnings of Railroad Employees, July, 1922, and June and July, 1923.

THE following tables show the number of employees and the earnings in various occupations among railroad employees in July, 1923, in comparison with employment and earnings in June, 1923, and July, 1922.

The figures are for Class I roads—that is, all roads having operating revenues of \$1,000,000 a year and over.

### COMPARISON OF EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES IN JULY, 1923, WITH JULY, 1922, AND JUNE, 1923.

[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 shown under the respective groups.]

| Month and year.                                | Professional, clerical, and general. |                            |                        | Maintenance of way and structures.                         |   |                  |
|--|--------------------------------------|----------------------------|------------------------|--|---|------------------|
|  | Clerks.                              | Stenographers and typists. | Total for group.       | Laborers (extra gang and work train).                      | Track and roadway section laborers.                               | Total for group. |
| <i>Number of employees at middle of month.</i> |                                      |                            |                        |  |   |                  |
| July, 1922.....                                | 159,491                              | 23,965                     | 305,634                | 49,438   | 220,879   | 392,043          |
| June, 1923.....                                | 173,248                              | 25,237                     | 287,280                | 69,637   | 238,184   | 445,765          |
| July, 1923.....                                | 174,893                              | 25,391                     | 290,540                | 74,557   | 240,515   | 456,090          |
| <i>Total earnings.</i>                         |                                      |                            |                        |  |   |                  |
| July, 1922.....                                | \$19,486,312                         | \$2,754,320                | \$40,484,368           | \$3,425,545  | \$14,829,993  | \$32,946,630     |
| June, 1923.....                                | 21,594,139                           | 2,972,799                  | 37,758,586             | 5,981,136  | 18,395,460  | 42,220,124       |
| July, 1923.....                                | 21,785,908                           | 2,979,174                  | 38,181,773             | 6,392,322  | 18,353,322  | 42,809,993       |
| <i>Maintenance of equipment and stores.</i>    |                                      |                            |                        |  |   |                  |
|  | Carmen.                              | Machinists.                | Skilled trade helpers. | Laborers (shops, engine houses, power plants, and stores). | Common laborers (shops, engine houses, power plants, and stores). | Total for group. |
| <i>Number of employees at middle of month.</i> |                                      |                            |                        |  |   |                  |
| July, 1922.....                                | 37,167                               | 18,069                     | 40,156                 | 35,030   | 41,032  | 234,837          |
| June, 1923.....                                | 141,396                              | 68,707                     | 139,167                | 50,205   | 66,059  | 600,652          |
| July, 1923.....                                | 142,526                              | 68,845                     | 138,766                | 50,181   | 67,717  | 604,146          |
| <i>Total earnings.</i>                         |                                      |                            |                        |  |   |                  |
| July, 1922.....                                | \$6,285,775                          | \$3,562,784                | \$5,386,010            | \$3,337,743  | \$3,288,546   | \$33,240,019     |
| June, 1923.....                                | 20,430,557                           | 11,259,000                 | 15,268,401             | 4,825,609  | 5,508,569   | 78,420,918       |
| July, 1923.....                                | 20,474,089                           | 11,135,898                 | 15,226,106             | 4,950,054  | 5,627,275   | 78,624,080       |

## COMPARISON OF EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES IN JULY, 1923, WITH JULY, 1922, AND JUNE, 1923—Concluded.

| Month and year. | Transportation, other than train, engine, and yard. |  |   |  |                           | Transportation (yard masters, switch tenders, and hostlers). |
|-----------------|---|--|---|--|---------------------------|--|
|                 | Station agents.                                     | Telegraphers, telephoners, and towermen. | Truckers (stations, warehouses, and platforms). | Crossing and bridge flagmen and gatemen. | Total for group.          |  |
|                 | Number of employees at middle of month.             |  |   |  |                           |  |
| July, 1922..... | 31,423  | 26,266                                   | 35,127  | 22,144                                   | 206,447                   | 23,553   |
| June, 1923..... | 31,593  | 27,640                                   | 42,090  | 22,652                                   | 217,208                   | 26,134   |
| July, 1923..... | 31,989  | 27,705                                   | 41,967  | 23,243                                   | 219,083                   | 26,516   |
|                 | Total earnings.                                     |  |   |  |                           |  |
| July, 1922..... | \$4,656,749   | \$3,841,506                              | \$3,044,680                                     | \$1,525,627                              | \$23,989,970              | \$4,245,277  |
| June, 1923..... | 4,661,685   | 3,903,510                                | 3,921,618                                       | 1,688,114                                | 25,584,656                | 4,586,579  |
| July, 1923..... | 4,719,108   | 4,027,145                                | 3,856,315                                       | 1,742,292                                | 25,968,038                | 4,749,992  |
|                 | Transportation, train and engine.                   |  |   |  |                           |  |
|                 | Road conductors.                                    | Road brakemen and flagmen.               | Yard brakemen and yardmen.                      | Road engineers and motormen.             | Road firemen and helpers. | Total for group.   |
|                 | Number of employees at middle of month.             |  |   |  |                           |  |
| July, 1922..... | 33,836  | 69,561                                   | 44,194  | 40,500                                   | 42,354                    | 289,739  |
| June, 1923..... | 38,368  | 79,511                                   | 55,016  | 46,869                                   | 48,800                    | 340,548  |
| July, 1923..... | 38,876  | 80,159                                   | 54,645  | 47,182                                   | 49,316                    | 341,906  |
|                 | Total earnings.                                     |  |   |  |                           |  |
| July, 1922..... | \$7,388,041   | \$10,738,069                             | \$6,736,022                                     | \$9,816,972                              | \$7,263,362               | \$52,158,517   |
| June, 1923..... | 8,605,918   | 12,989,655                               | 8,836,435                                       | 11,769,124                               | 8,672,087                 | 63,585,957   |
| July, 1923..... | 8,790,342   | 13,165,556                               | 8,878,867                                       | 11,983,810                               | 8,847,059                 | 64,460,540   |

## Extent of Operation of Bituminous Coal Mines, July 21 to August 11, 1923.

CONTINUING a series of tables which have appeared in previous numbers of the MONTHLY LABOR REVIEW, the accompanying table shows for a large number of coal mines in the bituminous fields the number of mines closed the entire week and the number working certain classified hours per week from July 21 to August 11, 1923. The number of mines reporting varied each week, and the figures are not given as being a complete presentation of all mines but are believed fairly to represent the conditions as to regularity of work in the bituminous mines of the country. The mines included in this report ordinarily represent from 55 to 60 per cent of the total output of bituminous coal. The figures are based on data furnished the Bureau of Labor Statistics by the United States Geological Survey.

WORKING TIME IN BITUMINOUS COAL MINES IN THE UNITED STATES, BY WEEKS,  
JULY 21 TO AUGUST 11, 1923.

| Week ending— | Number of mines reporting. | Mines—              |           |                            |           |                                   |           |                                    |           |                                    |           |                                    |           |                                    |           |  |           |
|--------------|----------------------------|---------------------|-----------|----------------------------|-----------|-----------------------------------|-----------|------------------------------------|-----------|------------------------------------|-----------|------------------------------------|-----------|------------------------------------|-----------|--|-----------|
|              |                            | Closed entire week. |           | Working less than 8 hours. |           | Working 8 and less than 16 hours. |           | Working 16 and less than 24 hours. |           | Working 24 and less than 32 hours. |           | Working 32 and less than 40 hours. |           | Working 40 and less than 48 hours. |           | Working full time of 48 hours or more. |           |
|              |                            | No.                 | Per cent. | No.                        | Per cent. | No.                               | Per cent. | No.                                | Per cent. | No.                                | Per cent. | No.                                | Per cent. | No.                                | Per cent. | No.                                    | Per cent. |
| 1923.        |                            |                     |           |                            |           |                                   |           |                                    |           |                                    |           |                                    |           |                                    |           |  |           |
| July 21      | 2,476                      | 729                 | 29.4      | 57                         | 2.3       | 213                               | 8.6       | 355                                | 14.3      | 396                                | 16.0      | 240                                | 9.7       | 294                                | 11.9      | 192                                    | 7.8       |
| July 28      | 2,608                      | 741                 | 28.4      | 72                         | 2.8       | 247                               | 9.5       | 462                                | 17.7      | 365                                | 14.0      | 281                                | 10.8      | 294                                | 11.3      | 146                                    | 5.6       |
| Aug. 4       | 2,534                      | 723                 | 28.0      | 77                         | 3.0       | 280                               | 10.8      | 418                                | 16.2      | 402                                | 15.6      | 288                                | 11.1      | 244                                | 9.4       | 152                                    | 5.9       |
| Aug. 11      | 2,517                      | 721                 | 28.6      | 87                         | 3.5       | 300                               | 11.9      | 380                                | 15.1      | 412                                | 16.4      | 366                                | 14.5      | 210                                | 8.3       | 41                                     | 1.6       |

## Recent Employment Statistics.

Illinois.<sup>1</sup>

VOLUME of employment showed a decline of 0.4 per cent in Illinois on July 15, 1923, as compared with June 15, 1923, according to the reports of 1,484 firms employing 401,907 workers on the later date. In connection with this slowing down of the industries of the State, it must be remembered that the period under consideration was one of hot weather, vacations, and inventory taking. Uncertainty as to the future and a check in the flow of orders also had their influence on the labor market.

There was, however, a gain in July over June of 1.2 per cent in the total number on the pay rolls of 778 Chicago employers, but the increases were confined to the very large firms. Of the 1,484 firms, all showed reductions in numbers on the pay rolls except those employing 5,000 or more, and when the reports for 11 firms having 5,000 or more employees were omitted, the decrease in volume of employment for the remaining firms was 1.8 per cent. Firms with 2,000 to 5,000 employees reported the largest decline, 5.6 per cent. In the smallest firms, those with less than 100 employees, the reduction was 3.5 per cent. In fact there had been a steady decrease in volume of employment in the smallest firms in both May and June, 1923, and July employment was 11 per cent below the April level.

Of the 54 individual manufacturing industries included in the tabulations of the advisory board of the Illinois Department of Labor, 29 showed increases in volume of employment in July compared with June, while the remaining 25 showed reductions. The percentage increases and reductions in certain industries are given in the following statement:

<sup>1</sup> Illinois. Department of Labor. General Advisory Board. Review of the industrial situation in July, 1923. Mimeographed copy.

|                               | Per cent<br>of in-<br>crease or<br>decrease. |
|-------------------------------|--|
| Women's clothing.....         | +20.4  |
| Millinery.....                | +15.7  |
| Food industries.....          | +5.1   |
| Men's clothing.....           | +4.4   |
| Brick, tile, and pottery..... | -1.9   |
| Agricultural implements.....  | -3.6   |
| Glass.....                    | -4.5   |
| Iron and steel.....           | -4.6   |
| Automobiles.....              | -6.6   |
| Lime and cement products..... | -7.6   |
| Paints.....                   | -10.5  |

There was an unfavorable shift in the free employment office index showing the proportion of workers to jobs. In July, for the first time since February, applicants for positions outnumbered the opportunities for work, there being 112.4 persons for 100 jobs. In January there were 132 persons to 100 jobs. The July, 1922, index was 109. In Chicago, in July, 1923, there were 3,500 more applicants than vacancies to be filled—135 persons for every 100 jobs. So far as public employment office records reflect conditions, a man without a job stood a better chance of getting one last December in Chicago, despite the closing down of outdoor work, than he did in July, 1923. As to the volume of employment in the latter month, it was at least 6.5 per cent above that of December, 1922. The inference is that the reports that crowds of workers are going to Chicago from other sections of the country are founded on facts.

New York.<sup>1</sup>

THE following statistics show the percentage changes in volume of employment and amount of pay roll in manufacturing establishments in New York State and New York City from April to May, 1923, from March to April, 1923, and from May, 1922, to May, 1923:

## COURSE OF EMPLOYMENT IN REPRESENTATIVE MANUFACTURING ESTABLISHMENTS IN NEW YORK STATE AND NEW YORK CITY.

| Industry.                                 | Percentage of increase (+) or decrease (-). |                                       |                                   |                                     |                                       |                                   |
|---|---|---------------------------------------|-----------------------------------|-------------------------------------|---------------------------------------|-----------------------------------|
|   | Number of employees.                        |                                       |                                   | Amount of pay roll.                 |                                       |                                   |
|   | April,<br>1923, to<br>May,<br>1923.         | March,<br>1923, to<br>April,<br>1923. | May,<br>1922, to<br>May,<br>1923. | April,<br>1923, to<br>May,<br>1923. | March,<br>1923, to<br>April,<br>1923. | May,<br>1922, to<br>May,<br>1923. |
| <i>New York State.</i>                    |   |                                       |                                   |                                     |                                       |                                   |
| Stone, clay, and glass products.....      | +1.9  | +8.1                                  | +12.8                             | +6.0                                | +11.5                                 | +33.8                             |
| Metals, machinery, and conveyances.....   | -.4   | +3                                    | +31.7                             | +2.8                                | +2.0                                  | +54.3                             |
| Wood manufactures.....                    | -1.2  | ( <sup>1</sup> )                      | +14.4                             | +1.7                                | +6                                    | +25.7                             |
| Furs, leather, and rubber goods.....      | +4  | -1.0                                  | +17.3                             | +1.7                                | -1.7                                  | +26.4                             |
| Chemicals, oils, paints, etc.....         | -.8   | +1.3                                  | +7.8                              | +7                                  | +3.3                                  | +14.6                             |
| Paper.....                                | -.8   | +3.5                                  | +20.5                             | +2.9                                | +7.9                                  | +34.2                             |
| Printing and paper goods.....             | -.8   | -.7                                   | +4.1                              | -.9                                 | -1.6                                  | +8.3                              |
| Textiles.....                             | -1.8  | +3                                    | +6.2                              | +4.6                                | +2                                    | +21.3                             |
| Clothing, millinery, laundering, etc..... | -3.6  | -1.4                                  | +11.0                             | -6.4                                | -5.8                                  | +21.2                             |
| Food, beverages, and tobacco.....         | ( <sup>1</sup> )                            | -4.2                                  | +6                                | +3.2                                | -3.8                                  | +7.1                              |
| Water, light, and power.....              | +1.4  | +1.4                                  | +10.8                             | +2.5                                | +2.2                                  | +13.3                             |
| Total.....                                | -0.9  | -0.2                                  | +16.2                             | +1.4                                | +0.1                                  | +30.6                             |

<sup>1</sup> New York. The Industrial Commissioner. The industrial bulletin, Albany. June, 1923, pp. 196 and 199.

## COURSE OF EMPLOYMENT IN REPRESENTATIVE MANUFACTURING ESTABLISHMENTS IN NEW YORK STATE AND NEW YORK CITY—Concluded.

| Industry.                                 | Percentage of increase (+) or decrease (-). |                              |                            |                            |                              |                            |
|---|---|------------------------------|----------------------------|----------------------------|------------------------------|----------------------------|
|   | Number of employees.                        |                              |                            | Amount of pay roll.        |                              |                            |
|   | April, 1923, to May, 1923.                  | March, 1923, to April, 1923. | May, 1922, to April, 1923. | April, 1923, to May, 1923. | March, 1923, to April, 1923. | May, 1922, to April, 1923. |
| <i>New York City.</i>                     |   |                              |                            |                            |                              |                            |
| Stone, clay, and glass products.....      | -4  | +6                           | +2                         | +1                         | +9                           | +14                        |
| Metals, machinery, and conveyances.....   | -1  | +1                           | +18                        | +2                         | +2                           | +28                        |
| Wood manufactures.....                    | -1  | +1                           | +15                        | +1                         | +2                           | +26                        |
| Furs, leather, and rubber goods.....      | -1  | -3                           | +10                        | -1                         | -4                           | +18                        |
| Chemicals, oils, paints, etc.....         | -1  | +3                           | +10                        | (2)                        | +5                           | +17                        |
| Paper.....                                | -1  | -1                           | +1                         | -1                         | -3                           | +6                         |
| Printing and paper goods.....             | (1)   | +4                           | +4                         | -1                         | +4                           | +17                        |
| Textiles.....                             | -5  | -2                           | +9                         | -9                         | -7                           | +16                        |
| Clothing, millinery, laundering, etc..... | -1  | -5                           | -1                         | +3                         | -6                           | +4                         |
| Food, beverages, and tobacco.....         | +2  | -1                           | +15                        | +4                         | (2)                          | +15                        |
| Water, light, and power.....              |   |                              |                            |                            |                              |                            |
| Total.....                                | -2  | -1                           | +8                         | -1                         | -2                           | +15                        |

<sup>1</sup> Decrease of less than one-half of 1 per cent.<sup>2</sup> Increase of less than one-half of 1 per cent.

The table given below gives the records of the New York State employment offices for May, 1923:

COMPARISON OF PERSONS SEEKING WORK AND WORKERS CALLED FOR AT STATE EMPLOYMENT OFFICES IN MAY, 1923.<sup>1</sup>

| Occupation.                                      | Workers seeking employment (registrations and renewals). |         |        | Workers called for by employers. |         |        | Places reported filled. |         |        |
|--|--|---------|--------|----------------------------------|---------|--------|-------------------------|---------|--------|
|  | Male.  | Female. | Total. | Male.                            | Female. | Total. | Male.                   | Female. | Total. |
| Agriculture.....                                 | 837  | 216     | 1,053  | 632                              | 61      | 693    | 409                     | 21      | 430    |
| Building and construction.....                   | 1,387  | .....   | 1,387  | 1,281                            | .....   | 1,281  | 690                     | 1       | 691    |
| Casual workers.....                              | 656  | 4,420   | 5,076  | 1,684                            | 5,046   | 6,730  | 1,609                   | 4,518   | 6,127  |
| Common laborers (other than casual workers)..... | 4,332  | .....   | 4,332  | 5,477                            | .....   | 5,477  | 3,783                   | .....   | 3,783  |
| Clerical.....                                    | 987  | 1,408   | 2,395  | 460                              | 959     | 1,419  | 259                     | 505     | 764    |
| Domestic and personal service.....               | 53   | 548     | 601    | 9                                | 886     | 895    | .....                   | 255     | 255    |
| Hotels, restaurants, and institutions.....       | 1,311  | 606     | 1,917  | 1,278                            | 928     | 2,206  | 655                     | 296     | 951    |
| Manufacturing.....                               | 2,737  | 373     | 3,110  | 3,062                            | 1,009   | 4,071  | 1,342                   | 297     | 1,639  |
| Professional and technical.....                  | 60   | 8       | 68     | 19                               | 6       | 25     | 14                      | 2       | 16     |
| Transportation and public utilities.....         | 983  | 5       | 988    | 808                              | 5       | 813    | 478                     | 3       | 481    |
| Trade (wholesale and retail).....                | 1,268  | 296     | 1,564  | 1,124                            | 477     | 1,601  | 683                     | 201     | 884    |
| Miscellaneous.....                               | 810  | 93      | 903    | 711                              | 57      | 768    | 389                     | 20      | 409    |
| Total.....                                       | 15,421   | 7,973   | 23,394 | 16,545                           | 9,434   | 25,979 | 10,311                  | 6,119   | 16,430 |

<sup>1</sup> Five weeks, Apr. 30 to June 2, inclusive.



## INDUSTRIAL ACCIDENTS AND HYGIENE.

### Accident Occurrence in the Iron and Steel Industry, 1922.

By LUCIAN W. CHANEY.

BULLETIN 339 of the Bureau of Labor Statistics brings the accident statistics of the iron and steel industry up to the year 1921.

The present review extends the consideration to the year 1922. The year 1922 was one of materially reviving industrial activity. This is shown by the fact that almost without exception the exposure recorded from department to department is in excess of that in 1921. It is now a well-established fact that a period in which working forces are being built up and industrial operations are being hastened tends to be a period of rising accident rates. When this rising activity is finally stabilized at a new level the rise in accident rates usually stops and as time goes on the rate may again move downward.

The factors in this industrial phenomenon are still sufficiently unfamiliar to make it proper to restate them. The most important factor in rising rates when activity increases is the presence in the working force of relatively inexperienced men. Men new to the plant if not to the industry must be taken on. These will suffer both more numerous and more severe accidents than will the more experienced. Some influence on accident rates must be attributed to the stress incident to hastened production, but that factor is of comparatively small importance. This becomes evident when the fact is considered that as the force approaches completeness the product per man will, as a rule, still increase when the accident rate is no longer rising, and may continue to do so when the accident rate begins to fall.

With these factors pertaining to the men employed goes that of the safety organizations. If there is no such organization all the changes in accident rates indicated will be much exaggerated. In proportion to the excellence of the organization they will be modified, though even the best organization will not be able entirely to suppress the tendency to rising rates.

The year 1922 illustrates these tendencies at many points. Table 1 contains summary figures for the important departments by which the size, number of cases, frequency rates, and severity rates may be compared.

TABLE 1.—SUMMARY OF ACCIDENTS IN THE IRON AND STEEL INDUSTRY IN THE UNITED STATES DURING THE YEAR 1922, BY DEPARTMENTS.

| Department.                       | Equivalent number of full-year workers. | Number of cases. |                       |                       |        | Accident frequency rates (per 1,000,000 hours' exposure). |                       |                       |        | Accident severity rates (per 1,000 hours' exposure). |                       |                       |        |
|-----------------------------------|---|------------------|-----------------------|-----------------------|--------|---|-----------------------|-----------------------|--------|--|-----------------------|-----------------------|--------|
|                                   |   | Death.           | Permanent disability. | Temporary disability. | Total. | Death.  | Permanent disability. | Temporary disability. | Total. | Death.   | Permanent disability. | Temporary disability. | Total. |
| Blast furnaces....                | 17,933                                  | 38               | 35                    | 1,586                 | 1,659  | 0.7   | 0.7                   | 29.4                  | 30.8   | 4.2  | 0.4                   | 0.5                   | 5.1    |
| Bessemer.....                     | 4,778                                   | 2                | 8                     | 233                   | 243    | .1  | .6                    | 16.3                  | 17.0   | .8   | .5                    | .3                    | 1.6    |
| Open hearths.....                 | 19,805                                  | 22               | 46                    | 1,936                 | 2,004  | .4  | .8                    | 32.6                  | 33.8   | 2.2  | .9                    | .5                    | 3.6    |
| Foundries.....                    | 22,770                                  | 12               | 59                    | 4,134                 | 4,205  | .2  | .9                    | 60.5                  | 61.6   | 1.1  | .9                    | .7                    | 2.7    |
| Bar mills.....                    | 3,780                                   | 7                | 10                    | 392                   | 409    | .6  | .9                    | 34.6                  | 36.1   | 3.7  | .8                    | .5                    | 5.0    |
| Heavy rolling mills.....          | 14,574                                  | 9                | 56                    | 752                   | 817    | .2  | 1.3                   | 17.2                  | 18.7   | 1.2  | .9                    | .4                    | 2.5    |
| Plate and skelp mills.....        | 6,198                                   | 2                | 26                    | 581                   | 609    | .1  | 1.4                   | 31.2                  | 32.7   | .6   | .9                    | .5                    | 2.0    |
| Rod mills.....                    | 2,645                                   | 1                | 5                     | 196                   | 202    | .1  | .6                    | 24.7                  | 25.4   | .8   | .5                    | .5                    | 1.8    |
| Sheet mills.....                  | 24,391                                  | 10               | 66                    | 2,951                 | 3,027  | .1  | .9                    | 40.3                  | 41.3   | .8   | .8                    | .9                    | 2.5    |
| Sheets, hot rolling.....          | 7,476                                   | 3                | 8                     | 721                   | 732    | .1  | .4                    | 32.1                  | 32.6   | .8   | .1                    | .5                    | 1.4    |
| Sheets, cold rolling.....         | 1,226                                   | 1                | 3                     | 147                   | 151    | .3  | .8                    | 40.0                  | 41.1   | 1.6  | 1.5                   | .5                    | 3.6    |
| Tube mills.....                   | 19,535                                  | 6                | 40                    | 1,332                 | 1,378  | .1  | .7                    | 22.7                  | 23.5   | .6   | .6                    | .4                    | 1.6    |
| Miscellaneous rolling.....        | 19,382                                  | 10               | 59                    | 2,416                 | 2,485  | .2  | 1.0                   | 41.5                  | 42.7   | 1.0  | .9                    | .7                    | 2.6    |
| Fabricating shops.....            | 16,184                                  | 14               | 41                    | 3,381                 | 3,436  | .3  | .8                    | 69.6                  | 70.7   | 1.7  | .8                    | .8                    | 3.3    |
| Forge shops.....                  | 1,514                                   | 2                | 8                     | 233                   | 243    | .4  | 1.8                   | 51.3                  | 53.5   | 2.6  | 1.7                   | .9                    | 5.2    |
| Wire drawing.....                 | 13,836                                  | 3                | 53                    | 837                   | 893    | .1  | 1.3                   | 20.2                  | 21.6   | .4   | 1.3                   | .4                    | 2.1    |
| Wire fence.....                   | 1,528                                   | -----            | 6                     | 85                    | 91     | -----   | 1.3                   | 18.5                  | 19.8   | -----  | .7                    | .4                    | 1.1    |
| Nails.....                        | 2,366                                   | 1                | 10                    | 121                   | 132    | .1  | 1.4                   | 17.0                  | 18.5   | .8   | 1.3                   | .3                    | 2.4    |
| Electrical.....                   | 3,528                                   | 4                | 1                     | 164                   | 169    | .4  | .1                    | 15.5                  | 16.0   | 2.3  | .1                    | .4                    | 2.8    |
| Mechanical.....                   | 30,324                                  | 25               | 75                    | 1,626                 | 1,726  | .3  | .8                    | 17.9                  | 19.0   | 1.6  | .7                    | .3                    | 2.6    |
| Power.....                        | 3,361                                   | -----            | 5                     | 115                   | 120    | -----   | .5                    | 11.4                  | 11.9   | -----  | .7                    | .2                    | .9     |
| Yards.....                        | 7,969                                   | 15               | 16                    | 536                   | 567    | .6  | .7                    | 22.4                  | 23.7   | 3.8  | .5                    | .5                    | 4.8    |
| Axle works.....                   | 490                                     | -----            | -----                 | 11                    | 11     | -----   | -----                 | 7.5                   | 7.5    | -----  | -----                 | .1                    | .1     |
| Car wheels.....                   | 1,102                                   | -----            | -----                 | 78                    | 78     | -----   | -----                 | 23.6                  | 23.6   | -----  | -----                 | .6                    | .6     |
| Docks and ore yards.....          | 271                                     | 3                | 3                     | 7                     | 13     | 3.7   | 3.7                   | 8.6                   | 16.0   | 22.2   | 7.6                   | .3                    | 30.1   |
| Erection of structural steel..... | 595                                     | 5                | 2                     | 129                   | 136    | 2.8   | 1.1                   | 72.3                  | 76.2   | 16.8   | 2.5                   | 1.8                   | 21.1   |
| Coke ovens.....                   | 6,554                                   | 2                | 1                     | 207                   | 210    | .1  | .1                    | 10.5                  | 10.7   | .6   | .2                    | .2                    | 1.0    |
| Unclassified.....                 | 79,405                                  | 39               | 233                   | 6,848                 | 7,128  | .2  | 1.0                   | 28.7                  | 29.9   | 1.0  | .8                    | .4                    | 2.2    |

The only unusual thing about Table 1 is the severity rate of docks and ore yards (30.1 days per 1,000 hours' exposure). This is a small department where there is considerable liability to fatal injury, and this tends to make the severity rate extremely variable from year to year.

The other departments having high rates are much in their usual order, for example, erection of structural steel (severity rate 21.1 days), blast furnaces (5.1 days), bar mills (5 days), and yards (4.8 days).

Table 2 presents the record since 1910, by means of two 5-year periods (1910 to 1914 and 1915 to 1919) and three individual years (1920, 1921, and 1922):

TABLE 2.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY IN THE UNITED STATES, 1910 TO 1922, BY DEPARTMENTS.

| Period or year.      | Equivalent number of 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-<br>nent<br>disabil-<br>ity. | Tem-<br>porary<br>disabil-<br>ity. | Total.  | Death.  | Perma-<br>nent<br>disabil-<br>ity. | Tem-<br>porary<br>disabil-<br>ity. | Total. | Death.   | Perma-<br>nent<br>disabil-<br>ity. | Tem-<br>porary<br>disabil-<br>ity. | Total. |
| The industry.        |   |                  |                                    |                                    |         |   |                                    |                                    |        |  |                                    |                                    |        |
| 1910-1914..          | 1,310,911                               | 1,524            | 5,080                              | 226,305                            | 232,954 | 0.4   | 1.3                                | 57.5                               | 59.2   | 2.3  | 1.1                                | 0.7                                | 4.1    |
| 1915-1919..          | 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.....            | 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    |
| Blast furnaces.      |   |                  |                                    |                                    |         |   |                                    |                                    |        |  |                                    |                                    |        |
| 1910-1914..          | 126,582                                 | 324              | 366                                | 22,578                             | 23,268  | 0.9   | 1.0                                | 60.4                               | 62.3   | 5.2  | 1.0                                | 0.8                                | 7.0    |
| 1915-1919..          | 136,166                                 | 317              | 312                                | 15,287                             | 15,916  | .8  | .8                                 | 37.4                               | 39.0   | 4.7  | .9                                 | .5                                 | 6.1    |
| 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    |
| Bessemer department. |   |                  |                                    |                                    |         |   |                                    |                                    |        |  |                                    |                                    |        |
| 1910-1914..          | 28,101                                  | 57               | 146                                | 7,367                              | 7,570   | 0.7   | 1.7                                | 87.4                               | 89.8   | 4.0  | 1.1                                | 1.3                                | 6.4    |
| 1915-1919..          | 25,645                                  | 62               | 112                                | 4,262                              | 4,436   | .8  | 1.5                                | 55.4                               | 57.7   | 4.8  | 1.1                                | 1.0                                | 6.9    |
| 1920.....            | 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    |
| 1922.....            | 4,778                                   | 2                | 8                                  | 233                                | 243     | .1  | .6                                 | 16.3                               | 17.0   | .8   | .5                                 | .3                                 | 1.6    |
| Open hearths.        |   |                  |                                    |                                    |         |   |                                    |                                    |        |  |                                    |                                    |        |
| 1910-1914..          | 71,293                                  | 143              | 333                                | 15,809                             | 16,285  | 0.7   | 1.5                                | 72.8                               | 75.0   | 4.0  | 1.6                                | 1.0                                | 6.6    |
| 1915-1919..          | 86,175                                  | 191              | 317                                | 12,563                             | 13,071  | .7  | 1.2                                | 48.6                               | 50.5   | 4.4  | 1.2                                | .9                                 | 6.5    |
| 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    |
| Foundries.           |   |                  |                                    |                                    |         |   |                                    |                                    |        |  |                                    |                                    |        |
| 1910-1914..          | 95,917                                  | 84               | 449                                | 17,765                             | 18,298  | 0.3   | 1.6                                | 61.7                               | 63.6   | 1.8  | 1.1                                | 0.7                                | 3.6    |
| 1915-1919..          | 92,746                                  | 84               | 277                                | 16,604                             | 16,965  | .3  | 1.0                                | 59.7                               | 61.0   | 1.8  | .9                                 | .7                                 | 3.4    |
| 1920.....            | 35,300                                  | 13               | 97                                 | 6,688                              | 6,798   | .1  | .9                                 | 63.2                               | 64.2   | .7   | .8                                 | .8                                 | 2.3    |
| 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                                 | .7                                 | 2.7    |
| Bar mills.           |   |                  |                                    |                                    |         |   |                                    |                                    |        |  |                                    |                                    |        |
| 1915-1919..          | 24,081                                  | 20               | 77                                 | 4,745                              | 4,842   | 0.3   | 1.1                                | 65.6                               | 67.0   | 1.7  | 0.7                                | 0.7                                | 3.1    |
| 1920.....            | 3,880                                   | 1                | 5                                  | 525                                | 527     | .1  | .4                                 | 44.8                               | 45.3   | .5   | .2                                 | .5                                 | 1.2    |
| 1921.....            | 1,912                                   | .....            | 5                                  | 228                                | 233     | .....   | .9                                 | 39.8                               | 40.7   | .....  | 1.0                                | .6                                 | 1.6    |
| 1922.....            | 3,780                                   | 7                | 10                                 | 392                                | 409     | .6  | .9                                 | 34.6                               | 36.1   | 3.7  | .8                                 | .5                                 | 5.0    |
| Heavy rolling mills. |   |                  |                                    |                                    |         |   |                                    |                                    |        |  |                                    |                                    |        |
| 1910-1914..          | 67,663                                  | 74               | 261                                | 9,007                              | 9,342   | 0.4   | 1.3                                | 44.4                               | 46.1   | 2.1  | 0.9                                | 0.6                                | 3.6    |
| 1915-1919..          | 75,166                                  | 91               | 275                                | 6,950                              | 7,316   | .4  | 1.2                                | 30.8                               | 32.4   | 2.4  | 1.0                                | .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    |

TABLE 2.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY IN THE UNITED STATES, 1910 TO 1922, BY DEPARTMENTS—Continued.

| Period or year.                    | Equiv-<br>alent num-<br>ber of<br>full-year<br>workers. | Number of cases. |                                      |                                 |        | Accident frequency rates<br>(per 1,000,000 hours' ex-<br>posure). |                                      |                                 |        | Accident severity rates<br>(per 1,000 hours' ex-<br>posure). |                                      |                                 |        |
|------------------------------------|---|------------------|--------------------------------------|---------------------------------|--------|---|--------------------------------------|---------------------------------|--------|--|--------------------------------------|---------------------------------|--------|
|                                    |   | Death.           | Perma-<br>nent dis-<br>abil-<br>ity. | Tempo-<br>rary disabil-<br>ity. | Total. | Death.  | Perma-<br>nent dis-<br>abil-<br>ity. | Tempo-<br>rary disabil-<br>ity. | Total. | Death.   | Perma-<br>nent dis-<br>abil-<br>ity. | Tempo-<br>rary disabil-<br>ity. | Total. |
| Plate mills.                       |   |                  |                                      |                                 |        |   |                                      |                                 |        |  |                                      |                                 |        |
| 1910-1914..                        | 27,711  | 19               | 105                                  | 3,129                           | 3,253  | 0.3   | 1.6                                  | 48.0                            | 49.9   | 1.8  | 1.4                                  | 0.7                             | 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.....                          | 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    |
| Rod mills.                         |   |                  |                                      |                                 |        |   |                                      |                                 |        |  |                                      |                                 |        |
| 1915-1919..                        | 15,218  | 14               | 70                                   | 1,721                           | 1,805  | 0.3   | 1.5                                  | 37.7                            | 39.5   | 1.8  | 1.3                                  | 0.5                             | 3.6    |
| 1920.....                          | 3,729   | 1                | 9                                    | 344                             | 354    | .1  | .8                                   | 30.7                            | 31.6   | .5   | .5                                   | .4                              | 1.5    |
| 1921.....                          | 2,099   | .....            | 6                                    | 126                             | 132    | .....   | 1.0                                  | 20.0                            | 21.0   | .....  | .7                                   | .3                              | 1.0    |
| 1922.....                          | 2,645   | 1                | 5                                    | 196                             | 202    | .1  | .6                                   | 24.7                            | 25.4   | .8   | .5                                   | .5                              | 1.8    |
| Sheet mills. <sup>1</sup>          |   |                  |                                      |                                 |        |   |                                      |                                 |        |  |                                      |                                 |        |
| 1910-1914..                        | 128,423   | 88               | 308                                  | 19,262                          | 19,658 | 0.2   | 0.9                                  | 50.0                            | 51.1   | 1.4  | 0.6                                  | 0.6                             | 2.6    |
| 1915-1919..                        | 104,335   | 37               | 172                                  | 10,034                          | 10,243 | .1  | .5                                   | 32.1                            | 32.7   | .7   | .4                                   | .4                              | 1.5    |
| 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    |
| Sheets, hot rolling. <sup>1</sup>  |   |                  |                                      |                                 |        |   |                                      |                                 |        |  |                                      |                                 |        |
| 1920.....                          | 6,660   | 2                | 12                                   | 624                             | 638    | 0.1   | 0.6                                  | 31.2                            | 31.9   | 0.6  | 0.5                                  | 0.4                             | 1.5    |
| 1921.....                          | 3,728   | 3                | 3                                    | 424                             | 430    | .3  | .3                                   | 37.9                            | 38.5   | 1.6  | .2                                   | .5                              | 2.3    |
| 1922.....                          | 7,476   | 3                | 8                                    | 721                             | 732    | .1  | .4                                   | 32.1                            | 32.6   | .8   | .1                                   | .5                              | 1.4    |
| Sheets, cold rolling. <sup>1</sup> |   |                  |                                      |                                 |        |   |                                      |                                 |        |  |                                      |                                 |        |
| 1920.....                          | 1,205   | 1                | 6                                    | 230                             | 237    | 0.3   | 1.7                                  | 63.9                            | 65.9   | 1.7  | 0.5                                  | 0.7                             | 2.9    |
| 1921.....                          | 506   | 1                | 1                                    | 75                              | 77     | .7  | .7                                   | 49.4                            | 50.7   | 4.0  | 1.2                                  | .7                              | 5.9    |
| 1922.....                          | 1,226   | 1                | 3                                    | 147                             | 151    | .3  | .8                                   | 40.0                            | 41.1   | 1.6  | 1.5                                  | .5                              | 3.6    |
| Tube mills.                        |   |                  |                                      |                                 |        |   |                                      |                                 |        |  |                                      |                                 |        |
| 1910-1914..                        | 73,338  | 36               | 249                                  | 8,623                           | 8,908  | 0.2   | 1.1                                  | 39.2                            | 40.5   | 1.0  | 0.7                                  | 0.5                             | 2.2    |
| 1915-1919..                        | 75,108  | 38               | 178                                  | 4,825                           | 5,041  | .2  | .8                                   | 21.4                            | 22.4   | 1.0  | .5                                   | .3                              | 1.8    |
| 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    |
| Miscellaneous rolling mills.       |   |                  |                                      |                                 |        |   |                                      |                                 |        |  |                                      |                                 |        |
| 1910-1914..                        | 104,829   | 82               | 360                                  | 21,501                          | 21,943 | 0.3   | 1.2                                  | 71.8                            | 73.3   | 1.7  | 1.1                                  | 0.9                             | 3.7    |
| 1915-1919..                        | 102,696   | 253              | 218                                  | 12,644                          | 12,915 | .2  | .7                                   | 41.0                            | 41.9   | 1.0  | .5                                   | .6                              | 2.1    |
| 1920.....                          | 29,898  | 19               | 81                                   | 3,713                           | 3,813  | .2  | .9                                   | 41.4                            | 42.5   | 1.3  | .8                                   | .6                              | 2.7    |
| 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    |

<sup>1</sup> In the sheet mills all employees are considered in computing the ratio. In hot and cold rolling only those are considered who are concerned with the particular processes.

[1910]

TABLE 2.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY IN THE UNITED STATES, 1910 TO 1922, BY DEPARTMENTS—Continued.

| Period or year.        | Equivalent number of 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-<br>nent<br>dis-<br>abil-<br>ity. | Tempo-<br>rary<br>disabil-<br>ity. | Total.  | Death.  | Perma-<br>nent<br>dis-<br>abil-<br>ity. | Tempo-<br>rary<br>disabil-<br>ity. | Total. | Death.   | Perma-<br>nent<br>dis-<br>abil-<br>ity. | Tempo-<br>rary<br>disabil-<br>ity. | Total. |
| Fabricating shops.     |   |                  |   |                                    |         |   |   |                                    |        |  |   |                                    |        |
| 1910-1914..            | 108,538                                 | 98               | 425                                     | 25,506                             | 26,029  | 0.3   | 1.3                                     | 78.3                               | 79.9   | 1.7  | 0.9                                     | 0.8                                | 3.4    |
| 1915-1919..            | 80,985                                  | 59               | 163                                     | 13,195                             | 131,417 | .2  | .7                                      | 54.3                               | 55.2   | 1.5  | .5                                      | .6                                 | 2.6    |
| 1920.....              | 17,216                                  | 14               | 68                                      | 2,721                              | 2,803   | .2  | 1.3                                     | 52.7                               | 54.2   | 1.6  | 1.1                                     | .6                                 | 3.3    |
| 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    |
| Forge shops.           |   |                  |   |                                    |         |   |   |                                    |        |  |   |                                    |        |
| 1910-1914..            | 6,249                                   | 8                | 19                                      | 1,080                              | 1,107   | 0.4   | 1.0                                     | 57.6                               | 59.0   | 2.6  | 0.6                                     | 0.7                                | 3.9    |
| 1915-1919..            | 12,667                                  | 9                | 45                                      | 2,189                              | 2,243   | .2  | 1.2                                     | 57.6                               | 59.0   | 1.4  | 1.1                                     | .9                                 | 3.4    |
| 1920.....              | 2,197                                   | .....            | 5                                       | 380                                | 385     | .....   | .8                                      | 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    |
| Wire drawing.          |   |                  |   |                                    |         |   |   |                                    |        |  |   |                                    |        |
| 1910-1914..            | 59,481                                  | 21               | 383                                     | 11,504                             | 11,908  | 0.1   | 2.1                                     | 63.5                               | 65.7   | 0.7  | 1.9                                     | 0.6                                | 3.2    |
| 1915-1919..            | 52,666                                  | 12               | 321                                     | 6,912                              | 7,245   | .1  | 2.0                                     | 43.7                               | 45.8   | .5   | 1.6                                     | .5                                 | 2.6    |
| 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    |
| Wire fence.            |   |                  |   |                                    |         |   |   |                                    |        |  |   |                                    |        |
| 1915-1919..            | 7,311                                   | 1                | 47                                      | 684                                | 732     | 0.1   | 2.1                                     | 31.2                               | 33.4   | 0.3  | 1.6                                     | 0.3                                | 2.2    |
| 1920.....              | 1,097                                   | .....            | 6                                       | 48                                 | 54      | .....   | 1.8                                     | 14.6                               | 16.4   | .....  | 2.9                                     | .2                                 | 3.1    |
| 1921.....              | 1,095                                   | .....            | 3                                       | 79                                 | 82      | .....   | .9                                      | 24.1                               | 30.0   | .....  | .8                                      | .4                                 | 1.2    |
| 1922.....              | 1,528                                   | .....            | 6                                       | 85                                 | 91      | .....   | 1.3                                     | 18.5                               | 19.8   | .....  | .7                                      | .4                                 | 1.1    |
| Nails.                 |   |                  |   |                                    |         |   |   |                                    |        |  |   |                                    |        |
| 1915-1919..            | 9,818                                   | 2                | 56                                      | 782                                | 840     | 0.1   | 1.9                                     | 26.5                               | 28.5   | 0.4  | 1.3                                     | 0.3                                | 2.0    |
| 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    |
| Electrical department. |   |                  |   |                                    |         |   |   |                                    |        |  |   |                                    |        |
| 1910-1914..            | 14,921                                  | 33               | 48                                      | 1,957                              | 2,038   | 0.8   | 1.1                                     | 45.2                               | 47.1   | 4.6  | 1.2                                     | 0.5                                | 6.3    |
| 1915-1919..            | 16,023                                  | 46               | 40                                      | 1,851                              | 1,937   | 1.0   | .8                                      | 38.5                               | 40.3   | 5.7  | 1.0                                     | .5                                 | 7.2    |
| 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    |
| Mechanical department. |   |                  |   |                                    |         |   |   |                                    |        |  |   |                                    |        |
| 1910-1914..            | 97,161                                  | 104              | 392                                     | 17,794                             | 18,292  | 0.4   | 1.3                                     | 61.0                               | 62.7   | 2.1  | 1.1                                     | 0.8                                | 4.0    |
| 1915-1919..            | 154,846                                 | 154              | 492                                     | 18,556                             | 19,202  | .3  | 1.1                                     | 39.9                               | 41.3   | 2.0  | 1.0                                     | .5                                 | 3.5    |
| 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    |



TABLE 2.—ACCIDENTS AND ACCIDENT RATES IN THE IRON AND STEEL INDUSTRY IN THE UNITED STATES, 1910 TO 1922, BY DEPARTMENTS—Concluded.

| Period or year.               | Equiv-<br>alent num-<br>ber of<br>full-year<br>workers. | Number of cases. |                                      |                                      |        | Accident frequency rates<br>(per 1,000,000 hours' ex-<br>posure). |                                      |                                      |        | Accident severity rates<br>(per 1,000 hours' ex-<br>posure). |                                      |                                      |        |
|-------------------------------|---|------------------|--------------------------------------|--------------------------------------|--------|---|--------------------------------------|--------------------------------------|--------|--|--------------------------------------|--------------------------------------|--------|
|                               |   | Death.           | Perma-<br>nent dis-<br>abil-<br>ity. | Tempo-<br>rary dis-<br>abil-<br>ity. | Total. | Death.  | Perma-<br>nent dis-<br>abil-<br>ity. | Tempo-<br>rary dis-<br>abil-<br>ity. | Total. | Death.   | Perma-<br>nent dis-<br>abil-<br>ity. | Tempo-<br>rary dis-<br>abil-<br>ity. | Total. |
| Power houses.                 |   |                  |                                      |                                      |        |   |                                      |                                      |        |  |                                      |                                      |        |
| 1912-1914..                   | 8,083   | 6                | 21                                   | 544                                  | 571    | 0.2   | 0.9                                  | 22.4                                 | 23.5   | 1.5  | 0.8                                  | 0.3                                  | 2.6    |
| 1915-1919..                   | 13,219  | 27               | 21                                   | 739                                  | 787    | .7  | .5                                   | 18.6                                 | 19.8   | 4.1  | .6                                   | .3                                   | 5.0    |
| 1920.....                     | 4,591   | 4                | 1                                    | 172                                  | 177    | .3  | .1                                   | 12.5                                 | 12.9   | 1.7  | (2)                                  | .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     |
| Yards.                        |   |                  |                                      |                                      |        |   |                                      |                                      |        |  |                                      |                                      |        |
| 1910-1914..                   | 55,932  | 112              | 243                                  | 8,112                                | 8,467  | 0.7   | 1.5                                  | 48.6                                 | 50.8   | 4.0  | 1.4                                  | 0.6                                  | 6.0    |
| 1915-1919..                   | 53,890  | 106              | 258                                  | 5,685                                | 6,049  | .7  | 1.6                                  | 35.2                                 | 37.5   | 3.9  | 1.6                                  | .6                                   | 6.1    |
| 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    |
| Axle works.                   |   |                  |                                      |                                      |        |   |                                      |                                      |        |  |                                      |                                      |        |
| 1912-1914..                   | 1,326   | 2                | 4                                    | 438                                  | 444    | 0.5   | 1.0                                  | 110.1                                | 111.6  | 3.0  | 2.1                                  | 1.6                                  | 6.7    |
| 1915-1919..                   | 2,467   | .....            | 4                                    | 338                                  | 342    | .....   | .5                                   | 45.7                                 | 46.2   | .....  | 1.2                                  | .7                                   | 1.9    |
| 1920.....                     | 743   | .....            | .....                                | 100                                  | 100    | .....   | .....                                | 44.8                                 | 44.8   | .....  | .....                                | .7                                   | .7     |
| 1921.....                     | 242   | 1                | .....                                | 12                                   | 13     | 1.3   | .....                                | 16.5                                 | 17.9   | 8.3  | .....                                | .5                                   | 8.7    |
| 1922.....                     | 490   | .....            | .....                                | 11                                   | 11     | .....   | .....                                | 7.5                                  | 7.5    | .....  | .....                                | .1                                   | .1     |
| Car wheels.                   |   |                  |                                      |                                      |        |   |                                      |                                      |        |  |                                      |                                      |        |
| 1912-1914..                   | 2,367   | 3                | 15                                   | 609                                  | 627    | 0.4   | 2.1                                  | 85.8                                 | 88.3   | 2.5  | 0.9                                  | 1.3                                  | 4.7    |
| 1915-1919..                   | 5,904   | 7                | 18                                   | 1,313                                | 1,338  | .4  | 1.0                                  | 74.1                                 | 75.5   | 2.4  | .5                                   | 1.0                                  | 3.9    |
| 1920.....                     | 1,215   | .....            | 4                                    | 170                                  | 174    | .....   | 1.0                                  | 46.7                                 | 47.7   | .....  | .9                                   | .6                                   | 1.5    |
| 1921.....                     | 552   | 1                | 2                                    | 92                                   | 97     | .6  | 1.2                                  | 56.7                                 | 58.6   | 3.6  | .5                                   | .7                                   | 4.9    |
| 1922.....                     | 1,102   | .....            | .....                                | 78                                   | 78     | .....   | .....                                | 23.6                                 | 23.6   | .....  | .....                                | .6                                   | .6     |
| Docks and ore yards.          |   |                  |                                      |                                      |        |   |                                      |                                      |        |  |                                      |                                      |        |
| 1911-1914..                   | 1,293   | 3                | 11                                   | 139                                  | 153    | 0.8   | 2.8                                  | 35.8                                 | 39.4   | 4.6  | 2.8                                  | 0.8                                  | 8.2    |
| 1915-1919..                   | 1,383   | 6                | 12                                   | 175                                  | 193    | 1.4   | 2.9                                  | 42.2                                 | 46.5   | 8.7  | 4.1                                  | .5                                   | 13.3   |
| 1920.....                     | 379   | 1                | 2                                    | 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                | 3                                    | 7                                    | 13     | 3.7   | 3.7                                  | 8.6                                  | 16.0   | 22.2   | 7.6                                  | .3                                   | 30.1   |
| Erection of structural steel. |   |                  |                                      |                                      |        |   |                                      |                                      |        |  |                                      |                                      |        |
| 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.....                     | 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   |
| Coke ovens. <sup>3</sup>      |   |                  |                                      |                                      |        |   |                                      |                                      |        |  |                                      |                                      |        |
| 1912-1914..                   | 13,282  | 27               | 39                                   | 1,651                                | 1,717  | 0.7   | 1.0                                  | 41.4                                 | 43.1   | 4.1  | 1.5                                  | 0.6                                  | 6.2    |
| 1915-1919..                   | 28,901  | 66               | 44                                   | 2,095                                | 2,205  | .8  | .5                                   | 24.1                                 | 25.4   | 4.6  | .5                                   | .4                                   | 5.5    |
| 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    |
| Unclassified.                 |   |                  |                                      |                                      |        |   |                                      |                                      |        |  |                                      |                                      |        |
| 1915-1919..                   | 293,329   | 237              | 706                                  | 30,612                               | 31,555 | 0.3   | 0.8                                  | 34.8                                 | 35.9   | 1.6  | 1.3                                  | 0.5                                  | 3.4    |
| 1920.....                     | 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    |

<sup>2</sup> Less than 0.05.<sup>3</sup> These figures are for coke plants operated in connection with steel plants. For more complete statements see publications of Bureau of Mines.

The industry as a whole shows an increase over the previous year in full-year workers, i. e., from 237,094 to 335,909. This increase in numbers is accompanied by an increase in the frequency rate from 30.8 to 33 and of the severity rate from 2.5 to 2.7. These changes are so small as to be of little significance except as they reflect changes of similar character in the several departments.

The following departments having over 10,000 full-year workers show changes in the severity rate: Blast furnaces (3.9 to 5.1), open hearths (2.3 to 3.6), heavy rolling mills (1.2 to 2.5), sheet mills (1.6 to 2.5), tube mills (1.4 to 1.6), miscellaneous rolling mills (2.3 to 2.6), fabricating shops (2.1 to 3.3), wire drawing (2.7 to 2.1), and mechanical (2.5 to 2.6).

All but one of these departments show increases. The severity rate in the wire-drawing department dropped from 2.7 to 2.1. The rates in the other departments vary from that in the heavy rolling mills, in which the 1922 rate was slightly more than double the 1921 rate, to that in tube mills, in which there was a 14 per cent rise. Since the 1921 rates were not high, these percentages of increase are not seriously significant. They are enough, however, to suggest to safety men in the iron and steel industry a very strenuous effort to insure that the year's record shall not be repeated.

In Table 3, by a "smoothing" process, the essential trend of accident occurrence is disclosed.

TABLE 3.—TREND OF ACCIDENT RATES IN SPECIFIED DEPARTMENTS OF THE IRON AND STEEL INDUSTRY, BY 5-YEAR PERIODS.

| 5-year period.   | Industry. | Blast furnaces. | Bessemer. | Open hearth. | Foundries. | Heavy rolling mills. | Plate mills. | Sheet mills. |
|--|-----------|-----------------|-----------|--------------|------------|----------------------|--------------|--------------|
| <i>Accident frequency rates (per 1,000,000 hours' exposure).</i> |           |                 |           |              |            |                      |              |              |
| 1907 to 1911.....  | 69.2      | 76.1            | 101.5     | 84.2         | 60.1       | 61.0                 | 69.4         | 44.1         |
| 1908 to 1912.....  | 63.1      | 67.7            | 79.5      | 79.5         | 61.5       | 57.0                 | 60.8         | 47.9         |
| 1909 to 1913.....  | 62.1      | 62.4            | 92.3      | 78.6         | 65.1       | 51.7                 | 55.9         | 49.1         |
| 1910 to 1914.....  | 59.2      | 59.2            | 89.8      | 76.1         | 63.6       | 46.0                 | 49.9         | 51.0         |
| 1911 to 1915.....  | 53.3      | 50.3            | 65.0      | 67.6         | 59.3       | 39.4                 | 44.7         | 48.1         |
| 1912 to 1916.....  | 51.3      | 47.8            | 76.1      | 64.8         | 57.8       | 37.3                 | 41.5         | 47.4         |
| 1913 to 1917.....  | 48.2      | 44.1            | 68.3      | 58.4         | 60.4       | 32.1                 | 36.6         | 41.3         |
| 1914 to 1918.....  | 43.6      | 40.5            | 60.7      | 53.5         | 57.0       | 31.1                 | 39.8         | 35.8         |
| 1915 to 1919.....  | 41.2      | 38.6            | 57.7      | 50.5         | 55.6       | 32.0                 | 39.2         | 32.7         |
| 1916 to 1920.....  | 41.1      | 38.0            | 53.1      | 50.2         | 61.0       | 31.4                 | 38.4         | 33.7         |
| 1917 to 1921.....  | 39.5      | 36.3            | 47.0      | 44.8         | 63.1       | 29.9                 | 37.6         | 33.4         |
| 1918 to 1922.....  | 36.5      | 34.0            | 39.9      | 41.3         | 60.4       | 27.6                 | 36.7         | 35.2         |
| <i>Accident severity rates (per 1,000 hours' exposure).</i>      |           |                 |           |              |            |                      |              |              |
| 1907 to 1911.....  | 5.0       | 10.6            | 7.6       | 7.5          | 2.7        | 4.4                  | 5.1          | 3.1          |
| 1908 to 1912.....  | 4.3       | 8.8             | 7.4       | 6.6          | 3.1        | 4.2                  | 4.1          | 2.8          |
| 1909 to 1913.....  | 4.4       | 8.3             | 6.7       | 6.8          | 3.5        | 4.0                  | 3.8          | 3.0          |
| 1910 to 1914.....  | 4.1       | 7.0             | 6.4       | 6.6          | 3.6        | 3.8                  | 3.8          | 2.6          |
| 1911 to 1915.....  | 3.6       | 6.2             | 5.3       | 5.8          | 3.3        | 3.4                  | 3.1          | 2.2          |
| 1912 to 1916.....  | 3.7       | 5.8             | 6.1       | 5.5          | 3.1        | 3.5                  | 2.8          | 2.3          |
| 1913 to 1917.....  | 3.7       | 5.6             | 7.1       | 5.1          | 3.3        | 3.6                  | 2.6          | 2.1          |
| 1914 to 1918.....  | 3.5       | 5.4             | 7.3       | 5.8          | 3.2        | 3.4                  | 2.6          | 1.8          |
| 1915 to 1919.....  | 3.6       | 5.8             | 7.0       | 6.2          | 3.1        | 3.9                  | 2.5          | 1.6          |
| 1916 to 1920.....  | 3.5       | 5.7             | 6.3       | 6.3          | 3.2        | 3.5                  | 2.6          | 1.8          |
| 1917 to 1921.....  | 3.4       | 5.7             | 5.4       | 5.8          | 3.2        | 3.3                  | 2.5          | 1.7          |
| 1918 to 1922.....  | 3.1       | 5.5             | 4.2       | 5.3          | 2.7        | 2.9                  | 2.5          | 1.8          |

The rates in Table 3 are calculated for five-year periods beginning with the five years 1907 to 1911 and extending to 1922. The table discloses that in each of the departments included, except foundries, frequency of accidents has steadily decreased. The severity rates are more irregular but the trend is markedly downward.

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The foundries are disappointing. A study of particular foundry groups has demonstrated that marked improvement can be secured by the right kind of effort persistently applied. These plants when included with the others are not of sufficient weight to overcome the stationary condition of the majority. While severity is declining from 10.6 to 5.5 in blast furnaces it can not be regarded as satisfactory that foundries remain at the figure (2.7) at which they stood during the first 5-year interval.

The severity in foundries is not conspicuously high but frequency in recent years has been higher than in any other important department. This suggests that these plants have not utilized to the full extent those methods of promoting interest in safety among the men which have proved successful in the more hazardous departments.

It would seem also that some "engineering revision" ought to be possible which would bring about a lessened severity.

Table 4 adds the year 1922 to the "cause" table which has now been maintained for 10 years.

TABLE 4.—ACCIDENT FREQUENCY RATES (PER 1,000,000 HOURS' EXPOSURE) IN A PORTION OF THE IRON AND STEEL INDUSTRY, 1913 TO 1922, BY ACCIDENT CAUSES.

| Accident cause.                                     | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | Total. |
|---|------|------|------|------|------|------|------|------|------|------|--------|
| Machinery.....                                      | 7.3  | 5.0  | 4.9  | 5.4  | 4.5  | 4.0  | 3.3  | 3.4  | 1.8  | 2.2  | 4.2    |
| Working machines.....                               | 3.8  | 2.7  | 2.6  | 2.6  | 2.0  | 1.8  | 1.4  | 1.5  | .8   | 1.1  | 2.0    |
| Caught in.....                                      | 2.5  | 1.8  | 1.7  | 1.7  | 1.2  | 1.1  | .9   | 1.0  | .6   | .8   | 1.3    |
| Breakage.....                                       | .1   | .1   | .1   | .1   | .1   | .1   | .1   | .1   | .06  | .1   | .1     |
| Moving material in.....                             | 1.2  | .8   | .8   | .8   | .7   | .6   | .4   | .4   | .1   | .3   | .6     |
| Cranes.....   | 3.5  | 2.3  | 2.3  | 2.8  | 2.5  | 2.2  | 1.9  | 1.9  | 1.0  | 1.2  | 2.2    |
| Overhead.....                                       | 2.8  | 1.9  | 2.0  | 2.5  | 2.2  | 1.9  | 1.6  | 1.5  | .8   | 1.0  | 1.8    |
| Locomotive.....                                     | .3   | .2   | .2   | .2   | .2   | .2   | .2   | .2   | .2   | .1   | .2     |
| Other hoisting.....                                 | .4   | .2   | .1   | .1   | .1   | .1   | .1   | .2   | .7   | .1   | .2     |
| Vehicles.....                                       | 2.3  | 1.9  | 1.6  | 1.7  | 1.7  | 1.3  | 1.2  | .1   | .5   | .4   | 1.4    |
| Hot substances.....                                 | 5.4  | 3.6  | 3.7  | 4.5  | 3.6  | 3.0  | 2.8  | 2.5  | 1.2  | 1.1  | 3.2    |
| Electricity.....                                    | .5   | .4   | .2   | .4   | .3   | .3   | .2   | .3   | .1   | .1   | .3     |
| Hot metal.....                                      | 3.6  | 2.1  | 2.3  | 3.0  | 2.5  | 2.1  | 2.0  | 1.8  | .8   | .7   | 2.1    |
| Hot water, steam, etc.....                          | 1.3  | 1.1  | 1.2  | 1.1  | .8   | .6   | .6   | .4   | .2   | .3   | .8     |
| Falls of persons.....                               | 4.5  | 4.1  | 3.5  | 3.7  | 3.2  | 2.8  | 2.8  | 2.5  | 1.7  | 1.5  | 3.0    |
| From ladders.....                                   | .3   | .1   | .1   | .1   | .1   | .2   | .1   | .1   | .09  | .1   | .1     |
| From scaffolds.....                                 | .2   | .2   | .2   | .2   | .3   | .2   | .2   | .2   | .1   | .1   | .2     |
| Into openings.....                                  | .2   | .1   | .1   | .3   | .2   | .1   | .1   | .1   | .07  | (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  | 2.6    |
| Falling material, not otherwise specified.....      | 1.2  | .7   | .7   | .6   | .4   | .3   | .4   | .1   | .1   | .1   | .5     |
| Handling objects and tools.....                     | 26.7 | 19.4 | 20.6 | 21.5 | 15.7 | 12.8 | 11.7 | 10.4 | 6.5  | 5.8  | 15.1   |
| Objects dropped in handling.....                    | 11.2 | 7.3  | 7.6  | 8.4  | 6.1  | 5.5  | 5.0  | 4.4  | 2.6  | 2.6  | 6.1    |
| Caught between object handled and other object..... | 3.4  | 2.6  | 2.6  | 3.1  | 2.1  | 1.7  | 1.7  | 1.3  | .7   | .7   | 2.0    |
| Trucks and barrows.....                             | 1.9  | 1.0  | 1.4  | 1.4  | 1.2  | .9   | .7   | .6   | .5   | .4   | 1.0    |
| Lifting or pulling.....                             | 2.5  | 2.3  | 2.5  | 2.5  | 2.0  | 1.4  | 1.4  | 1.1  | .8   | .8   | 1.7    |
| Objects flying from tools.....                      | .2   | .2   | .1   | .1   | .1   | .1   | .1   | .1   | .07  | .1   | .1     |
| Slivers and edges.....                              | 3.8  | 3.4  | 3.8  | 3.1  | 2.2  | 1.5  | 1.3  | 1.5  | 1.1  | .6   | 2.2    |
| Using tools.....                                    | 3.7  | 2.6  | 2.6  | 2.9  | 2.0  | 1.7  | 1.4  | 1.4  | .8   | .7   | 2.0    |
| Miscellaneous.....                                  | 12.9 | 8.8  | 6.5  | 7.0  | 5.4  | 4.6  | 4.1  | 3.1  | 1.3  | 1.9  | 5.2    |
| Asphyxiating gas.....                               | .3   | .2   | .1   | .1   | .1   | .1   | .2   | .1   | .5   | (1)  | .1     |
| Flying objects not striking eye.....                | .8   | .6   | .6   | .5   | .4   | .5   | .3   | .3   | .2   | .1   | .4     |
| Flying objects striking eye.....                    | 2.9  | 2.1  | 1.7  | 1.9  | 1.6  | 1.6  | 1.3  | 1.1  | .5   | .4   | 1.5    |
| Heat cramps, etc.....                               | .9   | .8   | .4   | .4   | .1   | .2   | .1   | .1   | .06  | .1   | .3     |
| Other causes.....                                   | 8.0  | 5.1  | 3.7  | 4.1  | 3.2  | 2.2  | 2.2  | 1.5  | .6   | 1.3  | 2.8    |
| Total.....  | 60.3 | 43.5 | 41.5 | 44.4 | 34.5 | 28.8 | 26.3 | 22.0 | 13.3 | 13.0 | 32.5   |

<sup>1</sup> Less than 0.05.

The great significance of this table, and others like it, lies in the fact that it indicates clearly that the downward trend of accident occurrences is not confined to a few easily controlled causes but is distributed with remarkable uniformity to each of those enumerated.

The steadiness of this downward movement is indicated when the rates in the total column are compared with those of a median year such as 1917. It will be found that the average for the 10 years is strikingly close to the rates shown for 1917.

The year 1922 records a slight decline from 1921, being in this respect different from results in the industry as a whole.

It is pertinent also to call attention to the fact that this is a group of plants in which safety work of the most aggressive kind has been done for the years covered by the table. When the frequency rate of 13.0 for 1922 is compared with 33.0 for the industry at large the value of such effort will be appreciated.

Table 5 shows the course of accident frequency rates since 1913 in concerns which produce certain products.

TABLE 5.—ACCIDENT FREQUENCY RATES (PER 1,000,000 HOURS' EXPOSURE) FOR MILLS MAKING SPECIFIED PRODUCTS, BY YEARS ENDING WITH EACH ALTERNATE MONTH, DECEMBER, 1913, TO DECEMBER, 1921, AND ENDING WITH EACH MONTH IN 1922.

| Year ending with—    | Fabricated products. | Sheets. | Wire products. | Tubes. | Miscellaneous steel products. |          | Total. |
|----------------------|----------------------|---------|----------------|--------|-------------------------------|----------|--------|
|                      |                      |         |                |        | Group A.                      | Group B. |        |
| December, 1913.....  | 100.3                | 61.6    | 59.3           | 27.2   | 70.9                          | 41.3     | 60.3   |
| February, 1914.....  | 92.2                 | 58.9    | 54.7           | 24.0   | 69.3                          | 38.5     | 57.3   |
| April, 1914.....     | 88.2                 | 56.6    | 53.1           | 21.2   | 67.3                          | 35.5     | 54.7   |
| June, 1914.....      | 75.5                 | 53.7    | 51.0           | 19.1   | 62.8                          | 33.3     | 51.6   |
| August, 1914.....    | 66.7                 | 49.4    | 48.9           | 16.0   | 57.8                          | 31.0     | 47.9   |
| October, 1914.....   | 61.6                 | 47.2    | 46.8           | 13.9   | 53.5                          | 28.4     | 45.0   |
| December, 1914.....  | 59.0                 | 47.2    | 45.2           | 12.5   | 50.7                          | 27.6     | 43.5   |
| February, 1915.....  | 55.1                 | 46.6    | 45.4           | 11.1   | 45.4                          | 27.7     | 41.0   |
| April, 1915.....     | 53.3                 | 44.7    | 43.2           | 9.3    | 42.3                          | 26.4     | 39.1   |
| June, 1915.....      | 51.2                 | 41.8    | 44.3           | 8.7    | 42.7                          | 23.3     | 38.0   |
| August, 1915.....    | 50.9                 | 39.0    | 46.2           | 9.6    | 45.0                          | 20.1     | 38.1   |
| October, 1915.....   | 51.8                 | 38.0    | 51.4           | 10.5   | 48.5                          | 21.0     | 40.3   |
| December, 1915.....  | 53.5                 | 37.3    | 52.4           | 10.8   | 51.9                          | 23.0     | 41.5   |
| February, 1916.....  | 53.3                 | 37.0    | 52.8           | 11.3   | 57.5                          | 25.4     | 43.3   |
| April, 1916.....     | 52.7                 | 37.1    | 52.9           | 12.1   | 61.2                          | 25.4     | 44.2   |
| June, 1916.....      | 54.5                 | 36.5    | 52.2           | 12.2   | 62.7                          | 27.0     | 44.7   |
| August, 1916.....    | 54.7                 | 36.1    | 51.1           | 12.3   | 66.0                          | 28.5     | 45.4   |
| October, 1916.....   | 53.4                 | 35.2    | 48.9           | 12.2   | 67.6                          | 29.0     | 45.0   |
| December, 1916.....  | 52.1                 | 34.0    | 48.2           | 12.4   | 67.6                          | 28.2     | 44.4   |
| February, 1917.....  | 53.1                 | 33.6    | 46.4           | 12.1   | 66.5                          | 26.6     | 43.4   |
| April, 1917.....     | 54.3                 | 32.3    | 45.0           | 11.6   | 64.6                          | 25.8     | 42.2   |
| June, 1917.....      | 53.3                 | 32.3    | 42.6           | 11.5   | 62.2                          | 24.5     | 40.5   |
| August, 1917.....    | 52.7                 | 34.9    | 39.5           | 10.7   | 57.9                          | 22.5     | 38.3   |
| October, 1917.....   | 52.5                 | 34.2    | 36.0           | 10.4   | 54.2                          | 21.0     | 36.2   |
| December, 1917.....  | 51.3                 | 33.9    | 32.5           | 10.2   | 51.3                          | 20.5     | 34.5   |
| February, 1918.....  | 48.7                 | 33.1    | 30.7           | 10.0   | 48.6                          | 20.0     | 32.9   |
| April, 1918.....     | 46.9                 | 32.7    | 27.6           | 10.0   | 46.7                          | 21.6     | 31.9   |
| June, 1918.....      | 45.7                 | 31.3    | 24.6           | 9.9    | 45.2                          | 24.3     | 31.1   |
| August, 1918.....    | 42.6                 | 27.5    | 22.1           | 9.9    | 44.0                          | 28.3     | 30.2   |
| October, 1918.....   | 40.0                 | 26.5    | 19.9           | 9.6    | 42.6                          | 29.9     | 29.2   |
| December, 1918.....  | 38.2                 | 25.9    | 18.8           | 9.1    | 42.0                          | 31.4     | 28.8   |
| February, 1919.....  | 37.3                 | 26.1    | 17.4           | 9.2    | 41.8                          | 31.5     | 28.6   |
| April, 1919.....     | 35.8                 | 25.6    | 16.2           | 9.1    | 41.5                          | 30.7     | 28.1   |
| June, 1919.....      | 33.6                 | 24.4    | 15.4           | 8.7    | 40.7                          | 28.4     | 27.1   |
| August, 1919.....    | 32.3                 | 24.7    | 14.2           | 8.5    | 39.2                          | 25.5     | 26.2   |
| October, 1919.....   | 33.3                 | 25.1    | 13.1           | 8.7    | 38.7                          | 24.5     | 25.9   |
| December, 1919.....  | 32.8                 | 25.8    | 12.5           | 9.1    | 39.7                          | 23.0     | 26.1   |
| February, 1920.....  | 33.1                 | 25.4    | 12.5           | 9.1    | 39.3                          | 22.5     | 25.9   |
| April, 1920.....     | 33.7                 | 24.9    | 12.5           | 9.0    | 38.7                          | 21.1     | 25.3   |
| June, 1920.....      | 35.3                 | 25.0    | 12.2           | 9.2    | 38.0                          | 21.2     | 25.0   |
| August, 1920.....    | 35.6                 | 24.1    | 12.4           | 9.2    | 37.0                          | 20.3     | 24.4   |
| October, 1920.....   | 35.1                 | 23.6    | 12.6           | 9.1    | 37.0                          | 19.5     | 24.0   |
| December, 1920.....  | 35.3                 | 22.7    | 12.0           | 8.9    | 35.3                          | 18.6     | 22.9   |
| February, 1921.....  | 35.8                 | 22.0    | 10.8           | 8.3    | 33.3                          | 17.4     | 21.7   |
| April, 1921.....     | 34.5                 | 21.5    | 9.9            | 7.6    | 30.4                          | 16.8     | 20.2   |
| June, 1921.....      | 32.4                 | 20.2    | 9.3            | 7.3    | 27.6                          | 15.5     | 18.7   |
| August, 1921.....    | 32.0                 | 20.3    | 8.4            | 7.0    | 24.2                          | 14.2     | 17.2   |
| October, 1921.....   | 30.8                 | 19.1    | 7.9            | 6.5    | 19.8                          | 13.3     | 15.2   |
| December, 1921.....  | 28.4                 | 17.5    | 7.5            | 6.1    | 15.8                          | 12.1     | 13.2   |
| January, 1922.....   | 27.6                 | 17.0    | 7.6            | 6.1    | 13.4                          | 11.5     | 12.2   |
| February, 1922.....  | 26.5                 | 16.2    | 7.8            | 6.2    | 12.3                          | 11.4     | 11.8   |
| March, 1922.....     | 25.3                 | 16.2    | 7.8            | 6.5    | 11.7                          | 11.0     | 11.6   |
| April, 1922.....     | 25.6                 | 16.1    | 7.8            | 6.5    | 12.0                          | 10.5     | 11.6   |
| May, 1922.....       | 27.7                 | 16.4    | 7.5            | 6.4    | 12.4                          | 10.9     | 11.8   |
| June, 1922.....      | 29.7                 | 16.8    | 7.9            | 6.4    | 13.1                          | 10.9     | 12.3   |
| July, 1922.....      | 30.4                 | 17.1    | 8.1            | 6.5    | 13.7                          | 11.1     | 12.6   |
| August, 1922.....    | 31.5                 | 16.8    | 8.2            | 6.6    | 14.1                          | 10.8     | 12.7   |
| September, 1922..... | 32.2                 | 16.8    | 8.2            | 6.6    | 14.3                          | 10.9     | 12.8   |
| October, 1922.....   | 32.9                 | 16.7    | 8.0            | 6.7    | 14.3                          | 10.5     | 12.8   |
| November, 1922.....  | 33.0                 | 16.8    | 7.9            | 6.8    | 14.2                          | 10.4     | 12.7   |
| December, 1922.....  | 33.8                 | 16.9    | 7.9            | 7.1    | 14.5                          | 10.8     | 13.0   |

The present table simply extends the tables hitherto published, so as to cover the years ending in each month of 1922.

It will be noted that except for wire products the years ending in the later months of 1922 show a tendency to rise. This reflects the progressive readjustment incident to revived industrial activity. Since these plants are the same as those covered by Table 4, in which intensive safety work has been going on for a long time, it again becomes evident that even the best organized plants are sure to have some rise in rates when it is necessary to introduce the inexperienced man. The table shows two such periods of readjustment. The earlier one corresponds in a general way to the period of war activity and the later one to the year 1922. It is a hopeful sign that the trend observed in the first of these periods was very quickly controlled and the normal decline of rates resumed.

The percentages of decline over this 10-year period are significant. They are as follows: Fabricated products, 66; sheets, 73; wire products, 87; tubes, 74; and miscellaneous steel products—Group A, 80; Group B, 74.

#### Conclusion.

THE changes which mark the year 1922 are none of them of a striking or spectacular character. It may be affirmed that except in the case of individual concerns the day of striking accident reduction is over. It is now the duty and opportunity of safety engineers to emphasize constantly that provisions for safety are just as much a part of the business as are provisions for production or accounting.

The further progress of the movement will depend on the thoroughness with which this is done.

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### Coal-Mine Fatalities in the United States in 1922.

THE report of the United States Bureau of Mines on coal-mine fatalities in the United States during the calendar year 1922 (Technical Paper 339) states that the principal features of the year's record were the heavy loss of life from gas and coal-dust explosions and the five-month strike of the miners which completely stopped the mining of anthracite coal and reduced the output of bituminous coal to about half the usual amount.

There were 1,971 fatal accidents in 1922 as compared with 1,987 in 1921, the revised record for that year. Although this was a reduction of 16 from the fatalities for the preceding year it does not show a reduction in the fatality rate in relation to the tonnage mined. In 1922, 233,576 tons were mined for each fatal accident and in 1921, 254,854 tons. The fatality rate based upon the total output of coal was 4.28 per million tons in 1922 and 3.92 per million tons in 1921. The rates for bituminous mines were 4.10 and 3.46 for 1922 and 1921, respectively, and for anthracite mines 5.66 and 6.05.

Preliminary estimates place the total number of underground and surface workers in 1922 at 848,932, of whom 159,499 were employed in anthracite mines. This was an increase of 25,679 over the total number employed in 1921. The total production of both bituminous



and anthracite amounted to approximately 460,379,000 tons, as against 506,395,401 tons in 1921.

The following table shows, by causes, the fatalities at coal mines during the calendar years 1921 and 1922:

FATALITIES AT COAL MINES, BY CAUSES, YEARS ENDED DECEMBER 31, 1921 AND 1922.

| Cause.                         | Number killed. |       | Increase (+) or decrease (-) in 1922 as compared with 1921. |           |
|--------------------------------|----------------|-------|---|-----------|
|                                | 1921           | 1922  | Number.   | Per cent. |
| Underground:                   |                |       |   |           |
| Falls of roof or face.....     | 1,024          | 900   | -124  | -12.11    |
| Mine cars and locomotives..... | 341            | 340   | -1  | -.29      |
| Gas and dust explosions.....   | 116            | 311   | +195  | +168.10   |
| Explosives.....                | 152            | 91    | -61   | -40.13    |
| Electricity.....               | 80             | 74    | -6  | -7.50     |
| Mine fires.....                | 9              | 9     | -9  | -100.00   |
| Miscellaneous underground..... | 109            | 76    | -33   | -30.28    |
| Total.....                     | 1,831          | 1,792 | -39   | -2.13     |
| Shaft.....                     | 36             | 41    | +5  | +13.89    |
| Surface:                       |                |       |   |           |
| Haulage.....                   | 45             | 54    | +9  | +20.00    |
| Machinery.....                 | 17             | 23    | +6  | +35.29    |
| Miscellaneous.....             | 58             | 61    | +3  | +5.17     |
| Total.....                     | 120            | 138   | +18   | +15.00    |
| Grand total.....               | 1,987          | 1,971 | -16   | -.81      |

The following table shows the number of workers, average days active, number of men killed, fatality rate per one thousand 300-day workers, and production in coal mines for the years 1907 to 1922:

COAL-MINE FATALITIES AND PRODUCTION, 1907 TO 1922.

| Year.                   | Men employed.  |                                | Average days active. | Men killed. |                                 | Production per death (short tons). | Average production per man. |               |
|-------------------------|----------------|--------------------------------|----------------------|-------------|---------------------------------|------------------------------------|-----------------------------|---------------|
|                         | Actual number. | Equivalent in 300-day workers. |                      | Number.     | Rate per 1,000 300-day workers. |                                    | Tons per year.              | Tons per day. |
| 1907 <sup>1</sup> ..... | 674,613        | 519,452                        | 231                  | 3,242       | 6.24                            | 147,407                            | 708                         | 3.07          |
| 1908 <sup>1</sup> ..... | 678,873        | 441,267                        | 195                  | 2,445       | 5.54                            | 167,407                            | 693                         | 3.09          |
| 1909 <sup>1</sup> ..... | 666,535        | .....                          | .....                | 2,642       | .....                           | 174,416                            | 691                         | .....         |
| 1910.....               | 725,030        | 531,689                        | 220                  | 2,821       | 5.31                            | 177,808                            | 692                         | 3.14          |
| 1911.....               | 728,348        | 534,122                        | 220                  | 2,656       | 4.97                            | 186,887                            | 682                         | 3.10          |
| 1912.....               | 722,662        | 541,997                        | 225                  | 2,419       | 4.46                            | 220,945                            | 740                         | 3.29          |
| 1913.....               | 747,644        | 593,131                        | 238                  | 2,785       | 4.70                            | 204,685                            | 762                         | 3.20          |
| 1914.....               | 763,185        | 526,598                        | 207                  | 2,454       | 4.66                            | 209,261                            | 673                         | 3.25          |
| 1915.....               | 734,008        | 511,598                        | 209                  | 2,269       | 4.44                            | 234,297                            | 724                         | 3.46          |
| 1916.....               | 720,971        | 565,766                        | 235                  | 2,226       | 3.93                            | 265,094                            | 818                         | 3.48          |
| 1917.....               | 757,317        | 634,666                        | 251                  | 2,696       | 4.25                            | 241,618                            | 860                         | 3.42          |
| 1918.....               | 762,426        | 654,973                        | 258                  | 2,580       | 3.94                            | 262,873                            | 890                         | 3.45          |
| 1919.....               | 776,569        | 542,217                        | 209                  | 2,317       | 4.27                            | 239,082                            | 713                         | 3.41          |
| 1920.....               | 784,621        | 601,283                        | 230                  | 2,271       | 3.78                            | 289,857                            | 839                         | 3.65          |
| 1921.....               | 823,253        | 474,529                        | 173                  | 1,987       | 4.19                            | 254,854                            | 615                         | 3.56          |
| 1922.....               | 848,932        | .....                          | .....                | 1,971       | .....                           | 233,576                            | .....                       | .....         |

<sup>1</sup> Figures are only for States under inspection service. Figures omitted for 1909 (census year) because not comparable.

<sup>2</sup> Number of employees based on estimates of State mine inspectors.

The report also gives detailed information in regard to the distribution of accidents by States from each specified cause, the amount of coal produced, and the percentage of coal mined by various methods, by States and years.

[917]

### Mine Fatalities Due to Use of Explosives.

**D**URING the past 11 years mining accidents due to the use of explosives have caused 2.6 to 5.9 per cent of all fatalities at bituminous coal mines, 4.1 to 8.9 per cent at anthracite mines, 9.3 to 14.2 per cent at metal mines, and 13.6 to 26.6 per cent at quarries, according to the United States Bureau of Mines.<sup>1</sup>

No data are available regarding nonfatal accidents at coal mines, but the record shows that only from 1.1 to 2 per cent of all injuries at metal mines and from 1.7 to 6.3 per cent of those at quarries have been due to the use of explosives. The number of fatalities due to explosives in the mineral industry in 1921 was 178. Of these 46 were due to premature shots, 29 to suffocation, 14 to returning too soon after the shot, 13 to delayed blasts, 13 to charging, and the remainder to miscellaneous causes.

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### Relation Between Labor Turnover and Industrial Accidents.

**T**HE relation between labor turnover and industrial accidents has been made the subject of a study by Harry D. Kitson and Claude Campbell, of the department of psychology of Indiana University.<sup>2</sup> The study is based on a total of 28,939 industrial accidents. An analysis of these accidents shows a ratio of approximately one accident to one new man hired. This is four times as great as the incidence of accidents among the total number of workers on the pay rolls examined and in itself constitutes striking evidence that new employees are a powerful factor in raising the number of accidents. The investigation further shows that the number of accidents from month to month varies directly with the number of new employees. It is stated that while it is true that the fluctuations in accidents follow to a slight degree the fluctuation in the average working force, they correspond far more closely to the fluctuations in the number of new employees. This supports the conclusion that the influence of new employees in producing accidents is greater than the influence of mere increasing industrial activity as measured by the total working force. The authors offer the following practical steps for the prevention of accidents:

(1) In order to reduce the number of accidents, reduce the turnover. If the number of new employees could be reduced to zero, the number of accidents would probably be reduced by 75 per cent.

(2) When the costs of turnover are being computed from such items as spoiled work, damaged machinery, etc., the amounts paid in settlement for accidents should also be included. (3) An increased amount of time spent in instructing new employees might aid materially in reducing the number of industrial accidents.

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<sup>1</sup> U. S. Bureau of Mines. Technical Paper 340: Production of Explosives in the United States during the calendar year 1922.

<sup>2</sup> Journal of Industrial Hygiene, Boston, July, 1923, pp. 92-96.

## Analysis of Causes of 350,000 Industrial Accidents.

**A**N ANALYSIS of the causes of 350,000 industrial accidents has been made by the National Bureau of Casualty and Surety Underwriters for the National Council on Compensation Insurance.<sup>1</sup> The purpose of the analysis was to provide a basis for a more accurate industrial compensation rating schedule. It was found that an unexpectedly large per cent of the total compensation cost was due to unguarded points of operation of machines. The following table shows the per cent of the total cost of industrial accidents due to machinery and to points of operation in specified industries.

PER CENT OF TOTAL COST OF INDUSTRIAL ACCIDENTS DUE TO MACHINERY AND POINT OF OPERATION IN SPECIFIED INDUSTRIES.

| Industry.                    | Per cent of total cost of industrial accidents due to— |                                    | Industry.                     | Per cent of total cost of industrial accidents due to— |                                    |
|------------------------------|--|------------------------------------|-------------------------------|--|------------------------------------|
|                              | All machine acci- dents.                               | Point- of-opera- tion ac- cidents. |                               | All machine acci- dents.                               | Point- of-opera- tion ac- cidents. |
| Stone.....                   | 8.7  | 6.7                                | Rubber and compounds.....     | 47.0   | 35.6                               |
| Clay.....                    | 23.2   | 12.7                               | Chemical industries.....      | 20.1   | 14.5                               |
| Glass.....                   | 10.6   | 6.8                                | Paper and paper products..... | 40.5   | 34.0                               |
| Rolling and steel mills..... | 20.4   | 14.1                               | Printing and publishing.....  | 50.5   | 40.9                               |
| Metal products.....          | 38.8   | 29.4                               | Textiles.....                 | 43.7   | 22.9                               |
| Machinery manufacture.....   | 31.4   | 28.3                               | Clothing.....                 | 31.5   | 20.5                               |
| Vehicle manufacture.....     | 31.3   | 22.9                               | Laundry.....                  | 47.2   | 33.6                               |
| Lumber and wood.....         | 52.9   | 42.6                               | Food.....                     | 27.2   | 19.4                               |
| Leather.....                 | 42.7   | 36.9                               | Miscellaneous.....            | 22.7   | 14.3                               |

## Industrial Accidents in the Rubber Industry, Second Half of 1922.

**T**HE National Safety News for August, 1923, contains the industrial accident record for the second half of the year 1922 of certain firms in the rubber industry reporting their experience to the National Safety Council.<sup>2</sup> The number of firms reporting their experience was 15, having 62,236 1,000 hours exposure. The number of accidents occurring in these establishments during the 6-month period was 2,314, of which 2 resulted in death, 1 in permanent total disability, 34 in permanent partial disability, 601 in temporary disability over 2 weeks, 361 in temporary disability over 1 to 2 weeks, and 1,315 in temporary disability of 1 week and under. The frequency rate for these establishments was 37.18 per 1,000,000 hours worked, while the severity rate per 1,000 hours worked was 1.07. The accident rates for the metal and woodworking industries were given in the August, 1923, issue of the MONTHLY LABOR REVIEW.

<sup>1</sup> National Bureau of Casualty and Surety Underwriters. Causes of 350,000 industrial accidents analyzed by insurance companies. Mimeographed report, 1923.

<sup>2</sup> National Safety News, August, 1923, p. 39.

### Mine Accidents in Alaska, 1922.

THE following table showing the number of accidents in and about mines in Alaska for the calendar year 1922 was compiled from the 1922 annual report of the mine inspector of the Territory.

NUMBER OF ACCIDENTS IN MINES AND MILLING PLANTS IN ALASKA DURING THE CALENDAR YEAR 1922.

| Industry.                    | Number of accidents resulting in— |                                    |                       |                    | Total. |
|------------------------------|-----------------------------------|------------------------------------|-----------------------|--------------------|--------|
|                              | Death.                            | Permanent disability. <sup>1</sup> | Temporary disability. |                    |        |
|                              |                                   |                                    | Over 2 weeks.         | 2 weeks and under. |        |
| Coal.....                    |                                   |                                    | 6                     | 14                 | 20     |
| Gold.....                    | 2                                 | 4                                  | 31                    | 48                 | 85     |
| Copper.....                  | 2                                 | 1                                  | 31                    | 78                 | 112    |
| Milling plants (gold).....   |                                   |                                    | 4                     | 17                 | 21     |
| Milling plants (copper)..... | 1                                 | 1                                  | 4                     | 34                 | 40     |
| Total.....                   | 5                                 | 6                                  | 76                    | 191                | 278    |

<sup>1</sup> Permanent partial disability accidents only; there were no accidents resulting in permanent total disability in 1922.

### Mine Accidents in Arizona, 1922.

DURING the year ending November 30, 1922, there were reported by the mines of Arizona 30 fatal and 376 nonfatal accidents, according to the eleventh annual report of the State mine inspector.

### Coal-Mine Accidents in Colorado, 1922.

ACCORDING to the tenth annual report of the State inspector of coal mines there were 74 fatalities in coal mines in Colorado during the calendar year 1922, or 5.5 fatalities per 1,000 persons employed, as compared with 52 deaths, or 3.6 per 1,000 persons employed, in 1921. The number of nonfatal accidents was 1,724, of which 4 resulted in permanent total disability, 15 in permanent partial disability, 871 in temporary disability of over two weeks, and 834 in temporary disability of two weeks and under. This was an increase of 204, or 14 per cent, over the number of nonfatal accidents in 1921. The number of tons of coal produced per fatal accident in 1922 was 135,184.

### Coal-Mine Accidents in Pennsylvania, 1916 to 1920.

THE Insurance Department of Pennsylvania in cooperation with the Pennsylvania Compensation Rating and Inspection Bureau has compiled and published a comprehensive statistical analysis of coal-mine accidents in Pennsylvania during the five-year period 1916 to 1920, inclusive. The report states that coal mining in Pennsylvania is responsible year by year for 1,000 fatal accidents and for at least 25,000 temporary disabilities of more than 10 days' duration. The direct wage loss on account of industrial injuries in the coal mines of Pennsylvania is in the neighborhood of twenty million dollars annually.

[1920]

The report is divided into three parts: (1) Anthracite fatalities, (2) bituminous fatalities, and (3) compensation insurance experience. The third part comprises the premium and loss experience of insurance carriers, an analysis of all fatal and permanent injuries in insured mines during the period covered, and a study of temporary compensable disabilities in insured mines during 1920. The special features of the fatality sections are the detailed analyses of the causes of accidents and the correlation of accidents from each cause with the occupation of the injured. In addition to the causes of accidents the study contains fatality rates expressed in terms of production and man-hours; an analysis of the mining catastrophes during 1901 to 1920; insurance premiums and incurred compensation costs; accident rates for each type of injury in insured mines; average cost of fatalities; remarriage rates of widows; and the ratio of weekly compensation to weekly wages.

The following table shows the coal production, fatalities, and fatality rates, 1916 to 1920, in Pennsylvania:

COAL PRODUCTION, FATALITIES, AND FATALITY RATES, 1916 TO 1920, IN PENNSYLVANIA.

| Industry.                     | Production<br>(net tons). | Number of 2,000-hour workers. |         |         | Production per man per annum, (net tons). |
|-------------------------------|---------------------------|-------------------------------|---------|---------|---|
|                               |                           | Outside.                      | Inside. | Total.  |   |
| Anthracite <sup>1</sup> ..... | 437,457,000               | 233,603                       | 592,694 | 826,297 | 529                                       |
| Bituminous <sup>2</sup> ..... | 831,877,060               | 150,021                       | 714,857 | 864,878 | 962                                       |

| Industry.                     | Total number of fatalities. | Ordinary fatalities. <sup>3</sup> |          |        | Ordinary fatality rate— |          |        |                               |          |        |
|-------------------------------|-----------------------------|-----------------------------------|----------|--------|-------------------------|----------|--------|-------------------------------|----------|--------|
|                               |                             | Out-side.                         | In-side. | Total. | Per 1,000,000 tons.     |          |        | Per 1,000 2,000-hour workers. |          |        |
|                               |                             |                                   |          |        | Out-side.               | In-side. | Total. | Out-side.                     | In-side. | Total. |
| Anthracite <sup>1</sup> ..... | 2,760                       | 358                               | 2,283    | 2,641  | 0.82                    | 5.22     | 6.04   | 1.53                          | 3.85     | 3.20   |
| Bituminous <sup>2</sup> ..... | 2,340                       | 187                               | 2,075    | 2,262  | .23                     | 2.49     | 2.72   | 1.25                          | 2.90     | 2.62   |

<sup>1</sup> Fatalities in stripping and culm recovery excluded.

<sup>3</sup> Catastrophes not included.

<sup>2</sup> Coke excluded.

The following table shows the ordinary coal-mine fatalities, 1916-1920, in Pennsylvania by general cause of accident:

ORDINARY COAL-MINE FATALITIES, 1916 TO 1920, IN PENNSYLVANIA, BY GENERAL CAUSE OF ACCIDENT.

| Cause of accident.                 | Anthracite.           |                         | Bituminous.           |                         | Cause of accident.                        | Anthracite.           |                         | Bituminous.           |                         |
|------------------------------------|-----------------------|-------------------------|-----------------------|-------------------------|---|-----------------------|-------------------------|-----------------------|-------------------------|
|                                    | Number of fatalities. | Per cent of fatalities. | Number of fatalities. | Per cent of fatalities. |   | Number of fatalities. | Per cent of fatalities. | Number of fatalities. | Per cent of fatalities. |
| Machinery.....                     | 118                   | 4.5                     | 72                    | 3.2                     | Falls of roof and coal.                   | 1,256                 | 47.6                    | 1,231                 | 54.4                    |
| Shafts and hoisting apparatus..... | 62                    | 2.3                     | 50                    | 2.2                     | Falling objects, not otherwise classified | 18                    | .7                      | 12                    | .5                      |
| Railroad cars and engines.....     | 51                    | 1.9                     | 35                    | 1.6                     | Falls of persons.....                     | 48                    | 1.9                     | 18                    | .8                      |
| Mine haulage.....                  | 490                   | 18.5                    | 620                   | 27.4                    | Handling of materials.....                | 27                    | 1.0                     | 9                     | .4                      |
| Electricity.....                   | 47                    | 1.8                     | 88                    | 3.9                     | All other.....                            | 15                    | .6                      | 23                    | 1.0                     |
| Explosives.....                    | 289                   | 10.9                    | 70                    | 3.1                     |   |                       |                         |                       |                         |
| Gas, dust, and fires..             | 220                   | 8.3                     | 34                    | 1.5                     | All causes.....                           | 2,641                 | 100.0                   | 2,262                 | 100.0                   |



The following table shows the insurance premiums, compensation losses incurred, and administrative expenses, 1916 to 1920, in the coal-mining industry in Pennsylvania:

PREMIUMS, LOSSES, AND EXPENSES, 1916-1920, IN COAL MINING IN PENNSYLVANIA.

| Insurer.                                | Earned premiums. | Incurred losses. | Incurred expenses. | Loss ratio. | Expense ratio. |
|---|------------------|------------------|--------------------|-------------|----------------|
| All insurers.....                       | \$22,653,560     | \$11,159,989     | \$6,563,863        | 49.3        | 29.0           |
| Participating.....                      | 7,742,880        | 3,662,188        | 1,611,338          | 47.3        | 20.8           |
| Nonparticipating.....                   | 14,910,680       | 7,497,801        | 4,952,525          | 50.3        | 33.2           |
| American Mine Owners (P).....           | 294,202          | 165,788          | 86,790             | 56.4        | 29.5           |
| Associated Companies.....               | 13,144,977       | 6,736,446        | 4,356,802          | 51.2        | 33.1           |
| Eureka Casualty.....                    | 1,198,941        | 559,957          | 393,949            | 46.7        | 32.9           |
| Pennsylvania Bituminous Mutual (P)..... | 2,379,153        | 986,126          | 706,243            | 41.5        | 29.7           |
| State fund (P).....                     | 5,069,525        | 2,510,274        | 818,305            | 49.5        | 16.1           |
| Travelers Insurance Co.....             | 492,692          | 164,398          | 183,774            | 33.3        | 37.3           |

### Austrian Legislation for Prevention of Industrial Poisoning.

A SERIES of bills designed to protect the health of workers in industries in which poisonous metals, such as lead and zinc, are used were passed by the Austrian National Assembly and have recently been put into effect by order of the Ministry for Social Administration.<sup>1</sup>

The orders provide that in every working place handling substances containing poisonous metals, a notice must be posted of the risks and of the precautionary measures required of the workmen, including the necessity of change of clothing when leaving the factory, of fat in the food, and of early medical examination when certain symptoms occur. They also provide for compulsory examination of workers at regular intervals, ventilation of workrooms and provision of apparatus to remove or condense various gases and dust. Wherever possible, the walls and floors are to be washed daily. The working clothes must be cleaned at least once a week, and washing-up and bathing facilities must be provided.

The moving of raw materials and loading of furnaces and other machinery must be so managed that no dust is produced. Where lead is melted or bronze or lead dyes are used, at least 15 cubic meters of air space and 3 square meters of floor space must be allotted each workman; in other cases, 12 cubic meters and 2.5 square meters are allowed. First-aid cabinets must be provided in every factory, and the foremen must be trained to give first-aid treatment.

In printing industries and dye factories children under 17 years of age may not be employed in dangerous occupations or where poisonous dust is present; women must have at least a 10-minute rest period after each 2½ hours' work at a machine. Either two days without work or a change of occupation must be provided after one week's work in the dye department. Eating at work places is forbidden, and a special, well-ventilated place must be provided where lunches may be eaten.

Workers suffering from lead or other poisoning contracted in course of their work through the fault of the employer must be paid their regular wages as long as they are incapacitated for work and while

<sup>1</sup> Journal of the American Medical Association, Chicago, July 21, 1923, pp. 229, 230.

they are receiving treatment. If the poisoning is a result of the carelessness of the workman, he receives only sick pay. Free treatment is insured through the compulsory sickness insurance (*Krankenkasse*), one-third of the premiums of which are paid by the employer and two-thirds by the workers.

### Industrial Poisons and Diseases in British Factories.

THE annual report of the chief inspector of factories and workshops in Great Britain for the year 1922 contains (pp. 63-81) the report of Dr. T. M. Legge, senior medical inspector of factories, showing the causes and extent of industrial diseases among British factory workers.

A special inquiry into the grinding of metals and cleaning of metal castings, involving the physical examination of 1,153 workers employed in these occupations, was concluded during the year. It was found that associated with these processes were three primary respiratory diseases—pulmonary fibrosis, bronchial catarrh, and bronchitis. Pulmonary fibrosis was found to occur with the greatest frequency among hand grinders on wet sandstone. It was frequently followed by tuberculosis or developed into a disabling form of chronic interstitial pneumonia. Bronchial catarrh, caused by the inhalation of irritating dusts and having a tendency to develop into chronic bronchitis, was found in its worst form among cleaners of castings, while bronchitis associated with some degree of fibrosis was found to be particularly common among sandstone grinders.

The following table shows the number of cases of disease resulting from the use of some of the more important industrial poisons. The high mortality rate and the large number of cases of lead poisoning as compared with the number of cases of poisoning in other industries will be noted.

NUMBER OF CASES OF PRINCIPAL INDUSTRIAL DISEASES AND OF DEATHS THEREFROM REPORTED IN GREAT BRITAIN, 1903 TO 1922.

| Disease.                    | Average,<br>1903-<br>1905 | Average,<br>1906-<br>1908 | Average,<br>1909-<br>1911 | Average,<br>1912-<br>1914 | Average,<br>1915-<br>1917 | Average,<br>1918-<br>1920 | 1921  | 1922  |
|-----------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|-------|-------|
| Lead poisoning:             |                           |                           |                           |                           |                           |                           |       |       |
| Cases.....                  | 601                       | 619                       | 576                       | 522                       | 349                       | 198                       | 230   | 247   |
| Deaths.....                 | 23                        | 30                        | 35                        | 33                        | 21                        | 20                        | 23    | 26    |
| Phosphorus poisoning:       |                           |                           |                           |                           |                           |                           |       |       |
| Cases.....                  | 1                         | 1                         | 1                         | .....                     | 3                         | 1                         | ..... | ..... |
| Deaths.....                 | 1                         | .....                     | .....                     | .....                     | .....                     | .....                     | ..... | ..... |
| Arsenic poisoning:          |                           |                           |                           |                           |                           |                           |       |       |
| Cases.....                  | 4                         | 12                        | 7                         | 4                         | 11                        | 3                         | 1     | ..... |
| Deaths.....                 | .....                     | 1                         | .....                     | .....                     | 2                         | .....                     | ..... | ..... |
| Mercurial poisoning:        |                           |                           |                           |                           |                           |                           |       |       |
| Cases.....                  | 6                         | 7                         | 10                        | 14                        | 14                        | 7                         | ..... | 6     |
| Deaths.....                 | .....                     | .....                     | .....                     | .....                     | .....                     | .....                     | ..... | 1     |
| Toxic jaundice:             |                           |                           |                           |                           |                           |                           |       |       |
| Cases.....                  | .....                     | .....                     | .....                     | .....                     | 132                       | 14                        | 1     | 3     |
| Deaths.....                 | .....                     | .....                     | .....                     | .....                     | 34                        | 5                         | 1     | ..... |
| Epitheliomatous ulceration: |                           |                           |                           |                           |                           |                           |       |       |
| Cases.....                  | .....                     | .....                     | .....                     | .....                     | .....                     | 45                        | 32    | 32    |
| Deaths.....                 | .....                     | .....                     | .....                     | .....                     | .....                     | 1                         | 2     | 3     |
| Chrome ulceration:          |                           |                           |                           |                           |                           |                           |       |       |
| Cases.....                  | .....                     | .....                     | .....                     | .....                     | .....                     | 126                       | 29    | 42    |
| Deaths.....                 | .....                     | .....                     | .....                     | .....                     | .....                     | .....                     | ..... | ..... |
| Anthrax:                    |                           |                           |                           |                           |                           |                           |       |       |
| Cases.....                  | 52                        | 57                        | 57                        | 57                        | 83                        | 59                        | 25    | 45    |
| Deaths.....                 | 13                        | 13                        | 11                        | 7                         | 12                        | 9                         | 6     | 5     |

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A point of interest in connection with the incidence of lead poisoning is the much higher figure for the symptom of paralysis in men than in women. Of 3,270 cases (the total for nine years) among men, 400, or 12.2 per cent, had definite paralysis, while there were only 19 cases of paralysis, or 4.7 per cent, among 399 women who were suffering from lead poisoning. This is accounted for by the much longer duration of employment of the men. The figures are said, also, to support the view that the use made of the particular group of muscles determines to a certain extent the direction the paralysis takes, because the prevalence of wrist drop is much greater in the right hand than in the left. Among the different industries using lead the pottery industry shows the highest death rate from this cause. There was an increase during 1922 in the number of cases of lead poisoning among workers engaged in plumbing and soldering. This was due particularly to the volatilization of lead in the use of an oxy-acetylene flame in cutting up scrapped battleships. This work is carried on more or less continuously in about 25 seaports, and will probably continue for years. The only remedy for the situation is said to lie in periodic medical examinations and removal of men from the work as soon as they show signs of lead absorption, as the use of breathing apparatus has not proved successful.

Of the six cases of mercurial poisoning, four were the result of the accidental mixing of mercury with lead borings which were being melted; while the two other cases, one of which was fatal, occurred in the manufacture of thermometers.

The number of cases of anthrax and the mortality rate therefrom have been much reduced in recent years. The disinfection of East Indian goat hair in the Government wool disinfecting station at Liverpool has contributed to the reduction in the number of cases of infection while the serum treatment of cases of the disease has reduced the fatality rate about one-half since 1906.

Forty-two cases of chrome ulceration were reported, 10 of which occurred in the manufacture and 32 in the use of bichromate of potassium or sodium. The average length of employment of cases occurring in the manufacturing process was 4 years and in those involving the use of this substance, 11 years.

The reporting of cancer of the skin produced by specific forms of irritation has been required since 1920. In the three years since then, 109 cases with 6 deaths have been reported which were caused by the use of pitch, tar, and paraffin.

Cases of dermatitis were reported among persons working on celluloid substitutes containing formaldehyde; among workers using shellac varnish; in sugar refineries; from the use of "accelerene," an accelerator used in the vulcanization of rubber; from lubricating oil; and from sesquisulphide of phosphorus.

The following table shows the number of cases and of deaths from gases and fumes for the years 1913 to 1922:

## NUMBER OF CASES OF INDUSTRIAL POISONING AND OF DEATHS FROM GASES AND FUMES REPORTED IN GREAT BRITAIN 1913, 1914, AND 1917 TO 1922.

| Gas or fume.  | 1913 | 1914 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 |
|---|------|------|------|------|------|------|------|------|
| Carbon monoxide:  |      |      |      |      |      |      |      |      |
| Cases.....  | 59   | 62   | 99   | 54   | 85   | 56   | 77   | 111  |
| Deaths.....   | 7    | 9    | 18   | 13   | 12   | 9    | 14   | 14   |
| Carbon dioxide:   |      |      |      |      |      |      |      |      |
| Cases.....  | 12   | 3    | 1    | 5    | 3    |      | 5    | 1    |
| Deaths.....   | 1    | 1    |      | 5    | 1    |      | 4    |      |
| Sulphuretted hydrogen:  |      |      |      |      |      |      |      |      |
| Cases.....  | 8    | 22   | 11   | 7    | 3    | 13   | 3    | 12   |
| Deaths.....   | 1    | 3    | 4    | 1    |      | 4    |      | 3    |
| Sulphur dioxide:  |      |      |      |      |      |      |      |      |
| Cases.....  | 1    | 1    | 2    | 1    | 7    | 2    | 5    | 7    |
| Chlorine:   |      |      |      |      |      |      |      |      |
| Cases.....  | 1    | 2    | 3    | 4    | 9    | 8    | 3    | 11   |
| Nitrous fumes:  |      |      |      |      |      |      |      |      |
| Cases.....  |      | 9    | 62   | 27   | 5    | 9    |      | 8    |
| Deaths.....   |      | 2    | 5    | 7    | 2    | 3    |      |      |
| Ammonia:  |      |      |      |      |      |      |      |      |
| Cases.....  | 3    | 4    | 4    | 6    | 8    |      | 9    | 8    |
| Deaths.....   |      | 1    | 1    | 1    |      |      | 1    | 1    |
| Benzol, naphtha, anilin:  |      |      |      |      |      |      |      |      |
| Cases.....  | 6    | 4    | 4    | 7    | 9    | 12   | 10   | 25   |
| Deaths.....   | 2    | 2    | 2    | 4    | 3    | 1    |      | 1    |
| Arseniuretted hydrogen:   |      |      |      |      |      |      |      |      |
| Cases.....  | 2    | 1    | 12   | 2    | 3    | 5    | 1    | 1    |
| Deaths.....   |      | 1    | 3    |      |      | 3    | 1    |      |
| Tetrachlorethane:   |      |      |      |      |      |      |      |      |
| Cases.....  |      | 25   |      |      |      |      |      |      |
| Deaths.....   |      | 4    |      |      |      |      |      |      |
| Miscellaneous (ether, acetone, nickel carbonyl, carbon bisulphide): |      |      |      |      |      |      |      |      |
| Cases.....  |      |      | 4    | 1    | 3    | 9    | 3    | 10   |
| Deaths.....   |      |      |      |      |      |      |      | 1    |

The number of cases of poisoning from carbon monoxide was considerably larger in 1922 than in the preceding year. There were 28 cases, with 4 deaths, due to blast furnace gas; 37 cases, with 7 deaths, from producer and suction gas; and 32 cases, with 1 death, from coal gas. Of the 14 other cases due to carbon monoxide, 4 occurred at lime kilns, 5 (with 1 death), from coke fires for heating rivets in small spaces on shipboard, and 3, two of them rescuers, occurred in the drum of a steam boiler.

## WORKMEN'S COMPENSATION.

### Review of Compensation Legislation for 1923.

By LINDLEY D. CLARK.

THAT the experimental stage of workmen's compensation legislation is not entirely passed, even after the lapse of 10 years and more since its beginnings in the United States, is suggested by the fact that changes were made in the laws of at least 27 States this year. No new law was enacted, Missouri seeming to be discouraged by the fruitless efforts of the legislatures of 1919 and 1921, which were rejected by referendum votes. However, a senate committee in Florida to consider and report upon a bill at the next session of the legislature is reported, and a joint legislative committee to consider the revision of the law of Rhode Island was provided for in that State.

The legislation presented in Bulletin No. 272 and the supplemental Bulletin No. 332 is in the main affected by modifications of only secondary importance, though there are some important exceptions to this statement. Thus the law of Alaska is made of general application, instead of being restricted to mining and related industries. The number of employees required to bring an employer under the act is reduced in Ohio, Oklahoma, and Tennessee; while in Tennessee, coal mines are presumptively included under the act instead of active election being required.

In a number of States the waiting time is reduced, while in a greater number the maximum weekly payments are increased, the percentage of wages allowed also being made higher in some States. An attempt to meet the situation of employees of different ages, with correspondingly different powers of industrial readjustment and of expectation of trade life, was made in Wisconsin, applying the recommendations of the committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions in this field.

The following summary notes, as a rule, only substantive changes as compared with those of administrative effect, and does not go into full detail in regard to all of them. However, the practical results of the year's legislation are given so far as available at this time. The legislatures of Alabama and Georgia meet relatively late in the legislative year, and the former is not included in the present summary. Otherwise the summary is offered as inclusive. It may be noted that in Alabama an attempt to enact a new law failed.

#### Alaska.

A COMPENSATION law of general application was enacted by the legislature of Alaska, being approved May 4, 1923. This supersedes the act of 1915, which was restricted to mining operations, stamp and roller mills, reduction works, coke ovens, etc.



Public employments are not covered nor is the operation of railroads as common carriers. The usual exclusion of agriculture and domestic service is also made. Election is presumed in employments generally when five or more persons are employed, written notice of rejection being required.

The system of lump-sum payments for death and for permanent total or partial disabilities is unchanged; also the 50 per cent basis for temporary disabilities. The waiting time, however, is reduced from two weeks to one, compensation for the first week being payable if disability continues 8 weeks or more. All lump sums are increased 30 per cent over those provided for in the act of 1915. Nonresident alien dependents receive but 75 per cent of the prescribed benefits. In most other respects the new law corresponds with its predecessor.

#### California.

THE definition of "places of employment" covered by the act is broadened by the addition of the words, "enterprise" and "project"; also by the specific terms, "excavation" and "demolition," places where these activities are carried on being within the act.

If a settlement is made by release or compromise, involving the payment of less than the claimant is entitled to under the law, proceedings for compensation may be brought at any time within two years from the date of the injury.

An attachment of the employer's property to secure the payment of awards may issue "in any case where the employer has failed to secure the payment of compensation" as required by section 29 of the compensation act, i. e., by insurance or by procuring a certificate of competency.

Where the employer is insured and a lien is allowed against the compensation payment, notice of such lien is to be given the insurer instead of the employer.

The increased liability for injury due to the serious and willful misconduct of the employer is extended to cases where the misconduct is that of a managing representative or general superintendent of a partnership.

#### Colorado.

EMPLOYERS not presumptively covered by the act may accept it by insuring their liability in accordance with its terms. Withdrawals may be made only on August 1 of each year, but reinstatement may be made at any time.

Claims for nonfatal injuries must be made within six months, and if filed by other than the claimant are presumed to be his act unless disclaimed by written statement within a reasonable time. Extensions of limitations in cases of claimants who are minors or mental incompetents are no longer allowed. Maximum weekly payments for disability or death are increased from \$10 to \$12. The maximum payment for temporary disability is now \$1,560 as against \$1,300 formerly and for permanent disabilities other than those scheduled, \$3,120 instead of \$2,600. Funeral expenses are advanced from \$75 to \$125. Death benefits are increased from a maximum of \$3,125 to \$3,750; lump-sum commutations for permanent total disability are similarly enlarged.

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Nonresident alien dependents receive one-fourth the normal benefits, with no maximum, instead of one-third but not over \$1,041.66, as before.

Awards not paid when due bear interest at the rate of 8 per cent. Uninsured employers must pay to a trustee a sum equal to the present worth of the award made, discounted at 4 per cent, or file a surety bond. Insurance contracts "may include and cover any liability of the employer on account of personal injuries sustained by or death resulting therefrom to any employee as such." This applies to the State fund as well as to other insurance carriers.

Delaware.

"OFFICERS and servants of the mayor and council of Wilmington," other than those elected or appointed for a term of office of fixed and definite duration, are brought within the scope of the act, the mayor and council being required to secure a certificate of self-insurance.

Georgia.

THE waiting time is reduced from 14 to 7 days, and compensation for a period of total disability, or healing time, not in excess of 10 weeks, is allowed in cases of permanent partial disability, prior to the accrual of the benefits allowed for such partial disability—designated by the amending act as "permanent partial industrial handicap."

The limitation appearing in section 30, on the amount of compensation provided in section 40, which was overlooked in the amendment of 1922, is changed so as to harmonize with the intent of the 1922 legislature, substituting \$5,000 for \$4,000. Another clarifying amendment is one that makes death benefits payable "if death results instantly," as well as if it occurs during the period of disability resulting from an accident.

If notice is given within the first 30 days, it need not be written, but may be given orally by the injured employee, either in person or by his representative, "to the employer, his agent, representative, foreman, or the immediate superior of the injured employee." Written notice is required after 30 days from the injury or death, and it must also be shown that the earlier giving of notice was prevented by incapacity, fraud, or deceit, or that there was knowledge of the accident; or a satisfactory excuse must be offered and a showing of lack of prejudice from the failure to give the notice within the 30 days. Notice in writing may be to the same persons as the oral notice, instead of to the employer only.

Employers failing to comply with the insurance provisions of the act are guilty of a misdemeanor, punishable as provided in the Penal Code, instead of by the special fine provided in the original act. An added 10 per cent to the compensation award, and reasonable attorney's fees are also to be allowed, these penal additions to be due immediately.

Insurance carriers failing to transmit to the industrial commission reports of accidents sent them by the employer for such transmission are subject to a fine of \$25.

## Hawaii.

**MEDICAL**, surgical, etc., aid is to be such as the nature of the injury requires, the limitation as to amount being stricken out. Willful rejection or obstructing the physicians may be construed as waiving in whole or in part the right to such service.

Compensation for total disability now ranges from \$5 to \$20 per week, instead of from \$3 to \$18. If wages are less than \$5, full wages are allowed, unless the disability is permanent, when \$5 is the minimum.

The section presenting the schedule of permanent partial disabilities is amended to provide for cases of less than total loss or total loss of use of a member, a proportionate award to be made therefor. Payments under the schedule are not to begin until after the healing period, for which compensation must be separately paid. Total benefits, other than medical, etc., expenses, are not to exceed \$5,000.

The amount of compensation paid or recoverable in the case of an employee killed or injured by the negligence of a third party can not be offered in evidence in an action for damages against such third party.

Notice of injury is not required where medical, etc., aid has been voluntarily paid by the employer or insurer, or where compensation has been similarly paid.

Cases may be reopened for fraud, either on the application of an interested party, or by the board on its own motion.

## Illinois.

**DULY** appointed members of the fire department of any city of more than 200,000 population are excluded from the coverage of the act.

The occupational diseases law of 1911, whose amendment of 1921 was found defective, was amended in 1923 so as to bring cases of disability or death by occupational disease within the scope of the compensation act, the same as accidental injuries. This remedy is exclusive unless the injury is found to be due to a willful violation of the safety provisions of the occupational diseases act.

## Indiana.

**MINORS**, except those illegally employed, "are hereby made of full age for all purposes, under, in connection with, or arising out of this act."

A mining law provides that in cases of mines with openings in other States whose entries or workings extend into the State of Indiana, the compensation law of the State in which the shaft or opening is located shall prevail.

Employees of municipally operated public utilities are not under the compensation law if the employee or his dependents are entitled to benefits from pension funds of the municipality.

## Iowa.

**COMPENSATION** payments are exempted from garnishment, attachment, or execution.

Policemen (other than those under policemen's pension funds), sheriffs, marshals, etc., and their deputies, injured in the performance

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of their official duties, are brought within the terms of the compensation act, benefits to be payable out of the general funds of the State, under the administration of the industrial commissioner.

#### Massachusetts.

THE waiting time for compensation payments is reduced from 10 to 7 days, benefits beginning the eighth day after the injury.

Failure to make a claim is not to be a bar to benefits in cases where the insurer has executed an agreement as to compensation with the employee or made any payment of compensation.

The municipal law is amended to provide for the establishment of insurance funds to meet compensation payments by cities, etc.

The salaries of the members of the Industrial Accident Board are advanced from \$5,000 to \$5,500, that of the chairman being fixed at \$6,000. The salary of the secretary is \$4,500, instead of \$4,000 as formerly.

#### Minnesota.

COPIES of contracts rejecting the act must be filed with the Industrial Commission. Acceptance of the act is immediately effective, instead of after 30 days, as formerly.

Employers of farm labor may come under the act by posting notice of their election so to do and filing a copy of the same with the Industrial Commission, unless the employee files his rejection. The term "farm laborers" does not in any case include the employees of commercial threshermen or baling press operators. Members of volunteer municipal fire departments are excluded from the act.

Employees regularly transported to and from work by the employer are under the act during such transportation.

Maximum weekly benefits are advanced from \$18 to \$20. Disfigurement benefits may continue for 75 weeks, instead of 50 as formerly. Payment to a widow on remarriage may not exceed two years' benefits, to be for the use of dependent children, if any; but if dependency ceases before the payment is exhausted, the balance is payable to the mother in a lump sum.

If a decedent leaves no dependents, \$200 is to be paid to the State treasurer, instead of \$100 as formerly.

The \$100 limitation on medical, etc., aid is removed; service in excess of 90 days is to be on order of the commission, which may be reviewed on demand of a party in interest. The employer, as well as the employee, may request a change of physicians.

Proceedings to recover compensation must be brought within six years of the date of the accident causing the injury.

In cases of third-party liability, if the employer or employee fails to prosecute the action which the law contemplates, the court may grant the other party the right to intervene to procure the prosecution.

Noncompliance with the requirements as to insurance entails a penalty of five times the legal premium for the period of noncompliance.

The third member of the Industrial Commission is no longer to be appointed by the governor, but is, ex officio, the actuary of the State Insurance Department.

[1930]

## Nevada.

**C**OMPENSATION is payable from the date of the injury in all cases in which disability lasts seven days or more, instead of only in cases of a second full week of disability.

## New Hampshire.

**M**EDICAL, etc., service is required during the first 14 days after an injury, without the necessity of proceedings to secure the same; but such service shall not be considered as evidence in any suit for damages. Proceedings for other benefits under the compensation act call for notice and claim, as heretofore.

Maximum weekly benefits for disability are increased from \$10 to \$15. Section 6 of the act is amended so as to give compensation for disability of "not less than one week"; but the provision requiring two weeks' disability, found in section 3, is unchanged. Section 6 also provides that where compensation is payable it shall date from the day of the injury.

The limiting phrase, "resident of this State," as applied to dependents, is stricken out.

## New Jersey.

**W**EEKLY benefits range from \$8 to \$17 instead of from \$6 to \$12 as formerly; but if the wages are less than \$8, full wages are paid.

Benefits for partial disability may continue 500 weeks, instead of 400 weeks as formerly. For total disability, the maximum of 400 weeks may be extended in the case of workmen who have accepted rehabilitation under the State commission, benefits to be reduced in proportion to earnings as compared with earnings prior to the injury.

The maximum for burial expenses is increased from \$100 to \$150, while the allowance for last sickness in fatal cases is reduced from \$200 to \$100. Death benefits plus disability benefits prior to death may total 500 weeks instead of 400 as formerly; and if at the end of the normal period of 300 weeks there is still a dependent under 16, benefits continue until that age is reached. Dependency is made to cease at 16 instead of 18 as formerly.

Benefits are payable from the date of the injury if disability extends beyond seven weeks.

A separate act requires insurance carriers to pay a sum equal to 1 per cent of the compensation paid out, for the maintenance of a State rehabilitation fund. A commission to study and report on the question of providing compensation for occupational diseases is also provided for.

## New York.

**C**OMPENSATION payments on account of injuries to minors under 18 years of age employed in violation of the labor law are to be double the standard amounts. No insurance may be taken to cover such additional liability.

The maximum funeral expenses are \$200 instead of \$100 as formerly.

The State fund may use 25 per cent of the earned premiums for any year as administrative expenses, instead of 15 per cent, as formerly.

Counties, cities, villages, and towns may organize and maintain a system of mutual self-insurance to care for their compensation liabilities.



## North Dakota.

THE extraterritorial effect of the law is limited to those cases in which there is a specific insurance contract covering employees outside the State; and at least two-thirds of the pay roll of the employer must be for work done within the State.

Insurance in the State fund runs from the date of notice to the employer of the amount due instead of from the date of payment of premium. Premium payments may be made in 30 days after notice instead of 10 days as before. Additional penalties are provided for default in payment of premium or filing bonds.

It is provided by a separate act that a working employer of insured employees may by special contract provide coverage for himself.

## Ohio.

THE law now applies automatically to employers of three or more workmen, instead of five as formerly.

The maximum weekly benefit is made \$18.75 in lieu of the former limit of \$15; and death benefits may aggregate \$6,500 instead of \$5,000 as before.

An amendment to the constitution was passed, to be submitted to vote at the November, 1923, election, making recovery under the compensation act a bar to actions for damages in all cases of death, injury, or occupational disease. A special fund would be authorized for the investigation and prevention of industrial accidents and diseases. If it is found in any case that injury, disease, or death was caused by "the failure of the employer to comply with any specific requirement for the protection of the lives, health, or safety of employees," enacted by the legislature or ordered by the Industrial Commission, the compensation award may be increased from 15 to 50 per cent, as may be found just. The findings of the commission in respect of such failure are to be final.

## Oklahoma.

THE act now applies to employers of two or more workmen, instead of more than two. Lumber yards are listed among the hazardous employments, and the exception excluding salesmen is stricken out. Compensation is 66⅔ per cent of the average weekly wages, instead of 50 per cent, as formerly.

A provision is added to the schedule for partial disabilities covering the permanent partial loss of use of a member or of the sight of an eye, awards proportionate to those named in the schedule to be allowed. There is also a special provision as to hernia, allowing benefits for eight weeks, besides the cost of operation; but if the hernia results in permanent total disability, compensation shall be allowed accordingly.

Waiting time is reduced from 7 to 5 days, and the provision for retroactive compensation after 21 days' disability is omitted.

If the employer fails to furnish emergency medical and surgical aid, the employee may procure it at the former's expense. All charges for medical, etc., aid must now be submitted to the commission for approval, instead of only those in excess of \$100.

If an appeal results in the affirmance of an award, interest from the date of the award must also be paid.

[1932]

Provisions are made for workmen who associate to perform a piece of work being classed as employees if doing all the work themselves; but if they employ two or more other workmen, the provisions relative to independent contractors are applicable. If a principal does not require his contractor to comply with the act (though compliance is presumed), the principal is himself liable; but the contractor's failure to comply is to be construed as a violation of the contract, and any unpaid balance due him may be withheld to meet compensation claims.

The license of insurance carriers who "intentionally, knowingly, or willfully" violate any of the provisions of the act shall be revoked on the request of the commission.

Unpaid insurance premiums are placed on a par with compensation awards, having the same preference as unpaid wages.

A resolution of the legislature proposes an amendment to the constitution of the State which will permit the extension of the compensation law to fatal injuries, which the present constitution prevents.

#### Oregon.

THE appropriation from the State treasury "equal to one-half of the total administrative expenditures of the commission," is omitted for the period, June 30, 1923, to June 30, 1925.

The acceptance of the Federal vocational rehabilitation act incorporates a provision devoting to this cooperative undertaking the funds being expended by the Industrial Accident Commission for the rehabilitation of injured workmen under the compensation act.

#### Pennsylvania

THE schedule of partial disabilities for which specific provision is made is extended by the addition of awards for a thumb (60 weeks), index finger (35 weeks), second finger (30 weeks), third finger (20 weeks), and little finger (15 weeks); also provisions for loss of a phalange, and for permanent loss of use of hand, arm, foot, leg, or eye. Expenses of burial are to be paid by the employer or insurer directly to the undertaker, and not to the dependents or personal representative, as formerly.

#### Rhode Island.

THE compensation act of Rhode Island was not changed this year, but a legislative committee was appointed to consider the matter of revising and amending the act, to report in January, 1924.

#### South Dakota.

EMPLOYERS not presumptively covered by the act may elect its acceptance by voluntarily insuring their risks, leaving to employees the right of rejection if they desire to do so.

The word "casual" is omitted from the exclusion of employments "not in the usual course of trade," etc., of the employer.

A provision relative to partial disability due to the partial and permanent loss of use of a member makes compensation therefor proportionate to that for the complete loss of use of the member.

The State and its municipalities are no longer required to furnish bond or other security to guarantee compensation payments, but may do so if they desire thus to protect their risks.

A separate enactment authorizes insurance carriers to issue policies covering employers, including the executive officers of corporations, their estimated wages to be "reasonably and separately stated in and added to the valuation of their pay rolls."

#### Tennessee.

**E**MLOYERS of five or more workmen are now within the act, instead of 10 or more as formerly, though the number 10 is still unchanged in section 6 (d). Also, coal mines are presumptively covered instead of requiring active election. These may insure or carry self-insurance as other industries; or they may become members of an association to be known as the "Coal Operators' Protective Fund." This fund is to be maintained in the State treasury, settlements to be approved by the commissioner of labor. Catastrophe payments, and apparently others, are to be made on vouchers approved by the commissioner of insurance and banking, who has general supervision of the fund, and by the commissioner of labor. Payments go directly to the injured employee or his legal representative.

Maximum weekly benefits may be \$12, instead of \$11 as before, but with possible increases to \$15 for permanent total disability or death, according to the number of dependents.

The waiting time is reduced from 14 to 7 days.

#### Texas.

**T**HE date of the receipt of notice by the Industrial Accident Board is the date when employees are "conclusively deemed to have notice of the fact" that the employer is a subscriber under the compensation act. Notice of withdrawal must be posted in "three public places" around the plant.

Officers and directors of corporations are not to be deemed employees, even though receiving salaries for the performance of other duties or the rendering of other services.

Weekly payments range from \$7 to \$20, instead of from \$5 to \$15 as formerly, and the term of medical, etc., aid is extended from two to four weeks.

Parents and stepmothers are made presumptively dependent. The parents of minor employees have no right of action against an employer or his agent for injuries to such minors, the compensation law affording the exclusive remedy.

The salaries of the commissioners were increased \$1,500 each, and of the secretary \$700, being now \$4,500 for the chairman, \$4,000 for the other members, and \$2,700 for the secretary.

#### Utah.

**T**HE only changes made this year relate to insurance, an annual audit of the State insurance fund being provided for and the commission being given power to fix "uniform rates" for stock and mutual insurance companies, though these rates need not be uniform with those fixed for the State fund.

[934]

## Vermont.

**E**LECTION to come under the act is provided for employers of 10 employees or less, instead of 10 men or less, as formerly; also, charitable, religious, etc., organizations and persons and institutions in business not for pecuniary gain may elect to come within the provisions of the act.

In case of the death of an injured workman from some other cause than the injury, during the term of compensation payments, unpaid balances shall go to the dependents of the decedent, if any; otherwise a sum not exceeding \$100, if so much remains, shall be paid in a lump sum for funeral expenses.

The commissioner of industries is authorized to approve compromise agreements if in his opinion they are clearly to the best interests of the claimant.

## Washington.

**E**MployERS not compulsorily subject to the act may apply to the director of labor and industries for a fixing of premium rates. Notice is then filed with the supervisor of industrial insurance and is posted in the place of business. The employee's acceptance is presumed five days after the posting or after accepting employment.

The industries covered have been newly classified, 50 classes, most of them with various subclasses, being established. Salaried peace officers of the State and its counties and municipalities are under the act unless cared for otherwise by law, charter, or ordinance.

Monthly payments for temporary disability and for death are increased, as well as the specific amounts for scheduled injuries causing partial disability. Thus if the totally disabled employee has a wife or invalid husband and no child, the monthly payment is now \$42.50, as against \$37.50 formerly, in case of temporary disability, and \$40, instead of \$30, if the disability is permanent.

Payment for the loss of a leg not permitting the use of an artificial limb is increased from \$2,000 to \$2,400, and for the loss of a major arm at or below the elbow, from \$1,900 to \$2,280.

Burial allowances are \$100 if the decedent is unmarried, and \$150 if a widow or child survives, instead of \$75 and \$100, respectively. A widow or invalid widower receives \$35 instead of \$30 as formerly; and instead of \$5 for each child under the age of 16, \$12.50 is allowed for the youngest or only child, \$7.50 for the next, and \$5 for each additional, the maximum limit of \$50 per month being stricken out.

The above will illustrate the nature of the changes, but does not give them all.

The waiting time is reduced from 7 to 3 days, benefits to date from the receipt of the injury if disability continues for more than 30 days.

The reclassification of industries noted above sets forth the contributions to be made to the medical aid fund, instead of leaving this to the division of industrial insurance. The rates are from 1 to 3 cents per man per day. Mechanical appliances for treatment are chargeable to the medical aid fund, while those for permanent use come from the accident fund. The limitation of \$165 as a maximum for artificial eyes or limbs is removed.

[1935]

Premium payments fall due each four months, instead of annually, and adjustments are made 30 days prior to each call. Construction building permits are to be issued by cities or towns only when the premium has been paid on the estimated pay roll for the undertaking.

#### West Virginia.

THE provision of section 9 of the act charging independent contractors with responsibility for the employees of subcontractors is stricken out.

The classification of industries formerly embodied in the act is omitted, and the duty of making classifications and reclassifications devolves upon the compensation commissioner.

A catastrophe fund is to be formed by setting aside 10 per cent of the premiums until \$500,000 accrues, after which 5 per cent will be credited to the fund until a sufficient sum, in the judgment of the commissioner, is in hand for catastrophes and other losses not specifically provided for. The amount that may be expended for medical, etc., aid is advanced from \$150 to \$300. The amount available in cases of permanent disability, where the commissioner is of the opinion that a material improvement can be effected by medical, surgical, or hospital treatment, is fixed at \$600, instead of \$300, in addition to the usual allowance.

The basis of compensation for disability and for the death of minor employees is advanced from 50 to 66 $\frac{2}{3}$  per cent of the wages. The maximum weekly payment is increased from \$12 to \$16. A clause is added allowing 8 weeks' compensation for a 2 per cent disability; and the age at which a child's dependency normally ceases is changed from 15 to 16 years. The compensation payable to the father of a deceased minor employee is to be continued to the end of the prescribed period by payments to the mother, if the father dies within the period.

Payments to the widow or invalid widower of a deceased employee are \$30 per month, in lieu of \$20 as formerly. If orphan children under 16 years of age survive, they are to receive \$10 each month until that age is reached or until death prior to that age.

#### Wisconsin.

A NOVEL provision is made for the protection of the interests of dependent children, extending to the age of 15 years, in addition to the award to the widow. For a child one year of age or under an allowance is made equivalent to five-sevenths of the annual earnings of the deceased employee, the maximum being \$1,000. For successive ages this amount is decreased at the rate of one-fifteenth for each year. These benefits accrue at the rate of 10 per cent of the surviving parent's weekly indemnity. No total is to exceed the limits of a total disability benefit.

Payments in this behalf are to be made from a fund supported by contributions by employers of workmen who are fatally injured and leave no one wholly dependent. Such contributions, added to the payments on account of partial dependents, are to aggregate four times the deceased employee's annual earnings; but no contribution



shall exceed \$1,000. A lawfully adopted child or other child living as a member of the family is to be rated as a child by marriage.

A new rating of permanent partial disabilities is made, classing them as major and minor. Major injuries are rated on the basis of the permanent disability of a workman aged 30, the term of such disability being fixed at 900 weeks. The percentage for the loss of an arm at the shoulder or of a leg at the hip joint is 50, for the blindness of one eye, 20, etc. The percentage is reduced by yearly gradations for younger workers to 40 at age 15 or younger, and increased in like manner for those above 30 to 85 at age 70 or older. The minor injury schedule is on the basis of a fixed number of weeks, as formerly, with some increase in the allowance for the more serious injuries. The allowance fixed is to cover the healing period, though added provision may be made where the healing period is abnormally long.

Burial allowance may be \$200 instead of \$100, as formerly; and compensation dates from the injury after 3 weeks' disability instead of after 4 weeks' disability.

The benefit period for permanent total disability is fixed at 900 weeks for persons under 31. For those 31 or above, the term is shortened at the rate of 16 weeks per year, until a minimum of 260 weeks is reached, at age 70.

The crews of shredders, threshers, etc., are brought within the act, even if less than three in number, by an amendment that requires farmers and farm laborers working along with the employees of an employer not engaged in farming to be counted in determining the number of employees of the latter.

The wage on which compensation is to be computed is advanced from \$26 to \$28 per week, and from \$1,300 to \$1,400 per year. The compensation for injuries to a minor is to be based on his probable earnings after reaching the age of 21, presumed to be the maximum basic wage.

An amendment to the act regulating the licensing of circuses, shows, entertainments, etc., forbids the issue of such license until it is shown that the proprietor, if subject to the insurance provisions of the compensation act, has complied therewith.

#### Wyoming.

THAT form of transportation classed as "general trucking" is rated as hazardous and within the law; while domestic, ranch, and farm labor, and sheriffs and constables and their deputies are expressly excluded.

The annual allowance of \$120 to children under 16 years in cases of death or total disability continues to 18 years in the case of daughters; and dependent parents receive \$1,000 as a lump sum, instead of an amount in proportion to their dependency. Nonresident alien parents receive one-third this sum.

An additional allowance of \$100 per month may be made for medical, etc., treatment in cases of disability extending beyond 30 days.

Attending physicians, other than those giving first aid, are to report to the county clerk and the State treasurer the nature of the employee's injuries.

Dependents to be reported by an employee entering on extra-hazardous employment must now include daughters to 18 years of age.

Suits for damages may be brought where the employer is not, at the time of the injury, a contributor to the State accident fund.

Claims must be filed within 12 months of the date of the injury.

### Cost of Workmen's Compensation per Workday in Oregon.

THE Oregon Industrial Accident Commission has completed a study having for its object the determination of what on the average was the amount paid out per workday for the various disabilities resulting from accidents under the Oregon compensation law.<sup>1</sup> The study covered the two years from July 1, 1921, to June 30, 1923. There has been considerable controversy in the United States as to what extent workmen's compensation laws burden industry and affect competition in the several States. The following statement which shows the cost of each type of compensation benefits per workday in Oregon during the two-year period ending June 30, 1923, throws considerable light upon this problem:

| Benefits for—   | Amount per<br>workday. |
|---|------------------------|
| Death.....  | \$0.023                |
| Permanent total disability.....   | .002                   |
| Permanent partial disability.....   | .018                   |
| Temporary disability.....   | .027                   |
| Medical aid, hospitals, artificial limbs, transportation, medicines, X ray..... | .020                   |
| Physiotherapy treatments.....   | .002                   |
| Vocational rehabilitation of crippled workmen.....                              | .002                   |
| Administrative expense.....   | .010                   |
| Total.....  | .106                   |

### Promptness in Accident Reporting and Submitting Compensation Agreements in Pennsylvania.

THE Department of Labor and Industry of Pennsylvania has completed another study of the promptness with which accidents are reported and compensation agreements submitted by the various insurance carriers and self-insured employers in that State. The result of this study is shown in the following table. The period for which this study was made covered the first eight months of 1922. The experience of all the insurance carriers, including the State fund, was taken. The 92 self-insurers were selected both for industry and size, but in no instance were more than 150 compensable cases of any one self-insurer used.

<sup>1</sup> Oregon Safety News, July, 1923.

COMPARISON OF PROMPTNESS OF VARIOUS COMPANIES IN REPORTING ACCIDENTS AND SUBMITTING AGREEMENTS FOR APPROVAL IN PENNSYLVANIA, 1922.<sup>1</sup>

| Period.                    | State fund<br>(250 cases).  | Private<br>companies<br>(5,644 cases). | 92 self-<br>insurers<br>(4,911 cases). | All carriers<br>(10,805 cases). |                          |                 |                          |                 |
|----------------------------|---|--|--|---------------------------------|--------------------------|-----------------|--------------------------|-----------------|
|                            | Per cent of cases with each specified interval between date of<br>accidents and receipt of— |  |  |                                 |                          |                 |                          |                 |
|                            | Acci-<br>dent<br>report.  | Agree-<br>ment.                        | Acci-<br>dent<br>report.               | Agree-<br>ment.                 | Acci-<br>dent<br>report. | Agree-<br>ment. | Acci-<br>dent<br>report. | Agree-<br>ment. |
| 1 to 7 days.....           | 18.40   | .....                                  | 27.83                                  | 0.02                            | 19.80                    | 0.04            | 23.94                    | 0.03            |
| 8 to 14 days.....          | 37.20   | .....                                  | 30.85                                  | 1.66                            | 26.40                    | .71             | 28.94                    | 1.19            |
| 15 to 21 days.....         | 12.40   | 7.20                                   | 15.67                                  | 11.16                           | 23.70                    | 5.10            | 19.40                    | 8.31            |
| 22 to 28 days.....         | 6.00  | 13.60                                  | 8.26                                   | 18.20                           | 13.30                    | 15.73           | 10.48                    | 16.95           |
| 29 to 35 days.....         | 4.40  | 20.40                                  | 4.94                                   | 17.70                           | 7.56                     | 20.20           | 6.10                     | 18.88           |
| 36 to 42 days.....         | 4.40  | 13.20                                  | 3.60                                   | 13.95                           | 3.79                     | 19.12           | 3.70                     | 16.26           |
| 43 to 49 days.....         | 8.00  | 10.40                                  | 2.36                                   | 9.97                            | 2.30                     | 13.63           | 2.45                     | 11.63           |
| 50 to 56 days.....         | 2.00  | 10.00                                  | 2.09                                   | 7.71                            | 1.12                     | 8.64            | 1.64                     | 8.17            |
| 57 to 63 days.....         | 1.20  | 6.00                                   | 1.22                                   | 5.80                            | .51                      | 4.77            | .90                      | 5.32            |
| 64 to 70 days.....         | 1.20  | 6.00                                   | .76                                    | 3.62                            | .35                      | 3.79            | .58                      | 3.76            |
| 71 to 77 days.....         | .80   | 1.20                                   | .53                                    | 2.42                            | .18                      | 2.36            | .38                      | 2.37            |
| 78 to 84 days.....         | 1.20  | 3.60                                   | .35                                    | 1.97                            | .29                      | 1.36            | .34                      | 1.73            |
| 85 to 91 days.....         | .....   | .....                                  | .44                                    | 1.27                            | .16                      | 1.10            | .31                      | 1.17            |
| 92 to 98 days.....         | .40   | .80                                    | .25                                    | .83                             | .06                      | .96             | .17                      | .89             |
| 99 to 105 days.....        | .....   | .40                                    | .25                                    | .81                             | .12                      | .39             | .18                      | .61             |
| 106 to 140 days.....       | 1.60  | 4.00                                   | .48                                    | 2.00                            | .22                      | 1.49            | .39                      | 1.81            |
| Over 140 days.....         | .80   | 3.20                                   | .12                                    | .90                             | .06                      | .61             | .11                      | .91             |
| Total.....                 | 100.00  | 100.00                                 | 100.00                                 | 100.00                          | 100.00                   | 100.00          | 100.00                   | 100.00          |
| Median (in days).....      | 13.98   | 40.77                                  | 13.00                                  | 36.63                           | 16.10                    | 39.00           | 13.30                    | 37.98           |
| Accident reports received— |   |  |  |                                 |                          |                 |                          |                 |
| Within 1 week.....         | 18.40   | .....                                  | 27.83                                  | .....                           | 19.80                    | .....           | 23.94                    | .....           |
| Within 2 weeks.....        | 55.60   | .....                                  | 58.68                                  | .....                           | 46.20                    | .....           | 52.88                    | .....           |
| Later than 10 weeks.....   | 4.80  | .....                                  | 2.42                                   | .....                           | 1.09                     | .....           | 1.88                     | .....           |
| Agreements received—       |   |  |  |                                 |                          |                 |                          |                 |
| Within 4 weeks.....        | .....   | 20.80                                  | .....                                  | 31.05                           | .....                    | 21.58           | .....                    | 26.48           |
| Later than 10 weeks.....   | .....   | 13.20                                  | .....                                  | 10.20                           | .....                    | 6.27            | .....                    | 9.49            |

<sup>1</sup> Includes only closed, compensable, noncontested, nonfatal cases.

Another table compares the experience of stock companies and mutual companies with reference to promptness in accident reporting and submitting agreements. This table shows that the average (median) interval between the date of accident and receipt of accident report was 13.20 days for stock companies and 12.27 days for mutual companies; while the average (median) interval between the date of the accident and receipt of the compensation agreement was 37.09 days for stock companies and 35.53 days for mutual companies.

## COMPARISON OF PROMPTNESS OF STOCK AND MUTUAL COMPANIES IN REPORTING ACCIDENTS AND SUBMITTING AGREEMENTS IN PENNSYLVANIA, 1922.

| Period.                    | Stock companies<br>(4,299 cases).  | Mutual companies.<br>(1,345 cases). |                     |                 |
|----------------------------|--|-------------------------------------|---------------------|-----------------|
|                            | Per cent of cases with each specified interval<br>between date of accident and receipt of— |                                     |                     |                 |
|                            | Accident<br>report.  | Agree-<br>ment.                     | Accident<br>report. | Agree-<br>ment. |
| 1 to 7 days.....           | 26.98  | 0.02                                | 31.23               | .....           |
| 8 to 14 days.....          | 31.01  | 2.00                                | 30.86               | 0.59            |
| 15 to 21 days.....         | 16.07  | 11.93                               | 13.46               | 8.77            |
| 22 to 28 days.....         | 8.49   | 17.26                               | 7.36                | 21.10           |
| 29 to 35 days.....         | 5.16   | 16.68                               | 4.24                | 20.95           |
| 36 to 42 days.....         | 3.58   | 13.58                               | 3.87                | 15.08           |
| 43 to 49 days.....         | 2.54   | 10.37                               | 1.86                | 8.69            |
| 50 to 56 days.....         | 1.86   | 7.93                                | 2.45                | 6.98            |
| 57 to 63 days.....         | 1.26   | 6.12                                | 1.19                | 4.76            |
| 64 to 70 days.....         | .74  | 3.74                                | .67                 | 3.19            |
| 71 to 77 days.....         | .51  | 2.47                                | .52                 | 2.30            |
| 78 to 84 days.....         | .19  | 2.07                                | .89                 | 1.63            |
| 85 to 91 days.....         | .44  | 1.35                                | .45                 | 1.04            |
| 92 to 98 days.....         | .26  | .81                                 | .22                 | .89             |
| 99 to 105 days.....        | .33  | .85                                 | .07                 | .67             |
| 106 to 140 days.....       | .49  | 2.02                                | .45                 | 1.93            |
| Over 140 days.....         | .09  | .77                                 | .22                 | 1.34            |
| Total.....                 | 100.00   | 100.00                              | 100.00              | 100.00          |
| Median (in days).....      | 13.20  | 37.09                               | 12.27               | 35.53           |
| Accident reports received— |  |                                     |                     |                 |
| Within 1 week.....         | 26.98  | .....                               | 31.23               | .....           |
| Within 2 weeks.....        | 57.99  | .....                               | 62.09               | .....           |
| Later than 10 weeks.....   | 1.80   | .....                               | 2.81                | .....           |
| Agreements received—       |  |                                     |                     |                 |
| Within 4 weeks.....        | .....  | 31.21                               | .....               | 30.46           |
| Later than 10 weeks.....   | .....  | 10.37                               | .....               | 9.89            |

## Remarriage Rates of Widows in Pennsylvania Coal-Mining Industry.

MANY of the State compensation laws provide that in the case of the death of a workman, compensation shall be paid to the widow until her death or remarriage. In computing compensation insurance rates and setting up reserves in death cases, it becomes necessary therefore to know not only the life expectancy, but also the remarriage expectancy of widows of deceased workers. Little data have been collected by the various State compensation commissions on this subject. Many of the State funds and insurance carriers, in the absence of American data, use the Dutch remarriage table.

The following table compiled by the Insurance Department of Pennsylvania shows the remarriage rates by ages of widows in the coal-mining industry during the period 1916-1920 inclusive.<sup>1</sup>

<sup>1</sup> Statistical Analysis of Coal Mine Accidents in Pennsylvania 1916 to 1920 inclusive, compiled jointly by the Insurance Department of Pennsylvania and the coal-mine section of the Pennsylvania Compensation Rating and Inspection Bureau, p. 60.

REMARRIAGE RATES OF WIDOWS IN COAL-MINING INDUSTRY IN PENNSYLVANIA,  
BY AGE GROUPS.

| Age group.                        | Number<br>of<br>widows. | Number<br>re-<br>married. | Years<br>exposed<br>(total<br>years of<br>widow-<br>hood). | Remar-<br>riage rate<br>per 100<br>years ex-<br>posed. | Dutch<br>Royal<br>Institute<br>table. |
|-----------------------------------|-------------------------|---------------------------|--|--|---------------------------------------|
| Average age (years).....          | 34.7                    | 28.9                      |  |  |                                       |
| Under 21 years of age.....        | 57                      | 24                        | 121  | 19.83  | 10.68                                 |
| 21 and under 26 years of age..... | 124                     | 31                        | 300  | 10.33  | 9.79                                  |
| 26 and under 31 years of age..... | 219                     | 51                        | 563  | 9.06   | 7.84                                  |
| 31 and under 36 years of age..... | 175                     | 33                        | 466  | 7.08   | 5.56                                  |
| 36 and under 41 years of age..... | 108                     | 18                        | 447  | 4.03   | 3.45                                  |
| 41 and under 46 years of age..... | 81                      | 7                         | 220  | 3.18   | 1.92                                  |
| 46 and under 51 years of age..... | 73                      |                           | 222  |  | .95                                   |
| 51 and under 56 years of age..... | 39                      | 2                         | 123  | 1.63   | .42                                   |
| 56 and under 61 years of age..... | 30                      |                           | 74   |  | .15                                   |
| 61 and over.....                  | 14                      |                           | 44   |  |                                       |
| Age not given.....                | 7                       |                           | 23   |  |                                       |
| All ages.....                     | 987                     | 166                       | 2,603  | 6.38   | 3.48                                  |

## Recent Workmen's Compensation Reports.

## Alabama.

THE first report containing the results of the operation of the Alabama compensation act during the four-year period ending December 31, 1922, has just been published by the Alabama workmen's compensation commissioner. The Alabama compensation act is an elective one and applies only to employers having 16 or more employees. The law is administered through the courts, although the workmen's compensation commissioner has limited supervisory authority including the power to require employers to report their accidents to the commissioner.

In addition to data on the number and cost of industrial accidents the report contains considerable matter of general interest, including a review of compensation insurance legislation and administration in other States. The report also contains the results of a study of damage-suit settlements in the State during the year preceding the operation of the workmen's compensation law. It was found that "the average duration of damage suits in the Circuit Court of Jefferson County extended over a period of 13 months and 18 days. The total amount of damages sought was \$375,000, whereas the total amount of damages recovered was \$4,112.50 of which meager amount perhaps one-half was paid out in attorneys' fees." The average amount of damages sought was \$11,924.24 per case, while the average amount of damages recovered was \$127.65 per case.



The following table shows the number and incurred cost of compensable accidents in Alabama for the three years 1920, 1921, and 1922, by extent of disability:

NUMBER AND INCURRED COST OF COMPENSABLE ACCIDENTS IN ALABAMA, 1920, 1921, AND 1922, BY EXTENT OF DISABILITY.

| Type of injury.                          | Number of accidents. |       |       | Compensation benefits (exclusive of medical benefits). |           |           |
|--|----------------------|-------|-------|--|-----------|-----------|
|  | 1920                 | 1921  | 1922  | 1920   | 1921      | 1922      |
| Death:                                   |                      |       |       |  |           |           |
| With dependents.....                     | 141                  | 119   | 186   | \$352,376  | \$199,555 | \$382,728 |
| Without dependents.....                  | 45                   | 25    | 45    | 4,500  | 2,500     | 4,500     |
| Permanent total disability.....          | 10                   | 14    | 4     | 41,223   | 39,772    | 10,823    |
| Permanent partial disability.....        | 475                  | 414   | 358   | 248,854  | 225,706   | 149,802   |
| Temporary disability (over 2 weeks)..... | 5,487                | 3,727 | 5,176 | 333,247  | 236,682   | 250,376   |
| Total.....                               | 6,158                | 4,299 | 5,769 | 980,200  | 704,215   | 798,229   |

The following table shows the number of industrial accidents in Alabama for the three-year period, 1920 to 1922, classified by industry and extent of disability:

NUMBER OF INDUSTRIAL ACCIDENTS IN ALABAMA, THREE-YEAR PERIOD 1920 TO 1922 CLASSIFIED BY INDUSTRY AND EXTENT OF DISABILITY.

| Industry.  | Number of accidents resulting in— |   |   |                             |                          |                          | Total. |
|--|-----------------------------------|---|---|-----------------------------|--------------------------|--------------------------|--------|
|  | Death.                            | Perma-<br>nent<br>total<br>dis-<br>ability. | Perma-<br>nent<br>partial<br>dis-<br>ability. | Temporary disability<br>of— |                          |                          |        |
|  |                                   |   |   | Over 8<br>weeks.            | Over 4<br>to 8<br>weeks. | Over 2<br>to 4<br>weeks. |        |
| Mining, coal.....                                      | 306                               | 13  | 298   | 739                         | 1,751                    | 1,823                    | 4,930  |
| Mining, other.....                                     | 19                                |   | 39  | 130                         | 261                      | 395                      | 844    |
| Metallurgy.....  | 10                                |   | 8   | 22                          | 52                       | 85                       | 177    |
| Quarrying.....   | 1                                 |   | 5   | 12                          | 22                       | 44                       | 84     |
| Logging.....   | 38                                |   | 57  | 60                          | 144                      | 150                      | 449    |
| Manufacturing:   |                                   |   |   |                             |                          |                          |        |
| Food.....  | 1                                 |   | 12  | 17                          | 57                       | 68                       | 155    |
| Textiles.....  | 5                                 |   | 80  | 68                          | 233                      | 283                      | 669    |
| Laundries, cleaning and dyeing.....                    | 1                                 |   | 6   | 1                           | 8                        | 16                       | 32     |
| Printing and publishing.....                           | 1                                 |   | 7   |                             | 13                       | 12                       | 33     |
| Saw mills.....   | 30                                | 2   | 153   | 157                         | 376                      | 435                      | 1,153  |
| Other wood products.....                               | 14                                | 2   | 94  | 62                          | 201                      | 212                      | 585    |
| Blast furnaces, steel works, and rolling<br>mills..... | 44                                | 3   | 157   | 280                         | 772                      | 1,618                    | 2,874  |
| Machinery (not forging or woodwork).....               | 2                                 |   | 51  | 33                          | 79                       | 132                      | 293    |
| Vehicles.....  | 3                                 | 2   | 18  | 8                           | 48                       | 55                       | 134    |
| Clay and stone products.....                           | 7                                 |   | 16  | 16                          | 106                      | 149                      | 294    |
| Chemicals.....   | 12                                |   | 25  | 23                          | 80                       | 84                       | 224    |
| Construction, engineering.....                         | 12                                | 2   | 12  | 59                          | 110                      | 127                      | 322    |
| Construction, building.....                            | 8                                 |   | 14  | 34                          | 109                      | 111                      | 276    |
| Shipbuilding.....                                      | 12                                | 2   | 72  | 67                          | 125                      | 166                      | 444    |
| Stevedoring.....                                       | 2                                 | 1   | 11  | 148                         | 445                      | 115                      | 722    |
| Steam railroads.....                                   | 11                                | 1   | 48  | 61                          | 192                      | 183                      | 496    |
| Cartage and trucking.....                              | 2                                 |   | 7   | 54                          | 62                       | 71                       | 196    |
| Public utilities.....                                  | 11                                |   | 25  | 53                          | 109                      | 147                      | 345    |
| Trade (stores and warehouses).....                     | 6                                 |   | 16  | 27                          | 124                      | 133                      | 306    |
| Clerical and professional service.....                 | 1                                 |   | 4   | 8                           | 27                       | 20                       | 60     |
| Miscellaneous.....                                     | 2                                 |   | 12  | 7                           | 44                       | 64                       | 129    |
| Total.....   | 561                               | 28  | 1,247   | 12,143                      | 15,549                   | 6,698                    | 16,226 |

<sup>1</sup> Not the exact sum of the items, but is as given in the report.

The report also contains detailed tables showing classification of accidents by cause, sex, age, and extent of disability.

[942]

## Georgia.

THE following figures showing the number of accidents and compensation costs incurred under the Georgia compensation act for the calendar year 1922 are taken from the second annual report of the Industrial Commission of Georgia. The Georgia compensation act was amended August 16, 1922, increasing the benefits and reducing the waiting period. Separate figures have therefore been given for the periods prior and subsequent to August 16. These data have been combined in the following table. The report does not contain a classification of accidents by cause or industry.

NUMBER OF ACCIDENTS AND COMPENSATION COST INCURRED UNDER GEORGIA COMPENSATION ACT, CALENDAR YEAR 1922.

| Type of injury.                      | Number of accidents. | Benefits.     |                      |          |
|--------------------------------------|----------------------|---------------|----------------------|----------|
|                                      |                      | Compensation. | Medical.             | Funeral. |
| Death:                               |                      |               |                      |          |
| Total dependency.....                | 68                   | \$142,415     | \$3,095              | \$6,089  |
| Partial dependency.....              | 12                   | 8,270         | 880                  | 975      |
| No dependency.....                   | 20                   | .....         | 325                  | 1,916    |
| Total.....                           | 100                  | 150,685       | 4,300                | 8,980    |
| Permanent total disability.....      | 4                    | 10,576        | 334                  | .....    |
| Permanent partial disability:        |                      |               |                      |          |
| Dismemberments <sup>1</sup> .....    | 347                  | 113,347       | <sup>2</sup> 16,085  | .....    |
| Loss of use.....                     | 123                  | 49,715        | <sup>3</sup> 7,944   | .....    |
| Total.....                           | 470                  | 163,062       | 24,029               | .....    |
| Temporary disability:                |                      |               |                      |          |
| 2 weeks and under <sup>4</sup> ..... | 13,379               | 4,701         | <sup>5</sup> 104,235 | .....    |
| Over 2 weeks.....                    | 3,065                | 118,669       | <sup>6</sup> 96,849  | .....    |
| Total.....                           | 16,444               | 123,370       | 201,084              | .....    |
| Grand total.....                     | 17,018               | 447,693       | 229,747              | 8,980    |

<sup>1</sup> Includes total loss of vision of one eye.

<sup>2</sup> 6 cases under medical contract.

<sup>3</sup> 2 cases under medical contract.

<sup>4</sup> Waiting period reduced from 2 weeks to 1 week Aug. 16, 1922.

<sup>5</sup> 24 cases under medical contract.

<sup>6</sup> 97 cases under medical contract.

## Ohio.

THE following statement of the condition of the Ohio State insurance fund as of December 31, 1922, was made by the industrial commission in the July 1, 1923, communication to the subscribers of the fund:

## Assets:

|                                      |                      |
|--------------------------------------|----------------------|
| Invested in bonds.....               | \$38,710,749.18      |
| Bank deposits (time).....            | 598,267.88           |
| Bank deposits (demand).....          | 561,137.33           |
| Premium in course of collection..... | 2,169,522.45         |
| Accrued interest due fund.....       | 667,707.91           |
|                                      | <u>42,707,384.75</u> |

## Liabilities:

|  |                      |
|--|----------------------|
| Claim reserves.....                                  | 34,382,866.40        |
| Reserve to cover warrants issued but not cashed..... | 473,539.40           |
| Reserve for unearned premiums.....                   | 1,445,578.43         |
| Premium due over 90 days.....                        | 197,277.68           |
| Catastrophe reserve.....                             | 1,467,706.21         |
| 1923 dividend to be returned to employers.....       | 2,500,000.00         |
| Surplus.....   | 2,240,416.63         |
|  | <u>42,707,384.75</u> |

The above statement discloses an unencumbered surplus of \$2,240,416.63, which is "retained to meet fluctuations in the experience of the fund due to industrial changes."

*Receipts and disbursements for the year 1922.*

Receipts:

|   |                |
|---|----------------|
| Premium payments.....                   | \$7,817,557.25 |
| Interest on bonds and bank account..... | 2,182,494.00   |
| Returned on claim overpayments.....     | 1,740.94       |
|   | <hr/>          |
|   | 10,001,792.19  |
|   | <hr/>          |

Disbursements:

|  |               |
|--|---------------|
| Claim payments to injured workmen or dependents of deceased workmen..... | 6,833,855.39  |
| Refunds for overpayment of premiums.....                                 | 218,995.79    |
| Payments of accrued interest on bonds when purchased for investment..... | 189,553.86    |
| Cash balance invested in bonds and bank accounts.....                    | 2,759,387.15  |
|  | <hr/>         |
|  | 10,001,792.19 |
|  | <hr/>         |

The large interest receipts during the year—\$2,182,494—shows the considerable factor this item forms in the reduction of premiums to be paid by employers. This large interest-earning power of the fund is made possible due to the fact that the State and all counties, townships, municipalities, and school districts of the State are required to submit all bond issues to the commission for purchase before they can be offered for sale to the public. This permits the commission to obtain the highest interest-earning investments, over 90 per cent of the fund being invested in these bonds, making an average interest-earning power of five and one-half per cent.

The number of subscribers to the fund as of July 1, 1923, was 25,038, while the number of self-insured employers, i. e., those authorized to carry their own risk, was 428.

Utah.

THE report of the Industrial Commission of Utah for the two-year period ending June 30, 1922, contains the experience under the workmen's compensation act during this time. The following table shows the number of accidents reported to the commission during the two years ending on June 30, 1921 and 1922:

NUMBER OF ACCIDENTS REPORTED UNDER THE UTAH WORKMEN'S COMPENSATION ACT, TWO YEARS ENDING JUNE 30, 1921 AND 1922.

| Type of injury.                           | 1921   | 1922  |
|---|--------|-------|
| Death.....                                | 91     | 69    |
| Permanent total disability.....           | 3      | 1     |
| Permanent partial disability.....         | 177    | 120   |
| Temporary disability:                     |        |       |
| Over 4 weeks.....                         | 1,005  | 870   |
| Over 2 to 4 weeks.....                    | 1,042  | 881   |
| Over 3 days to 2 weeks <sup>1</sup> ..... | 2,295  | 2,021 |
| 3 days and under.....                     | 5,410  | 4,495 |
| Total.....                                | 10,023 | 8,457 |

<sup>1</sup> Utah has a 3-day waiting period.

The table following shows approximately the compensation benefits paid under the act during the two years ending June 30, 1921 and 1922. Some of the fatal and permanent disability cases had not been adjudicated at the time the data were compiled and consequently the figures given do not show the total cost incurred. Medical benefits in temporary disability cases are shown separately; in all other cases medical benefits are included with the compensation benefits.

APPROXIMATE COMPENSATION BENEFITS PAID UNDER UTAH COMPENSATION ACT, TWO YEARS ENDING JUNE 30, 1921 AND 1922.

| Type of benefits.                               | 1921                   | 1922                   |
|---|------------------------|------------------------|
| Death <sup>1</sup> .....                        | <sup>2</sup> \$261,243 | <sup>2</sup> \$200,224 |
| Permanent total disability <sup>1</sup> .....   | 36,000                 | 12,000                 |
| Permanent partial disability <sup>1</sup> ..... | 191,250                | 100,123                |
| Temporary disability .....                      | 202,159                | 175,213                |
| Medical (temporary disability) .....            | 129,161                | 130,895                |
| Total .....                                     | 819,813                | 618,455                |

<sup>1</sup> Includes medical cost.

<sup>2</sup> Cost to Jan. 1, 1923. Some cases still pending.

The following statement shows the number of employees, pay roll, and premium income during the two years ending June 30, 1921 and 1922:

|                                   | 1921.        | 1922.        |
|-----------------------------------|--------------|--------------|
| Average number of employees ..... | 59,396       | 58,464       |
| Pay roll .....                    | \$75,785,079 | \$56,555,403 |
| Premiums .....                    | 1,960,190    | 1,251,970    |

In addition to the foregoing the report contains detailed tables showing causes of accidents by extent of disability and compensation costs by industry classifications.

#### Manitoba.

THE report of the Workmen's Compensation Board of Manitoba for the year 1922 reviews the operations under the compensation act for the year 1922, and contains a statistical analysis of the accident experience for the year 1921. The volume of business of 1922 shows a large increase over 1921, accountable by the revival of many of the industries under the compensation act. During the year there were reported to the compensation board 9,676 accidents, which was an increase of 2,987, or 44.6 per cent, over 1921.

The following statement shows the number of accidents in 1921 by extent of disability:

|                                    | Number of accidents. |
|------------------------------------|----------------------|
| Death .....                        | 17                   |
| Permanent total disability .....   | 3                    |
| Permanent partial disability ..... | 157                  |
| Temporary total disability:        |                      |
| Over 1 week .....                  | 2,672                |
| 1 week and under .....             | 3,840                |
| Total .....                        | 6,689                |

The condition of the accident fund is shown in the two statements following, which show the actual compensation and administration costs for the year 1921 and the provisional balance sheet for 1922:

*Final statement showing the actual compensation and administration costs for the year 1921.*

|   |            |
|---|------------|
| Receipts:                               |            |
| Assessments .....                       | \$776, 605 |
| Interest and other receipts.....        | 22, 597    |
| Total.....                              | 799, 202   |
| Disbursements:                          |            |
| Compensation .....                      | \$243, 920 |
| Medical.....                            | 114, 118   |
| Reserve for pensions.....               | 274, 182   |
| Reserve for deferred payments.....      | 8, 999     |
| Administration.....                     | 57, 305    |
|   | 698, 524   |
| Credit balance transferred to 1922..... | 100, 678   |
| Total.....                              | 799, 202   |

*Provisional balance sheet, 1922.*

|  |            |
|--|------------|
| Receipts:  |            |
| Balance forward from 1921.....   | \$100, 678 |
| Assessments paid on estimated pay rolls .....                          | 540, 542   |
| Interest and other receipts.....                                       | 9, 352     |
| Estimate additional assessment account adjustment on actual pay roll.. | 207, 187   |
| Total.....   | 857, 759   |
| Disbursements:   |            |
| Compensation .....   | 166, 269   |
| Medical.....   | 105, 056   |
| Reserve for pensions.....  | 109, 231   |
| Reserve for deferred payments.....                                     | 760        |
| Administration.....  | 66, 001    |
| Estimate cost of continuing disability and unreported accidents.....   | 342, 026   |
|  | 789, 343   |
| Balance.....   | 68, 416    |
| Total.....   | 857, 759   |

The cost of administration for the year 1921 was 9.2 per cent of the cost of the accidents of that year, while the expense ratio to compensation costs for the year 1922 was also 9.2 per cent. The ratio of administration costs to assessments would be approximately 3 per cent lower.

The report contains detailed statistical tables classifying the accidents of 1921 by cause, industry, nature of injury, and extent of disability.

#### Ontario.

THE report for 1922 of the Ontario Workmen's Compensation Board contains a review of the operation of the compensation act for the year 1922 and a statistical analysis of the accidents for the year 1921. The total number of accidents reported during the year 1922 was 50,411, being an increase of 5,220 over 1921. The number of fatal accidents reported during 1922 was 418 as against 386 for 1921.



The number of accidents compensated by the board during the year 1922 was 42,509. Of these 331 were death cases, 25 permanent total disability cases, 1,862 permanent partial disability cases, 25,955 temporary disability cases, and 14,336 cases needing medical aid only.

The business and condition of the accident fund at the end of the year 1922 is shown in the following statement:

*Provisional statement of income and expenditure, schedule 1, Ontario accident fund, for the year 1922.*

|   |                   |
|---|-------------------|
| Income (actual and estimated):                          |                   |
| Assessments collected on estimated pay rolls.....       | \$3, 752, 725     |
| Interest, etc.....                                      | 222, 618          |
| Estimated adjustment on 1922 pay rolls.....             | 164, 516          |
| Carried forward from 1921.....                          | 1, 221, 205       |
|   | <hr/> 5, 361, 064 |
| Expenditures (actual and estimated):                    |                   |
| Compensation paid.....                                  | 1, 267, 310       |
| Reserved for pensions awarded.....                      | 956, 273          |
| Paid to safety associations.....                        | 69, 226           |
| Administration expenses.....                            | 97, 151           |
| Compensation deferred.....                              | 22, 235           |
| Medical aid.....  | 514, 861          |
| Disaster reserve.....                                   | 37, 743           |
| Compensation estimated for continuing disabilities..... | 741, 066          |
| Compensation estimated for outstanding accidents.....   | 597, 375          |
| Estimated for medical aid.....                          | 180, 296          |
|   | <hr/> 4, 483, 536 |
| Balance (provisional).....                              | 877, 528          |
|   | <hr/> 5, 361, 064 |

The foregoing statement applies only to schedule 1, i. e., to employers insured in the accident fund. In addition there was awarded by the board during the year 1922, \$1,582,975 in compensation in schedule 2 industries and for Crown cases. The schedule 2 industries include municipal corporations, railroads and other public utilities which are permitted under the act to carry their own liability and which correspond to self-insured employers in the United States. The amount awarded in schedule 2 industries does not include medical service.

The ratio of administration expenses charged schedule 1 employers in 1922 to the compensation and medical aid awarded during the year was 2.36 per cent as compared to 2.18 per cent in 1921; and the ratio to net assessments received during the year 2.52 per cent as compared with 1.78 per cent in 1921. The report contains detailed analyses of accidents by industry, cause, nature of injury, and extent of disability.

Accident frequency rates have been computed by the board, the rates in compensable accident cases per 100 full-time workers for the year 1921 being as follows: Temporary disability, 6.25; permanent disability, 0.60; death, 0.05; all accidents, 6.90.

## Chilean Legislation on Compensation for Industrial Accidents.<sup>1</sup>

THE present Chilean law relating to compensation for industrial accidents became effective on December 30, 1916. Although this law marks a definite step in the right direction and is beneficial to the laboring classes, it is defective in several important respects.

Dr. Moises Poblete Troncoso, professor of social economy in the University of Chile, in an article appearing in *La Nacion* (Santiago) of May 19, 1923, points out that the number of accidents is constantly increasing. He cites in proof of this statement that 1,341 accidents including 86 fatalities, occurred in 1915, and in 1918 the total reached 2,692, including 131 deaths, while in 1921 no less than 3,100 accidents, including 179 fatalities, were reported. The writer pointed out the following defects in the present law: (1) It rejects the theory of occupational risks; (2) it makes no provision for compensation for occupational diseases; (3) only the wife and offspring come within the provisions of the law, thus excluding ascendants (parents and grandparents) from benefits; (4) it does not require industrial establishments located in remote sections of the country to maintain a first-aid station in charge of a competent doctor.

A bill designed to remedy the principal defects of the present law was approved by the Chamber of Deputies on September 15, 1921, but it had not passed the Senate when the report on which this article is based was received.

An executive decree was issued on April 27, 1923, the purpose of which was to correct faults in that section of the law covering permanent partial disability. This decree includes the following table showing the percentages of total disability caused by specified permanent partial disability injuries:

PER CENT OF TOTAL DISABILITY CAUSED BY SPECIFIED INJURIES, AS ESTABLISHED BY DECREE IN CHILE.

| Injury.   | Per cent of total disability. | Injury.  | Per cent of total disability. |
|---|-------------------------------|--|-------------------------------|
| Total loss of either arm.....                     | 60                            | Total loss of second, third, or fourth finger..... | 9                             |
| Total loss of either hand.....                    | 60                            | Total loss of a muscle.....                        | 60                            |
| Total loss of either thumb.....                   | 30                            | Total loss of either leg.....                      | 60                            |
| Total loss of the right index finger.....         | 34                            | Total loss of either foot.....                     | 50                            |
| Total loss of the left index finger.....          | 18                            | Total loss of any one toe.....                     | 6                             |
| Total loss of the first joint of right thumb..... | 18                            | Blindness in one eye.....                          | 42                            |
| Total loss of the first joint of left thumb.....  | 9                             | Deafness in one ear.....                           | 12                            |
| Total loss of index finger.....                   | 13                            | Deafness in both ears.....                         | 42                            |

In computing the amount of compensation, 600 days' wages are taken as the basis, instead of 1,000 as formerly, to which are applied the disability percentages as given in the table. These amounts are then divided by 50, 60, or 70 per cent, the coefficients for maximum, medium, and minimum disability. (Loss of limbs is classified as maximum disability, loss of hearing or partial blindness as medium disability, and the loss of fingers or toes as minimum disability.)

<sup>1</sup> Report from American consul at Valparaiso, dated May 30, 1923.

## LABOR LAWS AND COURT DECISIONS.

### Labor Legislation of 1922.

THE Bureau of Labor Statistics has recently issued Bulletin No. 330, which contained a review and text of the labor legislation of 1922. Little was done in this field in 1922, it being an "off year" in which only 11 States, the Philippines, and the Federal Congress held regular sessions.

The employment of children was the subject most extensively legislated upon, though there were several important changes made in the organization of State departments of labor. In proportion to the number of laws on the subject already existing, there was significant activity with regard to the statutes fixing the number of men that should form train crews for the different classes of railway service. This action follows the trend apparent in 1921 of doing away with the laws fixing the absolute number of men and leaving the matter either specifically or by implication in the hands of the public service commission or to agreement between the parties involved.

Legislation in the field of hours of labor included the enactment by South Carolina of a law fixing a maximum of 55 hours per week in textile mills instead of 60 hours, and by Kentucky of one penalizing any employer using daylight saving or any other than standard time, unless adopted by State authorities.

The cooperative provisions for vocational rehabilitation offered by the Federal act of 1920 were adopted by practically all of the States which had not hitherto accepted.

Action was taken in South Carolina attempting to establish a compulsory arbitration system for street railway service, the award to be binding upon both parties if one of them requested arbitration.

The bulletin contains a cumulative index covering the entire series of bulletins on labor legislation beginning with Bulletin No. 148.

### Nature and Effect of Collective Agreements.

THE Supreme Judicial Court of Massachusetts recently had before it a group of cases in which the question involved was the nature and enforcement of agreements between employers and labor organizations. The cases were combined and disposed of at one time, but each one represents different parties and an independent set of circumstances. The entitling case, *Goyette v. C. V. Watson Co.*, was one in which the general business agent of the Shoe Workers' Protective Union sought an accounting and the enforcement of an agreement between the company named and the union under the terms of a contract entered into on July 19, 1920. This fixed the prices to be paid for different processes, and contained an agreement to employ only members of the union if available; if not, others than members might be employed subject to discharge when members of the union became available.

The term of this contract was one year, there being a verbal agreement that it should be continued until a new contract was consummated. No subsequent agreement was ever made, and the master to whom the subject was referred found that such compliance with the old contract as existed "was done as a matter of practice and not as a matter of agreement, and no implied contract has been established."

The company in January, 1922, closed its factory in Haverhill because of local labor troubles, and moved to Lowell where it opened a nonunion shop, but Goyette procured an interlocutory decree enjoining the company until April 15, 1922, from having or employing any nonunion shoe operatives in its factory if member employees were available, unless the union assented in writing to such hiring. The company therefore closed its factory and asked for a sufficient number of members of the union to operate the stitching room. As these could not be supplied, the union finally gave written permission to employ nonunion workers on permanent contracts where union members were not available. Being thus obliged to employ nonunion workers, the employer refused to permit the agent of the union to inspect the stitching room. After the injunction expired, the company moved its cutting room to Haverhill and employed its nonunion operatives without reference to the union's demands.

This was purely an action brought by the union to secure the enforcement of an alleged collective agreement, and since the claim for damages had been waived the only remedy by injunction would be the issuance of a mandate compelling the employer to employ only stitchers who were members of the union; but as the master had found that the union admitted its inability to furnish stitchers, the court held that such mandate should not issue. The question whether in any event specific performance of such a contract would be decreed under the circumstances was passed by as not necessary to be decided. (*Goyette v. C. V. Watson Co.*, 140 N. E. 285.)

The second case involved another organization, the Boot & Shoe Workers' Union, which had a contract with George Newburgh and others, doing business as the Triangle Shoe Co. This contained the usual provision as to employing only members of the union, and its repudiation was being sought by a rival union, the Shoe Workers' Protective Union, which desired to displace the plaintiff union and secure all work of that nature for itself. (*Lovely et al. v. Gill et al.*) The purpose of the rival union was admitted, and the action was between the two unions rather than against the employer, though the purpose of the action was, in form, to restrain the employer from violating and terminating its contract with the plaintiff union. The rival union admitted that while the contract of which it had knowledge was in force it undertook to ruin the union of plaintiffs by threats of intimidation, inducing, and coercing the company to repudiate its contract. Judge Braley, speaking for the court, declared that in so doing the rival union was not acting under an alleged right to strike to protect its own individual or economical interests, but was endeavoring to destroy the individual rights of fellow workmen unless they submitted to its dictation and control. Part of the contract was an agreement to furnish the company a

stamp or label indicating the fact that its shoes were made by the labor of members of the Boot & Shoe Workers' Union. It was contended that the contract as drawn created a monopoly and was also in violation of the Federal antitrust law. The judge held that as the matter stood there was no "indication of a Federal question being involved or that the contract is in restraint of trade." The union label is not a trading stamp; it is merely a mark "showing that products bearing the stamp are made by the manual labor of members of the plaintiff's union." Its use would not suppress competition nor tend to control the manufacture of goods.

So far as the agreement provided for the exclusive employment of union labor, the cases already decided are in favor of its validity as against the contention that it tends to foster a monopoly or violate the antitrust law; nor does the provision relating to arbitration of labor disputes render it invalid. The fact, that some members of the union left the employment of the company under the pressure of the rival union's activities and of the induced cooperation of the employer therewith, does not invalidate the proceedings in the present case even though such deserting members are included among the parties plaintiff. The contract was for the benefit of all members, and it was held that those desiring its benefits should not be deprived thereof by reason of the effectiveness of the activities of the rival union in procuring the abandonment of their work by some of the employees for the purpose of accomplishing an abrogation of the contract. The demurrer to the bill of complaint was therefore overruled.

The third case (*Knipe Brothers, Inc. v. White et al.*) was brought by the plaintiff, an employer, to enjoin members of both the unions named in the previous cases to prevent their interference with his business by threats, parades, picketing, or other acts of intimidation. This company, like the employer in the foregoing case, had a contract with the members of the Boot & Shoe Workers' Union for the use of the union stamp and the employment of only members of the union in good standing. This contract was observed for more than five years, but on October 4, 1922, it appeared that the employer had in his factory 180 members of the Boot & Shoe Workers' Union, and at the same time about 30 members of the Shoe Workers' Protective Union. In an effort to secure control of the situation the latter union decided to call out its members and picket the factory. These men had been employed because of the inability of the contracting union to furnish enough workers, and on the decision above noted they left the factory without notice, and some of them joined the picketers. The trial judge found this action to be "in pursuance of a conspiracy to induce by picketing those who are about to enter the plaintiff's employment to refrain from doing so, and to compel or induce those remaining in its employ to leave and join the Shoe Workers' Protective Union."

This picketing was continued for some months and led to the abandonment of work by about 35 of the plaintiff's employees who joined the antagonistic union and assisted in maintaining the pickets. The contract was found not to be one which established a monopoly, and, as its terms were known to the interfering picketers, there was a clear attempt to procure the violation of a contract, with a purpose



to compel the hiring of only members of the rival union and the exclusion of all others. "It has been repeatedly decided that the acts of the defendant were unjustifiable." This case was said to involve no question of specific performance, nor was any claim for damages pressed. The decree issued by the court below was affirmed, though the prohibition of intimidation was restricted by inserting the words, "as alleged in the bill." The Shoe Workers' Protective Union was therefore restrained from the use of threats, patrols, picketing, or acts of intimidation "as alleged in the bill"; also from interfering with employees or prospective employees and otherwise combining or conspiring to prevent entrance upon or continue in the previous employment, thus protecting the agreement made by the employer and the Boot and Shoe Workers' Union.

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### Use of Deposit to Guarantee Compensation Insurance Payments.

A NUMBER of the States require insurance companies wishing to write compensation business within their borders to deposit a stipulated sum as security for payments of awards under the law of the State. Texas is such a State, and required the Casualty Co. of America, a New York corporation, to deposit \$50,000 with the State treasurer as a prerequisite to writing compensation insurance in the State. This was in 1914; in 1915 the company surrendered its right to do business and withdrew from the State. It left in the hands of the treasurer, in State securities, the sum named, but failed to comply with the law of the State requiring the filing of a bond for the protection of its outstanding insurance contracts. The company became insolvent, and the New York State superintendent of insurance was in 1917 directed to take possession of its property and liquidate its business.

In the course of events the Industrial Accident Board of Texas awarded benefits to a claimant under the law of the State, the employer being insured with the company above named. Payments were made for a time, but ceased when the order of liquidation was entered. The claimants thereupon sought to secure the unpaid balance, with interest; the superintendent of insurance resisted, on the ground that the Texas courts had permitted the sale of the bonds deposited with the Texas treasurer as security, solely for the benefit of Texas claimants, instead of permitting the same to be used as assets for proportionate distribution to all claimants under the law. The Supreme Court of New York, appellate division, however, decided against the superintendent of insurance on the ground that the deposit with the Texas treasurer was to secure losses incurred within the State and was therefore not a part of the general assets. It was further held that full credence and respect must be given to the decision of the Texas tribunal in making the award of compensation, so that the effort to reopen the case and litigate it before the New York courts must fail. (In re Phillips, 200 N. Y. Supp. 639.)

## Federal Employers' Liability Acts, 1906, 1908.

THE brief history of the Federal employers' liability act of 1906 is generally known. That act undertook to provide the liability of common carriers generally for injuries to their employees, and was held unconstitutional because not restricted to interstate activities, of which Congress alone has supervision. The act of 1908 was passed with a safeguarding phraseology to cure the defects in the earlier law. However, the question has remained open as to the continuing validity of the act of 1906 as a regulation of the rights of common carriers in the territories and the District of Columbia, within which Congress can legislate generally, the point involved being a measure of difference between the effects of the two laws on the defense of assumed risks.

In a case recently decided by the Court of Appeals of the District of Columbia (*Washington Terminal Co. v. Sampson*, 289 Fed. 577), it was held that the act of 1908 was the latest expression of legislative will, and that "it is hardly to be supposed that it [Congress] intended that the two acts providing for relief in the same class of cases, one allowing the defense of assumption of risk and the other not, should concurrently be in force and effect." This decision will probably serve to set at rest any remaining question as to the continuance in effect of the earlier law in the District or elsewhere, a question that probably owes its vitality to a decision by the Supreme Court of the United States (*El Paso & N. E. R. Co. v. Gutierrez*, 215 U. S. 87, 30 Sup. Ct. 21). This case was of a workman injured in New Mexico, when it was a Territory, subsequent to the enactment of 1906 and prior to that of 1908. The decision of the court holding the law of 1906 valid in New Mexico in spite of its invalidity in the attempted application to interstate commerce in no wise considered the relation of the earlier law to the later enactment, so that no conclusion could be drawn therefrom as to the continued effectiveness of the earlier law subsequent to the passage of the act of 1908.

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Liability of Employer Under Illinois Occupational Diseases Act.

THE Illinois Legislature of 1911 passed a law, the intent of which was to secure the proper safeguarding of operations in which employees were exposed to poisonous fumes and gases likely to cause occupational diseases. Failure to comply with the prescribed requirements entailed specific liability for any damages accruing to any workman by reason of the violation of the law. A workman, one Atwood, sued under this statute, charging a failure on the part of the employer to furnish an adequate and properly constructed respirator, so that he inhaled lead dust and incurred lead poisoning therefrom. Judgment was in the workman's favor, and the employer appealed, claiming that the act was unconstitutional, and further that the State legislature in 1921 passed an amendatory provision bringing employees who sustained an occupational disease within the scope of the workmen's compensation act of the State. The employee was interested in maintaining the present action, which involved a judgment for \$7,000 as against the maximum

allowance of \$3,500 under the compensation law. Furthermore, the workmen's compensation act prescribed a procedure which had not been observed, so that if it should be decided that the case fell under that act, all right of recovery would be lost.

The United States Circuit Court of Appeals (*Hoyt Metal Co. v. Atwood*, 289 Fed. 453) ruled that the act of 1911 granted a right of action which became a vested property right; and as the injury and the entry of judgment both preceded the enactment of the amendment providing for compensation administration, this subsequent action of the legislature could not deprive the injured man of his rights as declared before the enactment of the law. In other words, the amendment was prospective only and not retroactive.

The question of constitutionality was likewise decided in favor of the plaintiff, against the contention that the law as it stood granted unequal rights to employees of the same employer in the same occupation. If one incurred an occupational disease he might sue and recover a judgment such as a jury might agree upon; if his fellow worker received an accidental injury not classified as an occupational disease, he would have no right to a trial at law, but must submit his case to a compensation commissioner and accept an award limited in amount by the statute. The contention that such classification was not "just, reasonable, or fair" was rejected by the court without discussion, saying that it was "unnecessary; the decisions are to the contrary." The judgment was therefore affirmed.

It will be noted that the foregoing decision considered the effect of the amendment of 1921 to the occupational diseases act, bringing these diseases under the terms of the compensation law; also that this act was held unconstitutional by the supreme court of the State on account of the failure of the legislature to comply with certain technical forms in making the amendment. Neither decision is affected by the other, the questions involved being entirely independent. Reference may here be made to the legislative action in 1923 making occupational diseases compensable as accidents in Illinois, the remedy being exclusive unless the injury is found to be due to a willful violation of the safety provisions of the occupational diseases act.

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### Law Regulating Apprenticeship Agreements in Finland.<sup>1</sup>

**F**INLAND, on April 28, 1923, passed a law effective January 1, 1924, regulating apprenticeship agreements. Chapter I of the law defines the parties to which the law is applicable, provides for the appointment of apprenticeship boards, and contains general provisions governing apprenticeship agreements and rules for recording such agreements.

According to the law, an apprentice is understood to be a person under 18 years of age who under some other master than his father or mother has secured employment in order to get instruction in an occupation where as a rule an apprenticeship of at least two years is required.

In cases where a commune employment agency has been established in accordance with the law of November 2, 1917, the employ-

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<sup>1</sup> Finland. Socialministeriet. Social Tidskrift No. 5, 1923. Helsingfors, 1923.

ment directorate is to function as an apprenticeship board until the communal authorities find that an apprenticeship board is required, when they are to appoint a chairman and vice chairman, four members (two employers and two employees), and an equal number of substitutes.

Within 14 days after the end of a trial period a written agreement with an apprentice must be drawn up in accordance with regulations fixed by the Bureau of Commerce and Industry (*Handels- och Industristyrelsen*).

The apprenticeship term must be as long as is considered necessary in the occupation, but must not exceed four years. The term may be shortened when the apprentice receives special instruction or shows unusual ability.

The first three months constitute a probationary period, during which the agreement may be terminated at any time by either party by giving seven days' notice.

Minors 15 but under 18 years old, who support themselves by their own work, may themselves conclude agreements. An agreement entered into by a guardian for a minor may not without the minor's written consent be extended beyond the time when the minor becomes of age.

The apprenticeship board must record all agreements approved by it in accordance with regulations fixed by the Bureau of Commerce and Industry.

According to Chapter II of the law the apprentice is to be given such instruction as will enable him to pass the required test. If there is a trade school in the locality the apprentice is to be permitted to attend it, and for the first three years the apprentice is to be paid his full wage for time spent at school, provided that such time does not exceed one day per week.

The apprentice must not be made to do work injurious to his health or which is not part of the work of the occupation he is learning.

Chapter III deals with the termination of apprenticeship agreements, and Chapter IV with penalties in case of violations of the law.

If the master neglects to instruct the apprentice he is warned, and if the warning is not heeded he may be denied the right to employ new apprentices for a period not to exceed three years. If the apprentice neglects his school duties and does not heed warning given, his apprenticeship may be extended not to exceed three months.

The law is enforced by the factory inspection service and the apprenticeship boards.

Specified sections of the law of June 1, 1922, on work agreements, apply to apprenticeship agreements.

In case of strike or lockout at the establishment where the apprentice is employed the agreement may be terminated. If not terminated, the apprenticeship period is prolonged for a period equal to that in which the apprentice was unemployed because of the work stoppage.

At the end of the apprenticeship term the apprentice is to give proof of his skill in his occupation before a committee of which the chairman of the apprenticeship board is chairman. If his work is found satisfactory, he is to receive a diploma.

## STRIKES AND LOCKOUTS.

### Labor Disputes in Sweden, 1922.<sup>1</sup>

ACCORDING to the report of the Swedish Labor Bureau on labor disputes in Sweden in 1922, there were 392 stoppages of work, 354 strikes, 11 lockouts, and 27 so-called "mixed" disputes, affecting 1,260 employers and 75,679 employees, with a loss of 2,674,580 workdays and an estimated loss of workers' wages of about 23,000,000 kronor (\$6,164,000, par).

The number of stoppages was greater than for 1921 and for any year from 1903 to 1916, inclusive, but less than for any year from 1917 to 1920, inclusive. The extent of the strikes is also greater as regards the number of workers involved than for the previous year, and only in 1909, the year of the general strike, and in 1919 and 1920 was this number exceeded.

The greatest number of stoppages of work, 92, or 23 per cent, occurred in the building industry, the wood goods (*trävaru*) industry following with 64, or 16 per cent, and the metal industry with 53, or 14 per cent.

Wage questions caused most of the labor disputes, 78 per cent in 1922 as against an average of 77 per cent in the period 1912 to 1921. Thirty per cent of the disputes lasted from one to three months, 38 per cent ended within a month, and 23 per cent lasted not more than a week. Of the workers, 52 per cent were involved in disputes lasting from one to three months, while 21 per cent were involved in those lasting over three months.

Of the 392 disputes, 82 were settled in favor of the employers, 91 in favor of the employees, 199 resulted in a compromise, and in 20 disputes the outcome was unknown or not determined.

Disputes settled in favor of the employer affected on an average 129 workers each, and those settled on the employees' terms averaged 54 workers each. In those disputes in which the workers were organized, 24 per cent were settled in accordance with the employees' demands and 17 per cent on the employers' terms, while for the unorganized workers the corresponding figures were 13 per cent and 67 per cent. In disputes with organized employers 23 per cent were settled on the employers' terms and 10 per cent in accordance with the employees' demands. The unorganized employers in 37 per cent of the disputes granted the employees' demands and in 18 per cent of such cases the employees complied with their terms.

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<sup>1</sup> Sweden. Socialstyrelsen. Arbetsinställelser i Sverige år 1922. Stockholm, 1923.



## CONCILIATION AND ARBITRATION.

### Conciliation Work of the Department of Labor in August, 1923.

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION.

THE Secretary of Labor, through the Division of Conciliation, exercised his good offices in connection with 46 labor disputes during August, 1923. These disputes affected a total of 46,425 employees. The following table shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workmen directly and indirectly affected:

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS DIVISION OF CONCILIATION, AUGUST, 1923.

| Company or industry, and location.                     | Nature of controversy. | Craft concerned.   | Cause of dispute.                                   | Present status.                |
|--|------------------------|--------------------|---|--------------------------------|
| Jno. H. Reynolds Tobacco Co., Jersey City, N. J.       | Strike.....            | Cigarette makers.. | Asked \$2 a week increase.                          | Adjusted.                      |
| Slate and tile industry, St. Louis, Mo.                | .....do.....           | Roofers.....       | Working conditions.                                 | Pending.                       |
| Plasterers, Evansville, Ind.....                       | .....do.....           | Plasterers.....    | Asked 25 cents an hour increase.                    | Adjusted.                      |
| Sarfstein Co., New York City.....                      | .....do.....           | Clothing workers.. | (1).....  | Pending.                       |
| Micosia Milk Co., New York City....                    | .....do.....           | Drivers.....       | Asked wage increase.                                | Unclassified.                  |
| Merchant Truck Assn., New York City.                   | Threatened strike.     | Loaders.....       | Asked 1½ cents increase per 100 pounds.             | Pending.                       |
| Marble workers, St. Louis, Mo.....                     | Strike.....            | Marble workers...  | Asked 20 cents per hour increase and recognition.   | Unable to adjust.              |
| Fort Pitt mine, Wheeling, W. Va....                    | .....do.....           | Miners.....        | Pay for hard drilling.                              | Adjusted.                      |
| Rail and River mine, Big Run, W. Va.                   | .....do.....           | .....do.....       | Fine clause in contract.                            | Do.                            |
| Ashworth-Odell Worsted Mill, Salamanca, N. Y.          | .....do.....           | Textile workers... | Increase of hours....                               | Do.                            |
| Dressmakers, Chicago, Ill.....                         | Threatened strike.     | Dressmakers.....   | Contracts, wages, etc.                              | Pending.                       |
| Shapiro & Bichelman Co., Boston, Mass.                 | Strike.....            | Raincoat makers..  | Violation of agreement.                             | Adjusted.                      |
| Webb mine, Bellaire, Ohio.....                         | .....do.....           | Miners.....        | Working conditions.                                 | Pending.                       |
| American Zinc Co., Taylor Springs, Ill.                | .....do.....           | Zinc miners.....   | Recognition M. M. & S. Union.                       | Do. <sup>2</sup>               |
| Pattern makers, Philadelphia, Pa...                    | Controversy.           | Pattern makers...  | (1).....  | Do.                            |
| Street cars, Lima, Ohio.....                           | Strike.....            | Traction workers.. | Renewal of agreement; wages.                        | Do. <sup>3</sup>               |
| Universal Gypsum Co., Fort Dodge, Iowa.                | Threatened strike.     | Employees.....     | Discrimination; for union affiliation.              | Adjusted.                      |
| U.S. Veteran Hospital, Chelsea, N. Y.                  | .....do.....           | Building trades... | Working conditions.                                 | Do.                            |
| Three plants National Fireproofing Co., Keasbey, N. J. | Strike.....            | Employees.....     | Increase asked.....                                 | Do.                            |
| Window washers, Chicago, Ill.....                      | .....do.....           | Cleaners.....      | Asked 20 cents per hour increase (80 cents to \$1). | Do.                            |
| Bodwell Wood Heel Co., Salem Center, N. H.             | .....do.....           | Shoe workers.....  | Wages; unionization                                 | Pending.                       |
| Farrell Foundry Co., Ansonia, Conn.                    | .....do.....           | Molders.....       | Nonunion labor.....                                 | Unable to adjust. <sup>4</sup> |

<sup>1</sup> Not reported.

<sup>2</sup> National guard in attendance.

<sup>3</sup> Company refused recognition and agreement.

<sup>4</sup> Nonunion labor retained.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR  
THROUGH ITS DIVISION OF CONCILIATION, AUGUST, 1923—Continued.

| Company or industry, and location.                    | Nature of controversy. | Craft concerned.    | Cause of dispute.  | Present status.            |
|---|------------------------|---------------------|--|----------------------------|
| Inside ironworkers, New York City ..                  | Strike.....            | Ironworkers .....   | 44-hour week; 10 per cent increase asked.                        | Pending. <sup>5</sup>      |
| Furniture workers, New York City ..                   | Threatened strike.     | Furniture workers   | Movement to unionize.  | Do.                        |
| Central R. R. of New Jersey.....                      | Strike.....            | Shoppers            | Strike of 1922.....  | Adjusted.                  |
| Three Star Clothing Co., New York City                | Controversy.           | Clothing workers.   | Working agreement.   | Pending.                   |
| Nubie Clothing Mfg. Co., Brooklyn, N. Y.              | .....do.....           | .....do.....        | Wages and conditions.  | Unclassified. <sup>6</sup> |
| Bossie Coal Co., Evansville, Ind....                  | Strike.....            | Coal miners.....    | Wages; discharge of 1 miner.                                     | Adjusted.                  |
| Rollins Hosiery Mills, Des Moines, Iowa.              | .....do.....           | Textile workers..   | Working conditions.  | Pending.                   |
| Women's clothing, Toledo, Ohio....                    | Controversy.           | Women's clothing    | (1).....   | Do.                        |
| Shoe industry, Haverhill and Boston, Mass.            | Strike.....            | Out-sole workers..  | Wage increase of 12½ per cent; union shop.                       | Do.                        |
| Mogul Checker Cabs, New York City.                    | .....do.....           | Taxi drivers.....   | Asked 40 per cent of fares.                                      | Adjusted.                  |
| Bath robes, New York City .....                       | .....do.....           | Garment workers.    | 44-hour week; \$4 per week; 15 per cent increase for piece-work. | Do.                        |
| Grocery and butcher clerks, Chicago, Ill.             | Threatened strike.     | Clerks.....         | Asked \$40 per week, recognition, and agreement.                 | Pending.                   |
| Standard Raincoat Co., Boston, Mass.                  | Strike.....            | Garment workers     | Agreement, etc.....  | Adjusted.                  |
| Republic Iron & Steel Co., Youngstown, Ohio.          | Controversy.           | Pipe-mill workers.  | Hours and wages....  | Do.                        |
| Gordon Baking Co., Chicago, Ill.....                  | .....do.....           | Engineers.....      | Increase in wages....  | Pending.                   |
| Sprinkler fitters, Chicago, Ill.....                  | Lockout.....           | Sprinkler fitters.. | Number of helpers required.                                      | Do.                        |
| Shoppers, Corbin, Ky. (Louisville & Nashville R. R.). | Strike.....            | Shoppers.....       | General strike of 1922   | Adjusted.                  |
| Shuder & Epstein, New York City..                     | Controversy.           | Shirt makers.....   | To enforce wage award.   | Unclassified.              |
| Baking, Pittsburgh, Pa.....                           | Strike.....            | Bakers.....         | (1).....   | Pending.                   |
| 540 motion-picture houses, New York City.             | Controversy.           | Operators.....      | Wage increase.....   | Adjusted.                  |
| Atlantic & Pacific Tea Co., Jersey City, N. J.        | Strike.....            | Employees.....      | (1).....   | Plant closed.              |
| Hudson Coal Co., Miners Mills, Pa..                   | .....do.....           | Miners.....         | Breaker working overtime.  | Pending.                   |
| Shell oil workers, Calif.....                         | Controversy.           | Oil workers.....    | Wage controversy...  | Adjusted.                  |
| Furriers, Cleveland, Ohio.....                        | Strike.....            | Furriers.....       | Wages; hours; recognition.                                       | Pending.                   |

| Company or industry, and location.               | Terms of settlement.                            | Duration.       |                 | Men involved. |             |
|--|---|-----------------|-----------------|---------------|-------------|
|  |   | Beginning.      | Ending.         | Directly.     | Indirectly. |
| Jno. H. Reynolds Tobacco Co., Jersey City, N. J. | Compromised on \$1 a week....                   | 1923.<br>Aug. 7 | 1923.<br>Aug. 8 | 200           | 700         |
| Slate and tile industry, St. Louis, Mo.          | .....   | (1)             | .....           | (1)           | .....       |
| Plasterers, Evansville, Ind.....                 | 25 cents an hour increase allowed.              | July 18         | July 21         | 16            | .....       |
| Sarfstein Co., New York City.....                | .....   | (1)             | .....           | (1)           | .....       |
| Micosia Milk Co., New York City....              | Increase allowed before commissioner's arrival. | July 11         | July 14         | 8             | 4           |
| Merchant Truck Assn., New York City.             | .....   | (1)             | .....           | 1,200         | .....       |
| Marble workers, St. Louis, Mo.....               | Conferences refused by companies.               | July 16         | .....           | 110           | 30          |
| Fort Pitt mine, Wheeling, W. Va....              | Returned to work on same conditions.            | Aug. 1          | Aug. 4          | 200           | .....       |
| Rail and River mine, Big Run, W. Va.             | Return; adjust later.....                       | July 23         | Aug. 6          | 550           | .....       |
| Ashworth-Odell Worsted Mill, Salamanca, N. Y.    | Return on company's terms..                     | (1)             | .....do.....    | 60            | 240         |
| Dressmakers, Chicago, Ill.....                   | Injunctions pending.....                        | July 29         | .....           | 5,000         | .....       |
| Shapiro & Bichelman Co., Boston, Mass.           | Company conceded demands.                       | July 15         | Aug. 3          | 50            | .....       |

<sup>1</sup> Not reported.<sup>5</sup> 600 men have been employed elsewhere.<sup>6</sup> Business sold.

LABOR DISPUTES HANDLED BY THE UNITED STATES DEPARTMENT OF LABOR THROUGH ITS DIVISION OF CONCILIATION, AUGUST, 1923—Concluded.

| Company or industry, and location.                        | Terms of settlement.   | Duration.       |         | Men involved.  |                  |
|---|--|-----------------|---------|----------------|------------------|
|   |  | Begin-<br>ning. | Ending. | Di-<br>rectly. | Indi-<br>rectly. |
|   |  | 1923.           | 1923.   |                |                  |
| Webb mine, Bellaire, Ohio.....                            |  | Aug. 1          |         | 600            |                  |
| American Zinc Co., Taylor Springs,<br>Ill.                |  | Aug. 8          |         | 300            |                  |
| Pattern makers, Philadelphia, Pa.                         |  | (1)             |         | (1)            |                  |
| Street cars, Lima, Ohio.....                              |  | (1)             |         | 42             |                  |
| Universal Gypsum Co., Fort Dodge,<br>Iowa.                | Averted; men not reinstated.   | Aug. 10         | Aug. 15 | 6              | 70               |
| U. S. Veteran Hospital, Chelsea, N. Y.                    | Agreement concluded.....   | (1)             | (1)     | (1)            |                  |
| Three plants National Fireproofing<br>Co., Keasbey, N. J. | Return at former wage.....   | July 28         | July 31 | 200            | 250              |
| Window washers, Chicago, Ill.....                         | 20 per cent increase allowed;<br>44-hour week.                       | Aug. 4          | Aug. 20 | 300            |                  |
| Bodwell Wood Heel Co., Salem Cen-<br>ter, N. H.           |  | (1)             |         | 6              | 25               |
| Farrell Foundry Co., Ansonia, Conn.                       |  | 1922.           |         |                |                  |
| Inside ironworkers, New York City                         |  | Apr. 7          |         |                |                  |
| Furniture workers, New York City                          |  | (1)             |         | 900            |                  |
| Central R. R. of New Jersey.....                          | Vote to declare strike off.....                                      | Apr. 1          | Aug. 18 | 4,000          |                  |
| Three Star Clothing Co., New York<br>City.                |  | (1)             |         |                |                  |
| Nubile Clothing Mfg. Co., Brooklyn,<br>N. Y.              |  | 1923.           |         |                |                  |
| Bossie Coal Co., Evansville, Ind.....                     | Miner reinstated; engineer<br>paid.                                  | July 30         |         | 40             | 5                |
| Rollins Hosiery Mills, Des Moines,<br>Iowa.               |  | June 25         | Aug. 29 | 275            |                  |
| Women's clothing, Toledo, Ohio.....                       |  | (1)             |         | (1)            |                  |
| Shoe industry, Haverhill and Boston,<br>Mass.             |  | (1)             |         | (1)            |                  |
| Mogul Checker Cabs, New York City.                        |  | Aug. 1          |         | 700            |                  |
| Bath robes, New York City.....                            | Accept small increase; 33 per<br>cent.                               | Aug. 20         | Aug. 22 | 1,500          |                  |
|   | 44-hour week; \$3 a week; 10<br>per cent increase on piece-<br>work. | do              | Sept. 6 | 100            |                  |
| Grocery and butcher clerks, Chicago,<br>Ill.              | Strike date, Sept. 1, post-<br>poned.                                | (1)             |         | 12,000         | 2,000            |
| Standard Raincoat Co., Boston, Mass.                      | Piecework eliminated; \$4 in-<br>crease.                             | Aug. 18         | Aug. 29 | 20             |                  |
| Republic Iron & Steel Co., Youngs-<br>town, Ohio.         | Returned to work on former<br>conditions.                            | (1)             | Aug. 26 | (1)            |                  |
| Gordon Baking Co., Chicago, Ill.....                      |  | June 19         |         | 3              | 300              |
| Sprinkler fitters, Chicago, Ill.....                      |  | do              |         | 70             |                  |
| Shoppers, Corbin, Ky. (Louisville<br>& Nashville R. R.).  | Men to be reinstated.....  | Apr. 1          | Aug. 24 | 310            |                  |
| Shuder & Epstein, New York City..                         | Settled before commissioner's<br>arrival.                            | Aug. 7          | Aug. 21 | 130            |                  |
| Baking, Pittsburgh, Pa.....                               |  | (1)             |         | (1)            |                  |
| 540 motion-picture houses, New York<br>City.              | Increase of 7½ to 15 per cent..                                      | Aug. 25         | Aug. 31 | 900            | 3,000            |
| Atlantic & Pacific Tea Co., Jersey<br>City, N. J.         |  | (1)             |         | 300            | 3,500            |
| Hudson Coal Co., Miners Mills, Pa...                      | Status quo pending general<br>situation.                             | (1)             |         | 1,600          |                  |
| Shell oil workers, Calif.....                             | Increase of 5 per cent allowed;<br>agreement concluded.              | Mar. 1          | Aug. 31 | 4,000          | 500              |
| Furriers, Cleveland, Ohio.....                            |  | July 10         |         | 30             | 75               |
| Total.....  |  |                 |         | 35,726         | 10,699           |

<sup>1</sup> Not reported.

On September 1, 1923, there were 43 strikes before the department for settlement and in addition 16 controversies which had not reached the strike stage. Total number of cases pending, 59.

## COOPERATION.

### Comparative Study of Cooperation in Various Countries.<sup>1</sup>

THE October, 1920, issue of the MONTHLY LABOR REVIEW contained (pp. 153-167) comparative statistics showing the development of the cooperative movement, especially that of consumers, in certain countries for which information was available. In the present article an attempt has been made to bring that information up to 1922, or, where this was not possible, up to the latest year reported. As was explained in the previous article, comparable figures are difficult to secure. For some of the most important countries, cooperatively speaking, there are few published statistics, while other countries publish very complete figures each year. It will be noted, if reference is made to the previous article, that certain countries included in that study are omitted from the present one; this is due either to the lack of up-to-date information or to peculiar circumstances in the country which render authoritative statements as to the cooperative movement impossible. Italy is one conspicuous example. In that country a very large proportion of the cooperative societies have been destroyed by the Fascisti; indeed, the Cooperative Wholesale Society has been forced to dissolve because of the destruction of many of its member societies and the condition of those remaining.

Certain new countries are added to the tables, as will be noticed, so as to make the study as inclusive as possible.

#### Development of Various Types of Cooperative Societies.

IN THE table below are shown for 19 countries the number and per cent of cooperative societies of each type in the latest year for which figures are available.

<sup>1</sup> The data on which this article is based are from International Cooperative Bulletin (London), issues of February-September, 1923; People's Yearbook, 1923; Industrial and Labor Information (Geneva), issues of Mar. 23, Apr. 13, May 4 and 18, June 1 and 15, and Aug. 3, 1923, and Russian Supplement of Mar. 2, 1923; The Producer (Manchester, England), issues of March-August, 1923; Fédération Nationale des Coopératives de Consommation, Annuaire de la Coopération, 1922, Paris; Austria, Bundesamt für Statistik, Statistisches Handbuch für die Republik Oesterreich, 1923; Kooperatören (Stockholm), issues Nos. 5 and 18, 1922, and 9-10, 1923; La Coopération Belge (Brussels), July 7, 1923; Cooperation (New York), July, 1923; Agricultural Cooperation (Washington, D. C.), Aug. 27, 1923; International Review of Agricultural Economics (Rome), January-March, 1923; Japan, Department of Finance, Twenty-second Financial and Economic Annual, 1922; L'Information Sociale (Paris), May 24, 1923; Kooperatören (Christiania), No. 5, 1923; Schweiz. Konsum-verein (Basel), Apr. 7, 1923; Verband Schweiz. Konsumvereine, Rapports et Comptes, et concernant l'activités des organes de l'Union en 1922; La Coopération (Basel), issues of Aug. 24, 1922, and July 19 and Aug. 2, 1923; India, Department of Statistics, Statements showing progress of the cooperative movement in India during the year 1920-21; Quebec, Statistical yearbook, 1922; Massachusetts, Commissioner of Banks, report for 1921, Pt. II; New York Superintendent of Banks, report for 1920; United States Bureau of Labor Statistics Buls. No. 313 and 314; Great Britain, Registry of Friendly Societies, summary of report for 1921; France, Bulletin du Ministère du Travail, April-June, 1922; Secrétariat des Paysans Suisses, Rapport No. 67: La revision de la législation fédérale relative aux sociétés coopératives, Brugg, 1922; New York Times, Sept. 9, 1923; South Australia, Statistical Register, 1920-21; New South Wales, Report of registrar of friendly societies, etc., for twelve months ending June 30, 1922.

## NUMBER AND PER CENT OF COOPERATIVE SOCIETIES OF SPECIFIED TYPES, BY COUNTRY.

*Number.*

| Country.             | Year. | Bank-<br>ing and<br>credit<br>so-<br>cieties. | Con-<br>sumers'<br>so-<br>cieties<br>(all<br>types). | Agri-<br>cultural<br>so-<br>cieties. <sup>1</sup> | Insur-<br>ance<br>so-<br>cieties. | Work-<br>ers' pro-<br>ductive<br>so-<br>cieties. | Other<br>so-<br>cieties. | Total.             |
|----------------------|-------|---|--|---|-----------------------------------|--|--------------------------|--------------------|
| Argentina.....       | 1921  | 29  | 47   | 160   | 6                                 | .....  | 21                       | 263                |
| Austria.....         | 1921  | 2,000   | 536  | 1,068   | .....                             | 764  | 28                       | 4,396              |
| Bulgaria.....        | 1922  | 631   | 15   | 11  | ( <sup>2</sup> )                  | ( <sup>2</sup> )                                 | ( <sup>2</sup> )         | 657                |
| Czechoslovakia.....  | 1920  | ( <sup>2</sup> )                              | 2,650  | 1,796   | ( <sup>2</sup> )                  | 1,551  | ( <sup>2</sup> )         | 5,997              |
| Estonia.....         | 1922  | 107   | 273  | <sup>3</sup> 920                                  | <sup>3</sup> 500                  | .....  | .....                    | <sup>3</sup> 1,800 |
| Finland.....         | 1922  | 949   | 790  | 1,201   | .....                             | .....  | 794                      | 3,734              |
| France.....          | 1921  | ( <sup>2</sup> )                              | 4,790  | 1,100   | ( <sup>2</sup> )                  | <sup>4</sup> 529                                 | ( <sup>2</sup> )         | 6,419              |
| Germany.....         | 1922  | 20,931  | 5,740  | 16,580  | .....                             | 4,377  | .....                    | 47,623             |
| India.....           | 1921  | .....   | .....  | 42,582  | .....                             | .....  | 3,322                    | 45,904             |
| Japan.....           | 1921  | 2,535   | 816  | 483   | .....                             | 282  | .....                    | 13,770             |
| Latvia.....          | 1922  | 171   | 563  | 530   | 122                               | .....  | 705                      | 2,091              |
| Lithuania.....       | 1922  | 121   | 396  | 56  | .....                             | 41   | .....                    | 584                |
| New South Wales..... | 1921  | .....   | 64   | 12  | .....                             | .....  | 3                        | 79                 |
| Poland.....          | 1922  | 5,338   | 4,196  | 1,288   | .....                             | .....  | 1,436                    | 12,258             |
| Rumania.....         | 1922  | 4,480   | 1,802  | 914   | .....                             | 408  | 63                       | 7,667              |
| Russia.....          | 1922  | 600   | 29,370   | 17,000  | .....                             | 19,132   | .....                    | 66,102             |
| Switzerland.....     | 1920  | 266   | 493  | 7,274   | 1,359                             | ( <sup>2</sup> )                                 | ( <sup>2</sup> )         | 9,392              |
| United Kingdom.....  | 1921  | ( <sup>2</sup> )                              | 1,489  | 1,201   | ( <sup>2</sup> )                  | 102  | ( <sup>2</sup> )         | 2,792              |
| United States.....   | 1922  | <sup>5</sup> 536                              | <sup>6</sup> 3,000                                   | <sup>6</sup> 15,000                               | ( <sup>2</sup> )                  | ( <sup>2</sup> )                                 | ( <sup>2</sup> )         | 18,536             |

*Per cent.*

|                     |      |                  |       |      |                  |                  |                  |       |
|---------------------|------|------------------|-------|------|------------------|------------------|------------------|-------|
| Argentina.....      | 1921 | 11.0             | 17.9  | 60.8 | 2.3              | .....            | 7.9              | 100.0 |
| Austria.....        | 1921 | 45.5             | 12.2  | 24.3 | .....            | 17.4             | .6               | 100.0 |
| Bulgaria.....       | 1922 | 96.0             | 2.3   | 1.7  | ( <sup>2</sup> ) | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 100.0 |
| Czechoslovakia..... | 1920 | ( <sup>2</sup> ) | 44.2  | 30.0 | ( <sup>2</sup> ) | 25.8             | ( <sup>2</sup> ) | 100.0 |
| Estonia.....        | 1922 | 5.9              | 15.2  | 51.1 | 27.8             | .....            | .....            | 100.0 |
| Finland.....        | 1922 | 25.4             | 21.2  | 32.2 | .....            | .....            | 21.2             | 100.0 |
| France.....         | 1921 | ( <sup>2</sup> ) | 74.6  | 17.1 | ( <sup>2</sup> ) | 8.2              | ( <sup>2</sup> ) | 100.0 |
| Germany.....        | 1922 | 43.9             | 12.1  | 34.8 | .....            | 9.2              | .....            | 100.0 |
| India.....          | 1921 | .....            | ..... | 92.8 | .....            | .....            | 7.2              | 100.0 |
| Japan.....          | 1921 | 18.4             | 5.8   | 3.5  | .....            | 2.0              | 70.1             | 100.0 |
| Latvia.....         | 1922 | 8.2              | 26.9  | 25.3 | 5.8              | .....            | 34.0             | 100.0 |
| Lithuania.....      | 1922 | 20.7             | 62.7  | 9.6  | .....            | 7.0              | .....            | 100.0 |
| Poland.....         | 1922 | 43.5             | 34.2  | 10.5 | .....            | .....            | 11.7             | 100.0 |
| Rumania.....        | 1922 | 58.4             | 23.5  | 11.9 | .....            | 5.3              | .8               | 100.0 |
| Russia.....         | 1922 | .9               | 44.4  | 25.7 | .....            | 28.9             | .....            | 100.0 |
| Switzerland.....    | 1920 | 2.8              | 5.2   | 77.4 | 14.5             | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 100.0 |
| United Kingdom..... | 1921 | ( <sup>2</sup> ) | 53.3  | 43.0 | ( <sup>2</sup> ) | 3.7              | ( <sup>2</sup> ) | 100.0 |
| United States.....  | 1922 | 2.9              | 16.2  | 80.9 | ( <sup>2</sup> ) | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 100.0 |

<sup>1</sup> Including machinery societies, peat societies, marketing societies, forestry societies, dairies, stock-breeding societies, etc.

<sup>2</sup> Not reported.

<sup>3</sup> Approximate.

<sup>4</sup> 1920.

<sup>5</sup> 1921; includes 23 labor banks only partially cooperative.

<sup>6</sup> Estimated.

There are also reported to be some 16,625 cooperative societies in Ukraina, but no information is available as to the number of societies of each type. The 1920-21 Statistical Register of New South Wales shows that in 1919 there were in that State 5 societies of all types, with a combined membership of 15,678.

As far as is shown by the admittedly unsatisfactory figures given in the above table, the cooperative movement is predominantly agricultural in Argentina, Estonia, India, Switzerland, and the United States. Credit societies predominate in Austria, Bulgaria, and Rumania, while in Czechoslovakia, France, Lithuania, and Russia the consumers' movement is the most developed. In Latvia the consumers' and agricultural societies are about equally important; while

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in Finland credit, consumers', and agricultural societies are fairly equal in numbers. In Great Britain, though agricultural societies are almost equal in number to the consumers' societies, the latter overwhelmingly predominate in economic importance.

The consumers' societies include societies in various lines of business. Grocery stores predominate in most countries; in Belgium and France, however, bakeries form an important part of the consumers' movement. In Europe, generally, housing societies are becoming increasingly numerous. Some consumers' societies as part of their business operate a savings or banking department, though generally there is also either a banking department in the cooperative wholesale society or a separate central cooperative bank.

Only in Esthonia do the cooperative insurance societies form any considerable proportion of the whole number. Cooperative insurance, however, forms a very real part of the movement in many countries, but often these societies are included among the agricultural societies or cooperative insurance may be one function of societies of other types.

Workers' societies, known also as "self-governing workshops," in which the workers own the stock, perform the work, and receive the savings in dividends on wages, are, like the insurance societies, a small part of the movement as a whole, though found, as the above table shows, in considerable numbers in several countries. It seems to be conceded that this form of cooperation has the least likelihood of permanence and success, cooperatively. This type of society was Italy's peculiar contribution to the movement, and in 1919 these organizations formed nearly one-third of all the societies in that country; no information is at hand to show their present status. There are known to be a few workers' productive societies in the United States but the exact number has not been determined.

#### Consumers' Societies.

**I**N MOST countries one of the immediate results of the war was to increase the importance and influence of the consumers' cooperative movement; in some countries the cooperatives were utilized by the government in the distribution of food and other supplies to the people, in others, the rationing system worked to the detriment of the movement, limiting its proper expansion and growth. The war over, however, cooperators found themselves confronted by a much more solidly organized business world than ever before. Added to this has been the handicap of discriminatory tax legislation in many countries, and the general economic situation with its widespread unemployment which has severely affected the moderately circumstanced members of cooperative societies. As a result, for the past few years the movement, even in countries where it had formerly been the most powerful, has suffered absolute decreases in sales, although, due to depreciation of currency, this decrease is not always shown by the annual figures.

In the tables which follow, no attempt has been made to convert foreign into United States currency, for such conversions would be entirely misleading because of the greatly depreciated currency in certain countries. For the same reason caution should be exercised in making comparisons between countries.

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The table below shows the membership and average size of consumers' cooperative societies in 21 countries for which figures were obtained. For the sake of comparison the average membership in 1918 is also given.

AVERAGE MEMBERSHIP OF CONSUMERS' SOCIETIES, 1918 AND 1922, BY COUNTRIES.

| Country.            | 1922                           |                      |  | Average membership per society, 1918. |
|---------------------|--------------------------------|----------------------|--|---------------------------------------|
|                     | Number of societies reporting. | Number of members.   | Average number of members per society. |                                       |
| Argentina.....      | 47                             | 29,311               | 624                                    | ( <sup>1</sup> )                      |
| Austria.....        | 173                            | 511,019              | 2,954                                  | <sup>2</sup> 772                      |
| Belgium.....        | 204                            | 303,580              | 1,488                                  | <sup>3</sup> 833                      |
| Bulgaria.....       | 69                             | 42,968               | 623                                    | ( <sup>1</sup> )                      |
| Czechoslovakia..... | 1,597                          | 867,195              | 543                                    | 307                                   |
| Denmark.....        | 1,805                          | 337,535              | 187                                    | <sup>4</sup> 156                      |
| Estonia.....        | 254                            | 100,000              | 394                                    | ( <sup>1</sup> )                      |
| Finland.....        | 622                            | 350,846              | 564                                    | <sup>2</sup> 374                      |
| France.....         | <sup>5</sup> 4,043             | 2,498,449            | 618                                    | 506                                   |
| Germany.....        | 1,350                          | 3,162,000            | 2,342                                  | 1,274                                 |
| Hungary.....        | 1,970                          | 800,000              | 406                                    | <sup>6</sup> 158                      |
| Latvia.....         | 256                            | 96,414               | 377                                    | ( <sup>1</sup> )                      |
| Norway.....         | 411                            | 93,189               | 227                                    | 289                                   |
| Poland.....         | <sup>5</sup> 1,049             | <sup>6</sup> 348,500 | 332                                    | 214                                   |
| Rumania.....        | 1,802                          | 102,805              | 57                                     | <sup>2</sup> 47                       |
| Russia.....         | 32,040                         | 3,500,000            | 109                                    | ( <sup>1</sup> )                      |
| Sweden.....         | 901                            | 259,388              | 288                                    | 266                                   |
| Switzerland.....    | 519                            | 363,478              | 700                                    | 741                                   |
| United Kingdom..... | <sup>5</sup> 1,489             | 4,531,577            | 3,043                                  | 2,820                                 |
| United States.....  | 7,966                          | <sup>7</sup> 260,060 | 269                                    | ( <sup>1</sup> )                      |
| Yugoslavia.....     | <sup>5</sup> 88                | <sup>6</sup> 21,447  | 244                                    | ( <sup>1</sup> )                      |

<sup>1</sup> Not reported.<sup>2</sup> Year 1916.<sup>3</sup> Year 1912.<sup>4</sup> Year 1915.<sup>5</sup> Year 1921.<sup>6</sup> Year 1910.<sup>7</sup> Year 1920.

The above table accounts for 51,655 societies, with a membership of 18,579,761; these figures are not to be taken as being all-inclusive of the movement in the countries included in the table, but simply as the number reporting membership. As is seen, the average membership of consumers' societies ranges from 57 in Rumania, to 3,043 in the United Kingdom. The United Kingdom also leads in number of cooperators, with Russia, Germany, and France following in the order named.

Comparison with 1918 figures shows an increase in the average size of the societies in all countries except Norway and Switzerland, where a small decrease is shown. In Belgium and Germany societies have about doubled in size, while in Austria they are nearly four times as large as in 1918.

In the table below are shown, for 14 countries, the number of societies affiliated to the national unions, their membership, paid-in share capital, and sales for 1922.

## MEMBERSHIP, SHARE CAPITAL, AND SALES OF SOCIETIES AFFILIATED TO CENTRAL UNION, 1922, BY COUNTRIES.

| Country.                                      | Number of affiliated societies. | Membership.            | Share capital. <sup>1</sup> | Amount of sales, 1922. <sup>1</sup> |
|---|---------------------------------|------------------------|-----------------------------|-------------------------------------|
| Austria.....                                  | 173                             | 511,019                | Kr. 3,824,878,000           | Kr. 221,971,570,701                 |
| Belgium.....                                  | 71                              | 169,086                | ( <sup>2</sup> )            | ( <sup>2</sup> )                    |
| Bulgaria.....                                 | ( <sup>2</sup> )                | ( <sup>2</sup> )       | Levas 9,000,000             | Levas 132,000,000                   |
| Czechoslovakia:                               |                                 |                        |                             |                                     |
| V. D. P. <sup>3</sup> .....                   | <sup>4</sup> 1,326              | <sup>4</sup> 605,498   | <sup>4</sup> Kr. 63,512,288 | <sup>4</sup> Kr. 1,585,762,209      |
| German Union.....                             | 271                             | 261,697                | ( <sup>2</sup> )            | Kr. 632,218,488                     |
| Finland:                                      |                                 |                        |                             |                                     |
| Y. O. L. <sup>3</sup> .....                   | <sup>4</sup> 509                | <sup>4</sup> 190,000   | ( <sup>2</sup> )            | ( <sup>2</sup> )                    |
| K. K. <sup>3</sup> .....                      | 113                             | 160,846                | ( <sup>2</sup> )            | F. mks. 735,700,000                 |
| France.....                                   | <sup>4</sup> 2,291              | <sup>5</sup> 1,360,700 | ( <sup>2</sup> )            | <sup>6</sup> Fr. 1,153,697,608      |
| Germany.....                                  | 1,350                           | 3,162,000              | Mks. 348,000,000            | Mks. 87,065,000,000                 |
| Hungary:                                      |                                 |                        |                             |                                     |
| "Hangya".....                                 | 1,970                           | 780,000                | ( <sup>2</sup> )            | ( <sup>2</sup> )                    |
| Central Distributive Union.....               | 19                              | 173,242                | ( <sup>2</sup> )            | ( <sup>2</sup> )                    |
| Norway.....                                   | 411                             | 93,189                 | ( <sup>2</sup> )            | Kr. 104,874,100                     |
| Russia.....                                   | 32,040                          | 3,500,000              | ( <sup>2</sup> )            | G. r. 243,259,788                   |
| Sweden.....                                   | 901                             | 259,388                | ( <sup>2</sup> )            | Kr. 264,000,000                     |
| Switzerland.....                              | 519                             | 363,478                | Fr. 1,543,320               | Fr. 274,129,268                     |
| United Kingdom:                               |                                 |                        |                             |                                     |
| England and Wales.....                        | <sup>4</sup> 1,043              | <sup>4</sup> 3,838,573 | <sup>8</sup> £ 72,338,599   | <sup>4</sup> £ 169,913,880          |
| Scotland.....                                 | <sup>4</sup> 258                | <sup>4</sup> 662,885   | <sup>8</sup> £ 12,715,093   | <sup>4</sup> £ 46,692,271           |
| Ireland.....                                  | <sup>4</sup> 51                 | <sup>4</sup> 47,099    | <sup>8</sup> £ 613,756      | <sup>4</sup> £ 2,174,233            |
| Yugoslavia:                                   |                                 |                        |                             |                                     |
| Union of Officials' Consumers' Societies..... | <sup>4</sup> 88                 | <sup>4</sup> 21,447    | ( <sup>2</sup> )            | ( <sup>2</sup> )                    |
| Serbian Union.....                            | <sup>4</sup> 1,576              | ( <sup>2</sup> )       | ( <sup>2</sup> )            | ( <sup>2</sup> )                    |

<sup>1</sup> Owing to the great depreciation in the currency of some of the countries included in this table no attempt is made to convert foreign into United States money. Austrian krone at par=20.26 cents; Czechoslovakian krone=20.3 cents; franc, leva, and Finnish mark=19.3 cents; mark=23.8 cents; Scandinavian krone=26.8 cents; gold ruble=51.46 cents; £=\$4.8665.

<sup>2</sup> Not reported.

<sup>3</sup> Letters represent initials of name of central society

<sup>4</sup> 1921.

<sup>5</sup> 1921; 1,733 societies reporting.

<sup>6</sup> 1920; 1,801 societies reporting.

<sup>7</sup> Approximate.

<sup>8</sup> 1921; including also loan capital.

The above table shows for the 43,404 societies for which membership figures are reported, a total of 16,180,147 cooperators. This represents some 60,000,000 persons in these 14 countries supplied cooperatively by societies which are members of the central union or unions of their respective countries; no information is available to show how many more are supplied by nonaffiliated societies.

## Wholesale Societies.

In the following table are shown the details of operation of the wholesale societies of 20 countries in 1922:

## STATISTICS OF OPERATION OF WHOLESALE SOCIETY OF VARIOUS COUNTRIES IN 1922.

| Country.                                  | Affiliated societies. |                       | Monetary unit. <sup>1</sup> | Wholesale.       |                  |                           |                            |                  |
|---|-----------------------|-----------------------|-----------------------------|------------------|------------------|---------------------------|----------------------------|------------------|
|   | Number.               | Membership.           |                             | Share capital.   | Reserves.        | Value of goods produced.  | Sales.                     | Surplus savings. |
| Austria.....                              | <sup>2</sup> 97       | <sup>3</sup> 574, 116 | Krone                       | 763, 914, 493    | 65, 000, 000     | ( <sup>4</sup> )          | 194, 496, 224, 000         | 1, 697, 000, 000 |
| Belgium.....                              | ( <sup>4</sup> )      | ( <sup>4</sup> )      | Franc                       | ( <sup>4</sup> ) | ( <sup>4</sup> ) | ( <sup>4</sup> )          | 72, 403, 234               | ( <sup>4</sup> ) |
| Bulgaria.....                             | 69                    | 42, 968               | Leva.                       | 4, 462, 000      | ( <sup>4</sup> ) | -----                     | 193, 000, 000              | 560, 000         |
| Czechoslovakia:                           |                       |                       |                             |                  |                  |                           |                            |                  |
| V. D. P. <sup>5</sup> .....               | <sup>2</sup> 1,326    | <sup>2</sup> 605, 498 | Krone                       | ( <sup>4</sup> ) | ( <sup>4</sup> ) | 47, 539, 213              | 588, 687, 448              | ( <sup>4</sup> ) |
| German Union.                             | 271                   | 261, 697              | ...do..                     | ( <sup>4</sup> ) | ( <sup>4</sup> ) | ( <sup>4</sup> )          | ( <sup>4</sup> )           | ( <sup>4</sup> ) |
| Denmark.....                              | 1, 805                | 337, 535              | ...do..                     | 27, 000, 000     | 14, 500, 000     | 29, 735, 463              | 123, 410, 344              | 6, 245, 174      |
| Estonia (E. T. K.) <sup>5</sup>           | 254                   | 100, 000              | E.mk.                       | ( <sup>4</sup> ) | ( <sup>4</sup> ) | ( <sup>4</sup> )          | 1, 526, 000, 000           | ( <sup>4</sup> ) |
| Finland:                                  |                       |                       |                             |                  |                  |                           |                            |                  |
| S. O. K. <sup>5</sup> .....               | 470                   | ( <sup>4</sup> )      | F.mk.                       | 695, 475         | 19, 900, 001     | 34, 847, 769              | 416, 599, 251              | 5, 455, 501      |
| O. T. K. <sup>5</sup> .....               | 113                   | 160, 846              | ...do..                     | ( <sup>4</sup> ) | ( <sup>4</sup> ) | ( <sup>4</sup> )          | 318, 401, 410              | ( <sup>4</sup> ) |
| France.....                               | 1, 653                | ( <sup>4</sup> )      | Franc                       | 7, 248, 025      | ( <sup>4</sup> ) | 23, 928, 711              | 217, 947, 418              | ( <sup>4</sup> ) |
| Germany.....                              | 1, 350                | 3, 162, 000           | Mark.                       | 50, 000, 000     | 35, 000, 000     | 3, 827, 091, 476          | 38, 175, 732, 589          | ( <sup>4</sup> ) |
| Hungary:                                  |                       |                       |                             |                  |                  |                           |                            |                  |
| " Hangya ".....                           | 1, 970                | 800, 000              | Krone                       | ( <sup>4</sup> ) | ( <sup>4</sup> ) | ( <sup>4</sup> )          | 6, 700, 000, 000           | ( <sup>4</sup> ) |
| Central Distributive Union.               | 19                    | 173, 242              | Mark.                       | ( <sup>4</sup> ) | ( <sup>4</sup> ) | ( <sup>4</sup> )          | 44, 839, 195               | ( <sup>4</sup> ) |
| Latvia.....                               | <sup>2</sup> 163      | ( <sup>4</sup> )      | Ruble                       | ( <sup>4</sup> ) | ( <sup>4</sup> ) | <sup>2</sup> 10, 000, 000 | 564, 185, 058              | 1, 165, 344      |
| Lithuania.....                            | 242                   | ( <sup>4</sup> )      | Lita..                      | ( <sup>4</sup> ) | ( <sup>4</sup> ) | ( <sup>4</sup> )          | 30, 000, 000               | ( <sup>4</sup> ) |
| Netherlands.....                          | ( <sup>4</sup> )      | ( <sup>4</sup> )      | Florin                      | ( <sup>4</sup> ) | ( <sup>4</sup> ) | ( <sup>4</sup> )          | 11, 893, 808               | ( <sup>4</sup> ) |
| Norway.....                               | 411                   | 93, 189               | Krone                       | ( <sup>4</sup> ) | ( <sup>4</sup> ) | ( <sup>4</sup> )          | 20, 745, 181               | 210, 561         |
| Poland.....                               | <sup>2</sup> 1,049    | <sup>2</sup> 348, 500 | .....                       | ( <sup>4</sup> ) | ( <sup>4</sup> ) | ( <sup>4</sup> )          | ( <sup>4</sup> )           | ( <sup>4</sup> ) |
| Russia.....                               | 32, 040               | 3, 500, 000           | Ruble                       | ( <sup>4</sup> ) | ( <sup>4</sup> ) | ( <sup>4</sup> )          | 36, 000, 000               | ( <sup>4</sup> ) |
| Sweden.....                               | 901                   | 259, 388              | Krona                       | ( <sup>4</sup> ) | ( <sup>4</sup> ) | ( <sup>4</sup> )          | 63, 824, 500               | 909, 569         |
| Switzerland.....                          | 519                   | 363, 478              | Franc                       | 1, 569, 600      | 3, 150, 000      | ( <sup>4</sup> )          | 118, 421, 507              | 310, 028         |
| United Kingdom:                           |                       |                       |                             |                  |                  |                           |                            |                  |
| England and Wales.                        | ( <sup>4</sup> )      | ( <sup>4</sup> )      | Pound                       | ( <sup>4</sup> ) | 646, 635         | 20, 470, 431              | 65, 904, 812               | 111, 267         |
| Scotland.....                             | ( <sup>4</sup> )      | ( <sup>4</sup> )      | ...do..                     | ( <sup>4</sup> ) | ( <sup>4</sup> ) | 5, 339, 702               | 16, 976, 056               | 104, 437         |
| Yugoslavia:                               |                       |                       |                             |                  |                  |                           |                            |                  |
| Union of Officials' Consumers' Societies. | <sup>2</sup> 88       | <sup>2</sup> 21, 447  | Krone                       | ( <sup>4</sup> ) | ( <sup>4</sup> ) | ( <sup>4</sup> )          | <sup>2</sup> 11, 000, 000  | ( <sup>4</sup> ) |
| Serbian Union.                            | <sup>2</sup> 1,576    | ( <sup>4</sup> )      | ...do..                     | ( <sup>4</sup> ) | ( <sup>4</sup> ) | ( <sup>4</sup> )          | <sup>2</sup> 675, 000, 000 | ( <sup>4</sup> ) |

<sup>1</sup> Owing to the great depreciation in the currency of some of the countries included in this table, no conversions into United States money are made; Austrian krone, Czechoslovak krone, Hungarian krone, and Yugoslav krone at par=20.3 cents; franc, leva, Finnish mark, and Estonian mark=19.3 cents; German mark=23.8 cents; Scandinavian krone=26.8 cents; ruble (gold)=51.46 cents; lita=10 cents; and florin=40.2 cents.

<sup>2</sup> 1921.

<sup>3</sup> 1921; 90 societies reporting.

<sup>4</sup> Not reported.

<sup>5</sup> Letters represent initials of society's name.

It will be noted that the United States is omitted from the above table, there being no national wholesale society, though there are several district wholesales in operation. In 1918 plans were made for the establishment of a national society and it was later organized. Faults of organization, methods, and management soon caused its failure, however, and no attempt has yet been made to found its successor.

The sales of the wholesale societies and their affiliated societies in 1921 and 1922 are given in the table which follows:

SALES OF WHOLESALE AND AFFILIATED SOCIETIES IN VARIOUS COUNTRIES, 1921 AND 1922.

| Country.                              | Monetary unit. <sup>1</sup> | Amount of business of— |                  |                       |                  |
|---------------------------------------|-----------------------------|------------------------|------------------|-----------------------|------------------|
|                                       |                             | Wholesale society.     |                  | Affiliated societies. |                  |
|                                       |                             | 1921                   | 1922             | 1921                  | 1922             |
| Austria.....                          | Krone.....                  | 10,063,182,027         | 194,496,224,000  | 10,388,278,304        | 221,971,570,701  |
| Belgium.....                          | Franc.....                  | 65,973,396             | 72,403,234       | 272,000,000           | ( <sup>2</sup> ) |
| Bulgaria.....                         | Leva.....                   | 162,000,000            | 193,000,000      | 98,000,000            | 132,000,000      |
| Czechoslovakia:                       |                             |                        |                  |                       |                  |
| V. D. P. <sup>2</sup> .....           | Krone.....                  | 980,355,328            | 588,687,448      | 1,585,762,209         | ( <sup>2</sup> ) |
| German Union.....                     | do.....                     | 459,422,672            | ( <sup>2</sup> ) | 712,625,447           | 623,218,488      |
| Denmark.....                          | do.....                     | 174,608,257            | 123,410,344      | ( <sup>2</sup> )      | ( <sup>2</sup> ) |
| Estonia (E. T. K.) <sup>2</sup> ..... | E. mk.....                  | 873,708,600            | 1,526,000,000    | 1,250,000,000         | ( <sup>2</sup> ) |
| Finland:                              |                             |                        |                  |                       |                  |
| S. O. K. <sup>2</sup> .....           | F. mk.....                  | 359,143,294            | 416,599,251      | 1,058,054,497         | ( <sup>2</sup> ) |
| O. T. K. <sup>2</sup> .....           | do.....                     | 193,893,634            | 318,401,410      | 673,000,000           | 735,700,000      |
| France.....                           | Franc.....                  | 152,600,513            | 217,947,418      | ( <sup>2</sup> )      | ( <sup>2</sup> ) |
| Germany.....                          | Mark.....                   | 2,406,982,699          | 38,175,732,589   | ( <sup>2</sup> )      | 87,065,000,000   |
| Hungary ("Hangya").....               | Krone.....                  | 1,889,534,440          | 6,700,000,000    | 3,000,000,000         | ( <sup>2</sup> ) |
| Latvia.....                           | Ruble.....                  | 349,690,472            | 564,185,058      | ( <sup>2</sup> )      | ( <sup>2</sup> ) |
| Lithuania.....                        | Auk.....                    | 50,000,000             | ( <sup>2</sup> ) | 50,000,000            | ( <sup>2</sup> ) |
| Netherlands.....                      | Florin.....                 | 14,215,538             | 11,893,808       | ( <sup>2</sup> )      | ( <sup>2</sup> ) |
| Norway.....                           | Krone.....                  | 20,966,222             | 20,745,181       | 115,099,500           | 104,874,100      |
| Poland.....                           | Mark.....                   | 2,836,870,703          | ( <sup>2</sup> ) | 7,500,000,000         | ( <sup>2</sup> ) |
| Russia.....                           | Ruble.....                  | ( <sup>2</sup> )       | 52,000,000       | ( <sup>2</sup> )      | 243,259,788      |
| Spain, northern.....                  | Peseta.....                 | 3,338,742              | 3,563,927        | ( <sup>2</sup> )      | ( <sup>2</sup> ) |
| Sweden.....                           | Krona.....                  | 62,372,275             | 63,824,500       | 227,746,400           | 264,000,000      |
| Switzerland.....                      | Franc.....                  | 144,419,697            | 118,421,507      | 337,366,085           | 274,129,268      |
| United Kingdom:                       |                             |                        |                  |                       |                  |
| England and Wales....                 | Pound.....                  | 81,941,682             | 65,904,812       | ( <sup>2</sup> )      | ( <sup>2</sup> ) |
| Scotland.....                         | do.....                     | 22,041,158             | 16,976,056       | ( <sup>2</sup> )      | ( <sup>2</sup> ) |
| Ireland.....                          | do.....                     | 1,118,718              | ( <sup>2</sup> ) | ( <sup>2</sup> )      | ( <sup>2</sup> ) |

<sup>1</sup> Owing to the great depreciation in the currency of some of the countries included in this table no conversions into United States money are made; Austrian krone, Czechoslovak krone, and Hungarian krone at par=20.3 cents; franc, leva, Estonian and Finnish mark, and peseta=19.3 cents; German mark and Lithuanian auk=23.8 cents; ruble (gold)=51.46 cents; florin=40.2 cents; and Scandinavian krone=26.8 cents.

<sup>2</sup> Not reported.

<sup>3</sup> Letters represent initials of society's name.



## Court Decision as to Contract with Cooperative Marketing Association, Kansas.

**I**N A case (Kansas Wheat Growers' Association v. Schulte, 216 Pac. 311) recently before the Supreme Court of Kansas, appeal was taken from the denial of the District Court of Sedgwick County to grant to the association an injunction restraining Frank Schulte, one of its members, from disposing of his wheat crop otherwise than to it, as he had contracted. In the appeal, judgment was asked for liquidated damages of 25 cents a bushel for some thousand bushels which Schulte had sold in violation of his agreement and for costs, expenses, and attorney's fees in connection with the action.

It was brought out that the association was incorporated and operating under the cooperative law of the State, and its by-laws and marketing contract were drawn in accordance therewith. While making no attack upon the validity of the law, except article 16, the defendant alleged that he had been induced to sign the membership application and marketing contract "by false and fraudulent representations," which he set forth.

Section 16 of the act reads in part as follows:

Pending the adjudication of such an action and upon filing a verified complaint [or petition] showing the breach or threatened breach, \* \* \* the association shall be entitled to a temporary restraining order and preliminary injunction against the member.

In regard to this section the trial court held that if the statute meant literally what it says it would be a wrongful invasion of judicial power. The appeal court, however, felt that the former's position was not well taken, since, "generally speaking, it is the function of the legislative branch of the government to enact statutes, which is, in effect, the laying down of rules and regulations applicable to the particular subject matter in hand."

In other words, where a party seeking an injunction has by his pleadings and proof shown that he is entitled thereto under the law governing the relation of the parties, he is entitled to an injunction as a matter of right, just as any litigant should have judgment as a matter of right when his pleading and proof show he is entitled to it. [Cases cited.] \* \* \* Properly construed, section 16 is not void as being an improper legislative restriction upon the judicial discretion of courts of equity. When a reasonable showing has been made, the association is entitled to a temporary injunction upon giving a proper bond.

The court pointed out that from the very nature of the association a supply of wheat from its members was necessary for its existence, and that even the payment of damages of 25 cents a bushel "would not sustain the association and enable it to do the business for which it is incorporated. \* \* \* The only adequate remedy is injunction, preventing the member from selling to others, and thus forcing the delivery of the wheat to the association."

As to Schulte's allegation of fraud, the court found that—

It is clear that there was very little, if any, fraud about the matter, and the court did not refuse the injunction for that reason. It is also clear that the fraud, if any, did not control the defendant in refusing to deliver his wheat. The reason he did not deliver it, as made clear from the evidence, is that he had concluded not to deliver it unless he knew what price he was to receive for it. As previously observed, he was not entitled to refuse for that reason.

The judgment of the lower court was therefore unanimously reversed and the case remanded for further proceedings in accordance with the opinion of the supreme court.

[1967]

## Development of Building and Loan Associations in the United States.

THE thirty-first annual convention of the United States League of Building and Loan Associations was held at Tacoma, Wash., July 24 to 26, 1923. These associations have many cooperative features, stressing the idea of mutuality: "An equality of rights, powers, privileges, and opportunity in the organization and operation, control, and management of the association; and also an equal interest and liability in its results."<sup>1</sup> In fact, in Massachusetts, building and loan associations are legally recognized as cooperative and are known as "cooperative banks." As is well known, while an important result of these institutions is the cultivation of thrift, their primary purpose is to enable their members to own their own homes.

The following statistics for 1922-23 were given in the report to the convention by the secretary of the league.<sup>2</sup> For the sake of comparison figures for 1918-19<sup>3</sup> are also given.

NUMBER AND MEMBERSHIP OF BUILDING AND LOAN ASSOCIATIONS, 1918-19 AND 1922-23 BY STATES.

| State.                    | Number of associations. |          | Total membership. |             | Total assets. |               |
|---------------------------|-------------------------|----------|-------------------|-------------|---------------|---------------|
|                           | 1918-19.                | 1922-23. | 1918-19.          | 1922-23.    | 1918-19.      | 1922-23.      |
| Arizona.....              | 4                       | 4        | 2,400             | 3,750       | 802,699       | 1,415,308     |
| Arkansas.....             | 42                      | a 54     | 21,386            | a 28,225    | 12,234,608    | a 17,997,261  |
| California.....           | 86                      | 112      | 40,409            | 63,825      | 37,120,999    | 64,732,760    |
| Colorado.....             | 38                      | 50       | 15,483            | 28,635      | 7,823,972     | 14,304,330    |
| Connecticut.....          | 22                      | 34       | 15,000            | 25,600      | 5,250,000     | 9,633,382     |
| District of Columbia..... | 20                      | 21       | 38,951            | 51,109      | 24,250,684    | 35,830,000    |
| Illinois.....             | 681                     | 741      | 240,000           | 390,000     | 119,712,407   | 201,928,358   |
| Indiana.....              | 346                     | 369      | 198,418           | 270,725     | 80,468,883    | 140,945,474   |
| Iowa.....                 | 57                      | 72       | 35,440            | 52,800      | 12,385,755    | 24,658,855    |
| Kansas.....               | 74                      | 120      | 64,679            | 118,220     | 28,157,391    | 55,613,521    |
| Kentucky.....             | 122                     | 120      | 63,266            | 111,000     | 28,439,546    | 48,000,000    |
| Louisiana.....            | 64                      | 70       | 50,366            | 91,000      | 27,586,719    | 69,189,443    |
| Maine.....                | 38                      | 38       | 15,057            | 18,400      | 7,251,168     | 10,585,468    |
| Maryland.....             | 590                     | b 785    | 87,963            | b 177,150   | 41,782,242    | b 88,575,000  |
| Massachusetts.....        | 186                     | 209      | 247,224           | 327,157     | 140,201,034   | 225,092,157   |
| Michigan.....             | 70                      | 81       | 82,565            | 114,730     | 37,923,798    | 58,546,237    |
| Minnesota.....            | 64                      | 66       | 21,800            | 30,575      | 8,890,021     | 14,686,752    |
| Missouri.....             | 158                     | 201      | 55,147            | 104,214     | 29,260,489    | 60,497,796    |
| Montana.....              | 18                      | 26       | 5,441             | 23,936      | 2,094,836     | 5,460,973     |
| Nebraska.....             | 73                      | 80       | 104,363           | 143,456     | 57,151,546    | 91,994,730    |
| New Hampshire.....        | 22                      | 27       | 8,642             | 12,393      | 3,682,699     | 5,791,551     |
| New Jersey.....           | 792                     | 1,098    | 348,805           | 678,973     | 169,308,867   | 359,268,557   |
| New Mexico.....           | 13                      | b 13     | 3,515             | 5,200       | 1,454,728     | b 2,170,000   |
| New York.....             | 249                     | 282      | 200,111           | 321,044     | 89,017,871    | 153,161,292   |
| North Carolina.....       | 133                     | 235      | 40,000            | 65,000      | 19,453,000    | 44,398,834    |
| North Dakota.....         | 10                      | 13       | 5,835             | 9,075       | 2,911,970     | 4,529,065     |
| Ohio.....                 | 723                     | 875      | 842,754           | 1,169,828   | 359,559,538   | 564,348,517   |
| Oklahoma.....             | 44                      | 82       | 19,800            | 89,164      | 9,134,704     | 51,713,296    |
| Oregon.....               | 10                      | 14       | 10,204            | 24,990      | 4,198,083     | 10,000,000    |
| Pennsylvania.....         | 2,124                   | 3,316    | 725,000           | 1,251,000   | 355,000,000   | 624,000,000   |
| Rhode Island.....         | 8                       | 8        | 12,205            | 20,537      | 6,377,469     | 10,545,499    |
| South Carolina.....       | 134                     | 152      | 13,500            | 20,404      | 4,816,301     | 7,626,890     |
| South Dakota.....         | c 14                    | b 18     | c 5,857           | b 7,350     | c 3,603,836   | b 4,500,000   |
| Tennessee.....            | 12                      | 11       | 5,497             | 5,750       | 3,070,181     | 3,472,527     |
| Texas.....                | 25                      | 88       | 7,531             | 23,545      | 2,484,957     | 7,162,995     |
| Vermont.....              | 7                       | 8        | 790               | 1,955       | 352,055       | 815,521       |
| Washington.....           | 37                      | 52       | 39,944            | 75,233      | d 10,287,315  | 29,696,405    |
| West Virginia.....        | 52                      | 44       | 23,530            | 35,300      | 8,890,789     | 13,780,294    |
| Wisconsin.....            | 79                      | 115      | 54,393            | 114,179     | 23,365,389    | 71,821,023    |
| Other States.....         | 243                     | 305      | 238,130           | 258,717     | 112,585,797   | 134,036,882   |
| Total.....                | 7,484                   | 10,009   | 4,011,401         | e 6,864,144 | 1,898,344,346 | 3,342,530,953 |

a 1921 figures.

b Estimated.

c 1917 figures.

d Washington Savings & Loan Association, Seattle, with net assets (1917) of \$6,354,280, converted to Mutual Savings Bank, not included. Actual increase in assets \$2,197,427.

e Items add to 6,364,144; but total given above is as shown in report.

<sup>1</sup> Rosenthal, Henry S.: *Cyclopedia of Building, Loan, and Savings Associations*. Cincinnati, American Building Association News Co., 1920, p. 12.

<sup>2</sup> See *The American Building Association News*, Cincinnati, August, 1923, p. 359.

<sup>3</sup> From *Cyclopedia of Building, Loan, and Savings Associations*, by Henry S. Rosenthal, p. 28.

Strike of Employees of English Cooperative Wholesale Society.<sup>1</sup>

IN SEPTEMBER, 1922, the employees\* in the Cooperative Wholesale Society's factories at Pelaw and Silvertown signed a document binding themselves to abide by the decisions of the sugar confectionery and preserving trades wages board. At that time the Wholesale Society granted a rate 10 per cent above that fixed by the board. The rate established by the board was later lowered by it and accordingly, the Wholesale Society reduced the wages of its male employees 2s. (48.7 cents, par) and of its female employees 1s. (24.3 cents, par) per week, effective April 9, 1923. This reduction was opposed by the National Union of Distributive Workers, to which many of the employees belonged, which took the position (1) that the unions of which cooperative employees were members should have been consulted before the reduction was made and (2) that the Cooperative Wholesale Society had acted in contravention of its own resolution of January 5 in which the Wholesale Society stated that all future changes in wages, hours, and conditions of employment should be negotiated with the trade-unions concerned, and that, failing agreement, the matter should be referred to the joint committee of trade-unionists and cooperators. The Cooperative Wholesale Society replied that the resolution referred only to such changes as were in conflict with agreements negotiated by trade-unions, trade boards, or industrial councils, and that it had placed itself on record to that effect. "Any necessity of having to consult with unions with regard to changes in rates of wages to which the unions have already agreed is one that really should not be tolerated."

On April 21 the National Union withdrew its workers and a strike was called.

Negotiations began, the employees' unions offering to recommend resumption of work on condition of reinstatement of the strikers at their former rates of pay and of the refund of the loss of wages suffered, through the reduction, in the two weeks before the strike was called. This was referred to the board of directors of the Cooperative Wholesale Society which on May 9 passed the following resolution:

That the board adopt the recommendation of the wages committee to allow the employees to return to work on the terms in force previous to the reduction on April 9, pending negotiations between the Cooperative Wholesale Society and the unions concerned regarding the reduction only, and further, that our resolution of February 16, 1923, claiming certain reservations to our agreement of January 5, 1923, be referred at an early date to a meeting of the joint committee of trade-unionists and cooperators, the Trade-Union Congress general council, and the Cooperative Wholesale Society.

At a conference between the Cooperative Wholesale Society board of directors and the general council of the Trade-Union Congress, the following points of agreement were reached:

That the factories at Pelaw and Silvertown be reopened for work at the rates of wages prevailing previous to the reduction on April 9, 1923, the whole of the employees now on strike return to work as speedily as the restarting of the factories permit, without prejudice to their positions or prospects of promotion; and we submit the case to the joint committee of trade-unionists and cooperators for arbitration on the matter of the reduction named.

That other and/or future matters of wages and conditions of employment raised between the Cooperative Wholesale Society and the National Union of Distributive and Allied Workers and the National Amalgamated Union of Shop Assistants, Ware-

<sup>1</sup> The Producer, Manchester (England), issues of May to August, 1923.

housemen, and Clerks, shall be dealt with by the usual method of negotiation, and in the case of nonagreement by arbitration in accordance with the constitution of the joint committee of trade-unionists and co-operators: *Always provided*, That the Cooperative Wholesale Society shall be entitled to apply to their workers on or after the dates they become operative all trade-union agreed or accepted variations in wages and conditions of employment, also variations made by joint industrial council awards and industrial court decisions. The Cooperative Wholesale Society shall be entitled also to apply trade board variations unless such variations are the subject of negotiation between other employers and the trade-unions concerned.

This offer was refused by the unions and the strike spread to other factories of the Wholesale Society, involving altogether some 5,000 employees. The union was willing to submit all the clauses of the offer to arbitration; the Cooperative Wholesale Society, however, stood firm in refusing to arbitrate as to the proviso. The matter was finally submitted to the joint committee of trade-unionists and co-operators which rendered a decision on June 25 corresponding almost exactly with the offer made as the result of the Cooperative Wholesale Society and trade-union conference, and providing for a further inquiry on the subject of the proviso.

Following this decision practically all the strikers returned to work.

At a meeting of the joint committee the following rates for a 44-hour week, effective on the pay day of the week of July 23, 1923, were established for the drug and packing factories at Pelaw and Silvertown:

| Weekly rate.         |    |                 | Weekly rate.                       |    |                 |
|----------------------|----|-----------------|------------------------------------|----|-----------------|
| Males:               | s. | d. <sup>1</sup> | Males—concluded.                   | s. | d. <sup>1</sup> |
| 14 years of age..... | 10 | 1               | 23 years of age.....               | 46 | 5               |
| 15 years of age..... | 13 | 7               | 24 years of age <sup>2</sup> ..... | 50 | 5               |
| 16 years of age..... | 18 | 2               | Females:                           |    |                 |
| 17 years of age..... | 23 | 2               | 14 years of age.....               | 10 | 1               |
| 18 years of age..... | 27 | 3               | 15 years of age.....               | 13 | 7               |
| 19 years of age..... | 31 | 3               | 16 years of age.....               | 18 | 2               |
| 20 years of age..... | 35 | 4               | 17 years of age.....               | 23 | 2               |
| 21 years of age..... | 38 | 4               | 18 years of age <sup>3</sup> ..... | 27 | 3               |
| 22 years of age..... | 42 | 4               |                                    |    |                 |

On July 31, the joint committee rendered a report on the wholesale's proviso, in which it was pointed out that the terms were inexact and misleading, and that 90 per cent of the industrial court awards were for individual workers or particular circumstances. "It is therefore obvious that no employer can be permitted to apply such 'awards' indiscriminately or without negotiation with representatives of the workers concerned."

The remainder of the report is as follows:

As industrial council decisions are entered into as a result of negotiations between trade-unions and employees' [sic] associations, the committee can not resist the claim of the Cooperative Wholesale Society to apply these decisions. At the same time, when the application of these rates becomes the cause of dispute, the committee must concede to the workers the right to claim negotiations upon the rates, and failing settlement, must be submitted for arbitration.

The Cooperative Wholesale Society directors also ask that the society shall be entitled "to apply trade board variations unless such variations are the subject of negotiation between other employees and the trade-unions concerned." On this claim it is sufficient to remark that (with a few exceptions) trade board rates are only just re-

<sup>1</sup> Shilling at par=24.3 cents; penny=2.03 cents.

<sup>2</sup> Over 24 years of age a reduction of 2s. (48.7 cents, par) per week.

<sup>3</sup> Over 18 years of age a reduction of 1s. (24.3 cents, par) per week.

moved from "sweated" rates and are not "standard" rates. Under such circumstances it would certainly not be to the credit of the Cooperative Wholesale Society to make trade board rates its standard for fixing wages. Trade board rates can not be placed in the same category as either trade-union agreements or joint industrial council decisions. These and other similar considerations convince the committee that the Cooperative Wholesale Society directors have not fully realized the nature and extent of their demand, which, if acted upon, would in the opinion of the committee, lead to discontent and trouble greater than any yet caused by industrial disputes in the cooperative movement. The committee are of opinion that the Cooperative Wholesale Society should in all cases pay a percentage above trade board rates. Any variation in these rates may be applied, unless such variations are the subject of negotiation between the employers and the trade-unions concerned; but any trade-union concerned must have the right to discuss or negotiate any question arising out of such variation, and failing agreement, all questions in dispute must be referred to the joint committee, always providing that such negotiations or reference to the joint committee shall not hold up such variations pending an agreement being arrived at or a decision given. In the case of any body of workers for whom there is more than one rate applicable, the Cooperative Wholesale Society should always pay the higher rate unless an agreement has been arrived at by negotiation or an award has been given by the joint committee authorizing a lower rate.

Where trade-union agreements (either national or district) have been made by representative bodies of employers and workers, the same rates should apply to Cooperative Wholesale Society employees employed in the district covered by the agreement.

In order to protect the interest of all parties, joint industrial councils' and interim reconstruction committees' decisions should be subject to negotiation, or (failing agreement) the decision of the joint committee, provided always that such agreements or decisions date from the time of the respective council's decision to adopt them.

In presenting this report the joint committee desire to state that, in their opinion, in the recent dispute neither side has shown proper appreciation of the point of view of the other party.

The joint committee note with pleasure that both parties now express a desire for more harmonious working in the future. In view of this joint expression, the committee urge that an early meeting should be held (either of the two parties alone or under the auspices of representatives of the joint committee) to discuss ways and means for making disputes of this nature impossible in future.

The C. W. S. directors later proved the genuineness of their expressed wish for better relations by sending word to the British Trades-Union Congress, which met at Plymouth, September 3-8, that they had agreed to submit all future labor disputes to arbitration by the joint committee, thus relinquishing their stand with regard to the proviso.



# IMMIGRATION.

## Statistics of Immigration for Fiscal Year Ended June 30, 1923, and for July, 1923.

By W. W. HUSBAND, COMMISSIONER GENERAL OF IMMIGRATION.

THE following tables show the total number of immigrant aliens admitted into the United States and emigrant aliens departed from the United States from July, 1922, to July, 1923. The tabulations are presented according to the countries of last permanent or future permanent residence, races or peoples, occupations, and States of future permanent or last permanent residence. The last table (Table 6) shows the number of aliens admitted under the per centum limit act of May 19, 1921, from July 1 to August 31, 1923.

TABLE 1.—INWARD AND OUTWARD PASSENGER MOVEMENT, JULY, 1922, TO JULY, 1923.

| Period.                           | Arrivals.                                  |  |                               |                          |           | Departures.              |                                  |                               |         |
|-----------------------------------|--|--|-------------------------------|--------------------------|-----------|--------------------------|----------------------------------|-------------------------------|---------|
|                                   | Immi-<br>grant<br>aliens<br>ad-<br>mitted. | Non-<br>immi-<br>grant<br>aliens<br>ad-<br>mitted. | United<br>States<br>citizens. | Aliens<br>de-<br>barred. | Total.    | Emi-<br>grant<br>aliens. | Non-<br>emi-<br>grant<br>aliens. | United<br>States<br>citizens. | Total.  |
| July, 1922, to June,<br>1923..... | 522,919                                    | 150,487  | 308,471                       | 20,619                   | 1,002,496 | 81,450                   | 119,136                          | 270,601                       | 471,187 |
| July, 1923.....                   | 85,542                                     | 13,039   | 20,637                        | 2,899                    | 122,117   | 8,041                    | 14,213                           | 39,898                        | 62,152  |

TABLE 2.—LAST PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED AND FUTURE PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED DURING THE FISCAL YEAR ENDED JUNE 30, 1923, AND DURING JULY, 1923, BY COUNTRIES.

| Country.  | Immigrant.           |             | Emigrant.            |             |
|---|----------------------|-------------|----------------------|-------------|
|   | Fiscal year<br>1923. | July, 1923. | Fiscal year<br>1923. | July, 1923. |
| Austria.....  | 8,103                | 1,198       | 247                  | 26          |
| Belgium.....  | 1,590                | 297         | 672                  | 58          |
| Bulgaria.....   | 392                  | 72          | 156                  | 6           |
| Czechoslovakia.....                                     | 13,840               | 1,632       | 2,074                | 184         |
| Denmark.....  | 4,523                | 543         | 511                  | 47          |
| Finland.....  | 3,644                | 758         | 396                  | 44          |
| France, including Corsica.....                          | 4,380                | 861         | 1,507                | 216         |
| Germany.....  | 48,277               | 8,508       | 1,529                | 184         |
| Great Britain and Ireland:                              |                      |             |                      |             |
| England.....  | 21,558               | 4,768       | 5,505                | 538         |
| Ireland.....  | 15,740               | 3,622       | 1,368                | 175         |
| Scotland.....   | 23,019               | 5,506       | 705                  | 107         |
| Wales.....  | 1,182                | 237         | 34                   | 3           |
| Greece.....   | 3,333                | 861         | 2,988                | 611         |
| Hungary.....  | 5,914                | 605         | 895                  | 90          |
| Italy (including Sicily and Sardinia).....              | 46,674               | 7,153       | 23,329               | 2,347       |
| Netherlands.....  | 3,150                | 736         | 482                  | 65          |
| Norway.....   | 11,745               | 2,315       | 946                  | 95          |
| Poland.....   | 26,538               | 2,922       | 5,439                | 365         |
| Portugal (including Cape Verde and Azores Islands)..... | 2,384                | 515         | 2,620                | 280         |
| Rumania.....  | 11,947               | 1,936       | 1,169                | 174         |
| Russia.....   | 17,507               | 3,142       | 2,434                | 233         |
| Spain (including Canary and Balearic Islands).....      | 841                  | 158         | 2,557                | 274         |
| Sweden.....   | 17,916               | 3,851       | 1,179                | 131         |
| Switzerland.....  | 3,349                | 706         | 546                  | 49          |
| Turkey in Europe.....                                   | 3,743                | 665         | 125                  | 1           |
| Yugoslavia.....   | 6,181                | 276         | 2,064                | 171         |
| Other Europe.....                                       | 450                  | 106         | 179                  | 20          |
| Total Europe.....                                       | 307,920              | 53,949      | 61,656               | 6,494       |

TABLE 2.—LAST PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED AND FUTURE PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED DURING THE FISCAL YEAR ENDED JUNE 30, 1923, AND DURING JULY, 1923, BY COUNTRIES—Concluded.

| Country.                                  | Immigrant.        |             | Emigrant.         |             |
|---|-------------------|-------------|-------------------|-------------|
|   | Fiscal year 1923. | July, 1923. | Fiscal year 1923. | July, 1923. |
| China.....                                | 4,986             | 942         | 3,715             | 217         |
| Japan.....                                | 5,809             | 580         | 2,869             | 163         |
| India.....                                | 257               | 14          | 146               | 6           |
| Turkey in Asia.....                       | 2,183             | 533         | 773               | 110         |
| Other Asia.....                           | 470               | 83          | 90                | 6           |
| Total Asia.....                           | 13,705            | 2,152       | 7,593             | 502         |
| Africa.....                               | 548               | 256         | 113               | 13          |
| Australia, Tasmania, and New Zealand..... | 711               | 126         | 442               | 35          |
| Pacific Islands (not specified).....      | 48                | 7           | 22                | 1           |
| Canada and Newfoundland.....              | 117,011           | 16,184      | 2,775             | 263         |
| Central America.....                      | 1,275             | 254         | 550               | 66          |
| Mexico.....                               | 63,768            | 9,110       | 2,660             | 111         |
| South America.....                        | 4,737             | 938         | 1,447             | 104         |
| West Indies.....                          | 13,181            | 2,556       | 4,183             | 452         |
| Other countries.....                      | 15                | 10          | 9                 | .....       |
| Grand total.....                          | 522,919           | 85,542      | 81,450            | 8,041       |
| Male.....                                 | 307,522           | 53,472      | 54,752            | 5,121       |
| Female.....                               | 215,397           | 32,070      | 26,698            | 2,920       |

TABLE 3.—IMMIGRANT ALIENS ADMITTED TO AND EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING THE FISCAL YEAR ENDED JUNE 30, 1923, AND DURING JULY, 1923, BY RACES OR PEOPLES.

| Race or people.                                   | Immigrant.        |             | Emigrant.         |             |
|---|-------------------|-------------|-------------------|-------------|
|   | Fiscal year 1923. | July, 1923. | Fiscal year 1923. | July, 1923. |
| African (black).....                              | 7,554             | 1,663       | 1,525             | 162         |
| Armenian.....                                     | 2,396             | 546         | 69                | 3           |
| Bohemian and Moravian (Czech).....                | 5,537             | 960         | 1,716             | 185         |
| Bulgarian, Serbian, and Montenegrin.....          | 1,893             | 205         | 1,864             | 140         |
| Chinese.....                                      | 4,074             | 434         | 3,788             | 216         |
| Croatian and Slovenian.....                       | 4,163             | 263         | 233               | 3           |
| Cuban.....  | 1,347             | 183         | 751               | 73          |
| Dalmatian, Bosnian, and Herzegovinian.....        | 571               | 48          | 201               | 28          |
| Dutch and Flemish.....                            | 5,804             | 1,165       | 1,252             | 120         |
| East Indian.....                                  | 156               | 9           | 113               | 12          |
| English.....                                      | 60,524            | 10,272      | 7,979             | 758         |
| Finnish.....                                      | 3,087             | 634         | 445               | 45          |
| French.....                                       | 34,371            | 3,583       | 1,896             | 207         |
| German.....                                       | 65,543            | 11,160      | 2,217             | 250         |
| Greek.....  | 4,177             | 881         | 3,060             | 612         |
| Hebrew.....                                       | 49,719            | 6,750       | 413               | 32          |
| Irish.....  | 30,386            | 5,885       | 1,511             | 203         |
| Italian (north).....                              | 9,054             | 1,642       | 2,538             | 137         |
| Italian (south).....                              | 39,226            | 5,867       | 21,029            | 2,210       |
| Japanese.....                                     | 5,652             | 528         | 2,844             | 164         |
| Korean.....                                       | 104               | 13          | 55                | 3           |
| Lithuanian.....                                   | 1,828             | 296         | 1,109             | 85          |
| Magyar.....                                       | 6,922             | 892         | 1,039             | 89          |
| Mexican.....                                      | 62,709            | 8,825       | 2,479             | 109         |
| Pacific Islander.....                             | 14                | 3           | 6                 | .....       |
| Polish.....                                       | 13,210            | 2,438       | 5,278             | 364         |
| Portuguese.....                                   | 2,802             | 704         | 2,721             | 299         |
| Rumanian.....                                     | 1,397             | 212         | 1,098             | 166         |
| Russian.....                                      | 4,346             | 1,491       | 1,611             | 154         |
| Ruthenian (Russniak).....                         | 1,168             | 241         | 29                | 1           |
| Scandinavian (Norwegians, Danes, and Swedes)..... | 37,630            | 7,376       | 2,936             | 297         |
| Scotch.....                                       | 38,627            | 7,795       | 1,129             | 163         |
| Slovak.....                                       | 6,230             | 567         | 387               | 48          |
| Spanish.....                                      | 3,525             | 707         | 3,193             | 339         |
| Spanish American.....                             | 1,990             | 260         | 1,071             | 113         |
| Syrian.....                                       | 1,207             | 251         | 651               | 50          |
| Turkish.....                                      | 237               | 113         | 124               | 50          |
| Welsh.....  | 1,622             | 332         | 66                | 5           |
| West Indian (except Cuban).....                   | 1,467             | 259         | 716               | 99          |
| Other peoples.....                                | 650               | 89          | 308               | 47          |
| Total.....  | 522,919           | 85,542      | 81,450            | 8,041       |

TABLE 4.—IMMIGRANT ALIENS ADMITTED TO AND EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING THE FISCAL YEAR ENDED JUNE 30, 1923, AND DURING JULY, 1923, BY OCCUPATIONS.

| Occupation.  | Immigrant.        |               | Emigrant.         |             |
|--|-------------------|---------------|-------------------|-------------|
|  | Fiscal year 1923. | July, 1923.   | Fiscal year 1923. | July, 1923. |
| <b>Professional:</b>                                 |                   |               |                   |             |
| Actors.....  | 731               | 105           | 136               | 10          |
| Architects.....                                      | 283               | 50            | 34                | 2           |
| Clergymen.....                                       | 1,709             | 170           | 440               | 96          |
| Editors.....   | 74                | 2             | 19                |             |
| Electricians.....                                    | 2,409             | 549           | 64                | 12          |
| Engineers (professional).....                        | 2,483             | 669           | 235               | 30          |
| Lawyers.....   | 166               | 16            | 34                | 7           |
| Literary and scientific persons.....                 | 621               | 90            | 97                | 1           |
| Musicians.....                                       | 1,076             | 154           | 138               | 11          |
| Officials (Government).....                          | 550               | 61            | 200               | 19          |
| Physicians.....                                      | 704               | 105           | 118               | 8           |
| Sculptors and artists.....                           | 287               | 35            | 108               | 4           |
| Teachers.....  | 2,589             | 374           | 396               | 50          |
| Other professional.....                              | 2,860             | 509           | 518               | 65          |
| <b>Total.....</b>                                    | <b>16,542</b>     | <b>2,889</b>  | <b>2,537</b>      | <b>321</b>  |
| <b>Skilled:</b>                                      |                   |               |                   |             |
| Bakers.....  | 2,928             | 441           | 235               | 11          |
| Barbers and hairdressers.....                        | 1,898             | 330           | 266               | 22          |
| Blacksmiths.....                                     | 2,296             | 469           | 108               | 6           |
| Bookbinders.....                                     | 183               | 42            | 10                |             |
| Brewers.....   | 33                | 11            | 3                 |             |
| Butchers.....  | 2,055             | 342           | 181               | 17          |
| Cabinetmakers.....                                   | 370               | 75            | 64                | 7           |
| Carpenters and joiners.....                          | 12,805            | 2,850         | 518               | 63          |
| Cigarette makers.....                                | 39                | 11            |                   |             |
| Cigar makers.....                                    | 269               | 53            | 223               | 24          |
| Cigar packers.....                                   | 8                 | 2             | 3                 |             |
| Clerks and accountants.....                          | 16,470            | 2,905         | 1,505             | 118         |
| Dressmakers.....                                     | 4,189             | 566           | 262               | 26          |
| Engineers (locomotive, marine, and stationary).....  | 2,817             | 358           | 113               | 9           |
| Furriers and fur workers.....                        | 271               | 58            | 15                | 1           |
| Gardeners.....                                       | 900               | 176           | 134               | 9           |
| Hat and cap makers.....                              | 238               | 52            | 10                |             |
| Iron and steel workers.....                          | 4,076             | 1,123         | 75                | 5           |
| Jewelers.....  | 278               | 29            | 35                | 2           |
| Locksmiths.....                                      | 1,952             | 449           | 11                |             |
| Machinists.....                                      | 4,418             | 980           | 351               | 26          |
| Mariners.....  | 6,288             | 1,106         | 385               | 39          |
| Masons.....  | 3,276             | 847           | 181               | 11          |
| Mechanics (not specified).....                       | 4,644             | 1,063         | 314               | 18          |
| Metal workers (other than iron, steel, and tin)..... | 764               | 138           | 11                |             |
| Millers.....   | 309               | 53            | 12                | 23          |
| Milliners.....                                       | 632               | 72            | 35                |             |
| Miners.....  | 5,423             | 907           | 803               | 95          |
| Painters and glaziers.....                           | 2,550             | 552           | 183               | 5           |
| Pattern makers.....                                  | 237               | 53            | 2                 |             |
| Photographers.....                                   | 343               | 61            | 29                |             |
| Plasterers.....                                      | 503               | 90            | 18                | 3           |
| Plumbers.....  | 1,897             | 275           | 43                | 18          |
| Printers.....  | 930               | 176           | 58                | 8           |
| Saddlers and harness makers.....                     | 226               | 39            | 4                 |             |
| Seamstresses.....                                    | 2,074             | 329           | 74                | 5           |
| Shoemakers.....                                      | 3,307             | 659           | 376               | 39          |
| Stokers.....   | 729               | 112           | 48                |             |
| Stonecutters.....                                    | 521               | 106           | 17                | 2           |
| Tailors.....   | 5,559             | 919           | 489               | 65          |
| Tanners and curriers.....                            | 164               | 29            | 6                 | 1           |
| Textile workers (not specified).....                 | 351               | 99            | 7                 | 1           |
| Tinners.....   | 512               | 105           | 23                |             |
| Tobacco workers.....                                 | 27                | 4             | 2                 |             |
| Upholsterers.....                                    | 208               | 52            | 17                | 1           |
| Watch and clock makers.....                          | 345               | 79            | 34                | 2           |
| Weavers and spinners.....                            | 1,930             | 439           | 460               | 42          |
| Wheelwrights.....                                    | 62                | 16            |                   |             |
| Woodworkers (not specified).....                     | 283               | 116           | 17                |             |
| Other skilled.....                                   | 4,826             | 706           | 510               | 21          |
| <b>Total.....</b>                                    | <b>106,213</b>    | <b>20,054</b> | <b>8,281</b>      | <b>745</b>  |
| <b>Miscellaneous:</b>                                |                   |               |                   |             |
| Agents.....  | 1,461             | 289           | 130               | 14          |
| Bankers.....   | 118               | 20            | 95                | 8           |
| Draymen, hackmen, and teamsters.....                 | 943               | 227           | 54                | 1           |
| Farm laborers.....                                   | 25,905            | 4,227         | 943               | 33          |

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TABLE 4.—IMMIGRANT ALIENS ADMITTED TO AND EMIGRANT ALIENS DEPARTED FROM THE UNITED STATES DURING THE FISCAL YEAR ENDED JUNE 30, 1923, AND DURING JULY, 1923, BY OCCUPATIONS—Concluded.

| Occupation.                                      | Immigrant.        |             | Emigrant.         |             |
|--|-------------------|-------------|-------------------|-------------|
|  | Fiscal year 1923. | July, 1923. | Fiscal year 1923. | July, 1923. |
| Miscellaneous—Concluded.                         |                   |             |                   |             |
| Farmers.....                                     | 12,503            | 2,405       | 1,705             | 125         |
| Fishermen.....                                   | 2,165             | 330         | 60                | 3           |
| Hotel keepers.....                               | 187               | 23          | 35                |             |
| Laborers.....                                    | 83,552            | 13,767      | 32,912            | 2,953       |
| Manufacturers.....                               | 320               | 78          | 84                | 10          |
| Merchants and dealers.....                       | 8,856             | 1,409       | 2,546             | 165         |
| Servants.....                                    | 52,223            | 7,120       | 3,507             | 246         |
| Other miscellaneous.....                         | 20,346            | 3,187       | 3,321             | 539         |
| Total.....                                       | 208,579           | 33,082      | 45,392            | 4,097       |
| No occupation (including women and children).... | 191,585           | 29,517      | 25,240            | 2,878       |
| Grand total.....                                 | 522,919           | 85,542      | 81,450            | 8,041       |

TABLE 5.—FUTURE PERMANENT RESIDENCE OF IMMIGRANT ALIENS ADMITTED AND LAST PERMANENT RESIDENCE OF EMIGRANT ALIENS DEPARTED, DURING THE FISCAL YEAR ENDED JUNE 30, 1923, AND JULY, 1923, BY STATES AND TERRITORIES.

| State.                    | Immigrant.        |             | Emigrant.         |             |
|---------------------------|-------------------|-------------|-------------------|-------------|
|                           | Fiscal year 1923. | July, 1923. | Fiscal year 1923. | July, 1923. |
| Alabama.....              | 385               | 49          | 44                | 12          |
| Alaska.....               | 219               | 31          | 69                |             |
| Arizona.....              | 8,952             | 1,001       | 395               | 42          |
| Arkansas.....             | 202               | 20          | 19                | 2           |
| California.....           | 39,093            | 5,882       | 7,524             | 491         |
| Colorado.....             | 1,471             | 170         | 287               | 26          |
| Connecticut.....          | 9,554             | 1,664       | 1,639             | 292         |
| Delaware.....             | 473               | 75          | 67                |             |
| District of Columbia..... | 1,356             | 199         | 370               | 62          |
| Florida.....              | 3,020             | 486         | 1,464             | 197         |
| Georgia.....              | 451               | 48          | 62                | 18          |
| Hawaii.....               | 2,555             | 240         | 442               | 27          |
| Idaho.....                | 750               | 131         | 106               | 5           |
| Illinois.....             | 35,612            | 6,678       | 4,582             | 401         |
| Indiana.....              | 4,430             | 674         | 457               | 57          |
| Iowa.....                 | 3,861             | 582         | 290               | 25          |
| Kansas.....               | 1,451             | 188         | 124               | 9           |
| Kentucky.....             | 510               | 48          | 69                | 2           |
| Louisiana.....            | 1,027             | 115         | 391               | 66          |
| Maine.....                | 9,322             | 964         | 159               | 7           |
| Maryland.....             | 2,483             | 352         | 325               | 50          |
| Massachusetts.....        | 41,602            | 6,903       | 7,300             | 586         |
| Michigan.....             | 37,034            | 7,047       | 2,413             | 242         |
| Minnesota.....            | 7,975             | 1,647       | 648               | 64          |
| Mississippi.....          | 343               | 70          | 37                | 3           |
| Missouri.....             | 3,735             | 614         | 475               | 58          |
| Montana.....              | 1,982             | 292         | 238               | 19          |
| Nebraska.....             | 2,018             | 316         | 218               | 12          |
| Nevada.....               | 325               | 48          | 65                | 3           |
| New Hampshire.....        | 5,452             | 691         | 97                | 2           |
| New Jersey.....           | 25,274            | 4,125       | 3,288             | 333         |
| New Mexico.....           | 1,055             | 68          | 78                | 11          |
| New York.....             | 130,142           | 20,967      | 32,228            | 3,402       |
| North Carolina.....       | 289               | 42          | 41                | 18          |
| North Dakota.....         | 1,534             | 294         | 134               | 13          |
| Ohio.....                 | 17,455            | 3,360       | 2,725             | 317         |
| Oklahoma.....             | 525               | 63          | 69                | 9           |
| Oregon.....               | 4,178             | 663         | 446               | 27          |
| Pennsylvania.....         | 36,834            | 6,355       | 6,316             | 682         |
| Philippine Islands.....   | 6                 |             | 6                 |             |
| Porto Rico.....           | 229               | 20          | 194               | 24          |
| Rhode Island.....         | 6,426             | 1,054       | 1,027             | 123         |
| South Carolina.....       | 160               | 13          | 18                | 1           |
| South Dakota.....         | 893               | 159         | 71                | 14          |
| Tennessee.....            | 359               | 49          | 43                | 10          |
| Texas.....                | 45,198            | 6,553       | 1,325             | 51          |
| Utah.....                 | 1,061             | 185         | 254               | 25          |
| Vermont.....              | 2,101             | 230         | 53                | 4           |
| Virginia.....             | 1,324             | 237         | 134               | 28          |
| Virgin Islands.....       | 23                |             | 5                 |             |
| Washington.....           | 11,004            | 2,140       | 1,327             | 120         |
| West Virginia.....        | 1,582             | 273         | 482               | 76          |
| Wisconsin.....            | 7,089             | 1,369       | 720               | 57          |
| Wyoming.....              | 525               | 98          | 90                | 6           |
| Total.....                | 522,919           | 85,542      | 81,450            | 8,041       |

TABLE 6.—STATUS OF THE IMMIGRATION OF ALIENS INTO THE UNITED STATES UNDER THE PER CENTUM LIMIT ACT OF MAY 19, 1921, AS EXTENDED BY PUBLIC RESOLUTION NO. 55, SIXTY-SEVENTH CONGRESS, APPROVED MAY 11, 1922, JULY 1 TO AUGUST 31, 1923.

| Country or region of birth.          | Maximum monthly quota. | Admitted Aug. 1-31, 1923. | Annual quota. | Admitted July 1 to Aug. 31. | Balance for year. <sup>1</sup> |
|--------------------------------------|------------------------|---------------------------|---------------|-----------------------------|--------------------------------|
| Albania.....                         | 58                     | <sup>2</sup> 58           | 288           | 116                         | 141                            |
| Armenia (Russian).....               | 46                     | 21                        | 230           | 43                          | 184                            |
| Austria.....                         | 1,468                  | 1,185                     | 7,342         | 2,278                       | 5,050                          |
| Belgium.....                         | 313                    | <sup>2</sup> 313          | 1,563         | 626                         | 861                            |
| Bulgaria.....                        | 61                     | <sup>2</sup> 61           | 302           | 120                         | 177                            |
| Czechoslovakia.....                  | 2,871                  | 2,561                     | 14,357        | 4,349                       | 9,990                          |
| Danzig.....                          | 60                     | 59                        | 301           | 114                         | 186                            |
| Denmark.....                         | 1,124                  | 707                       | 5,619         | 1,222                       | 4,368                          |
| Estonia.....                         | 270                    | 54                        | 1,348         | 115                         | 1,231                          |
| Finland.....                         | 784                    | <sup>2</sup> 784          | 3,921         | 1,568                       | 2,308                          |
| Fiume.....                           | 14                     | <sup>2</sup> 14           | 71            | 28                          | 38                             |
| France.....                          | 1,146                  | 494                       | 5,729         | 959                         | 4,750                          |
| Germany.....                         | 13,521                 | 9,103                     | 67,607        | 16,583                      | 50,806                         |
| Great Britain and Ireland.....       | 15,468                 | <sup>2</sup> 15,468       | 77,342        | 30,936                      | 45,796                         |
| Greece.....                          | 613                    | <sup>2</sup> 613          | 3,063         | 1,226                       | 1,751                          |
| Hungary.....                         | 1,149                  | 910                       | 5,747         | 1,570                       | 4,145                          |
| Iceland.....                         | 15                     | 3                         | 75            | 7                           | 68                             |
| Italy.....                           | 8,411                  | 7,784                     | 42,057        | 14,716                      | 27,196                         |
| Latvia.....                          | 308                    | 277                       | 1,540         | 450                         | 1,074                          |
| Lithuania.....                       | 526                    | <sup>2</sup> 526          | 2,629         | 993                         | 1,602                          |
| Luxemburg.....                       | 19                     | 18                        | 92            | 36                          | 56                             |
| Netherlands.....                     | 721                    | <sup>2</sup> 721          | 3,607         | 1,442                       | 2,161                          |
| Norway.....                          | 2,440                  | 2,044                     | 12,202        | 4,439                       | 7,734                          |
| Poland.....                          | 6,195                  | 5,569                     | 30,977        | 9,589                       | 21,195                         |
| Portugal.....                        | 493                    | <sup>2</sup> 493          | 2,465         | 986                         | 1,380                          |
| Rumania.....                         | 1,484                  | 1,391                     | 7,419         | 2,789                       | 4,576                          |
| Russia.....                          | 4,881                  | <sup>2</sup> 4,881        | 24,405        | 9,762                       | 14,236                         |
| Spain.....                           | 182                    | <sup>2</sup> 182          | 912           | 364                         | 268                            |
| Sweden.....                          | 4,008                  | 3,955                     | 20,042        | 7,865                       | 12,155                         |
| Switzerland.....                     | 750                    | <sup>2</sup> 750          | 3,752         | 1,500                       | 2,210                          |
| Yugoslavia.....                      | 1,285                  | 568                       | 6,426         | 956                         | 5,435                          |
| Other Europe.....                    | 17                     | <sup>2</sup> 17           | 86            | 34                          | 29                             |
| Palestine.....                       | 12                     | <sup>2</sup> 12           | 57            | 24                          | 10                             |
| Syria.....                           | 177                    | <sup>2</sup> 177          | 882           | 354                         | 479                            |
| Turkey.....                          | 531                    | <sup>2</sup> 531          | 2,654         | 1,062                       | 1,413                          |
| Other Asia.....                      | 19                     | <sup>2</sup> 19           | 92            | 38                          | 29                             |
| Africa.....                          | 21                     | <sup>2</sup> 21           | 104           | 42                          | 26                             |
| Egypt.....                           | 4                      | <sup>2</sup> 4            | 18            | 8                           | 3                              |
| Atlantic Islands.....                | 24                     | <sup>2</sup> 24           | 121           | 48                          | 60                             |
| Australia.....                       | 56                     | <sup>2</sup> 56           | 279           | 112                         | 156                            |
| New Zealand and Pacific Islands..... | 16                     | <sup>2</sup> 16           | 80            | 32                          | 35                             |
| Total.....                           | 71,561                 | 62,444                    | 357,803       | 119,501                     | 235,338                        |

<sup>1</sup> After all pending cases for which quotas have been granted and admissions under the act during the current fiscal year have been deducted from the annual quota.

<sup>2</sup> Maximum monthly quota exhausted for August.

### Immigration to Canada.

THE following statistics on immigration to Canada from 1908 to 1922 are taken from the report of the Department of Immigration and Colonization for the fiscal year ended March 31, 1922:

#### IMMIGRATION TO CANADA, 1908 TO 1922, INCLUSIVE.

| Fiscal year ended Mar. 31— | From British Isles. | From United States. | From other countries. | Total.  | Fiscal year ended Mar. 31— | From British Isles. | From United States. | From other countries. | Total.  |
|----------------------------|---------------------|---------------------|-----------------------|---------|----------------------------|---------------------|---------------------|-----------------------|---------|
| 1908.....                  | 120,182             | 58,312              | 83,975                | 262,469 | 1916.....                  | 8,664               | 36,937              | 2,936                 | 48,537  |
| 1909.....                  | 52,901              | 59,832              | 34,175                | 146,908 | 1917.....                  | 8,282               | 62,389              | 5,703                 | 75,374  |
| 1910.....                  | 59,790              | 103,798             | 45,206                | 208,794 | 1918.....                  | 3,178               | 71,314              | 4,582                 | 79,074  |
| 1911.....                  | 123,013             | 121,451             | 66,620                | 311,084 | 1919.....                  | 9,914               | 40,715              | 7,073                 | 57,702  |
| 1912.....                  | 138,121             | 133,710             | 82,406                | 354,237 | 1920.....                  | 59,603              | 49,656              | 8,077                 | 117,336 |
| 1913.....                  | 150,542             | 139,009             | 112,881               | 402,432 | 1921.....                  | 74,262              | 48,059              | 26,156                | 148,477 |
| 1914.....                  | 142,622             | 107,530             | 134,726               | 384,878 | 1922.....                  | 39,020              | 29,345              | 21,634                | 89,999  |
| 1915.....                  | 43,276              | 59,779              | 41,934                | 144,789 |                            |                     |                     |                       |         |

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The decline in immigration from all countries in 1921-22, as compared with the preceding year, was 39 per cent. The decreases in the number of immigrants from different sources were as follows: From the United Kingdom, 47 per cent; from the United States, 39 per cent; and from other countries, 17 per cent. There was a reduction of 28 per cent in Chinese immigration and of 11 per cent in Japanese immigration. The following information is also taken from the above-mentioned report.

The representatives of the Dominion Department of Immigration and Colonization in Europe have continued to prevent, so far as possible, unfit persons from going to Canada. The operation and interpretation of added restrictive measures in this connection make the duties of these officials multifarious.

*Publicity work.*—The department's advertising for immigrants is carried on almost entirely outside of the Dominion. In recent years appeal has been made chiefly for farmers, farm laborers, and domestic workers. About 4,000 newspapers and farm journals in the United States were used during the year 1921-22 for the purpose of attracting settlers with experience in the agricultural methods employed in Canada and with capital enough to secure farms of their own. Further advertising, setting forth Canadian agricultural conditions and opportunities, was carried in weekly papers with rural circulations.

The following were the principal documents issued by the publicity section of the department in the year 1921-22:

|   | Number<br>of copies. |
|---|----------------------|
| Manual of Citizenship.....                              | 25, 000              |
| Eastern Canada, British edition.....                    | 47, 400              |
| Women's Work in Canada.....                             | 50, 000              |
| Canada, Where, When, and How.....                       | 100, 000             |
| Canada West, British edition.....                       | 105, 900             |
| Canada West, United States edition.....                 | 568, 500             |
| Descriptive Atlas of Canada, United States edition..... | 111, 560             |

The supplying of news and feature articles on Canadian life, illustrated lectures by agents of the department, and motion-picture exhibits were among the other governmental means employed to stimulate immigration to Canada.

*Woman's division.*—The fiscal year 1921-22 was the first in which there was a permanent staff of woman officers in the woman's division, and that year is reported as being a most satisfactory one. The division hopes, in view of its accurate knowledge of Canadian conditions, to be able to secure higher grade woman immigrants from Great Britain, more efficient aid to woman travelers, and improved arrangements for their settlement. There are three principal Canadian woman officers in Great Britain, stationed respectively at London, Liverpool, and Glasgow. The London officer has a woman assistant. These officers confer with prospective woman immigrants, give them counsel and sympathy, and often make important decisions for them. A large correspondence is conducted by these supervisors for the purpose of obtaining references, testimonials, and other data concerning applicants. These supervisors also interview and assist unaccompanied women as they are embarking for Canada and hand a list of the names of such women to the steamship conductress, calling her attention to cases requiring particular supervision or assistance.

A woman officer of the department meets the steamer when it docks at the Canadian port, interviews the steamship conductress, and learns of any special cases. The woman immigration officer then gathers together the unaccompanied women on the boat and takes them to the examination room. After the new arrivals have passed the medical and civil inspections, the woman officer again assembles her charges, arranges for the checking of their luggage, sees that they have food for their journey, adjusts any existing difficulties concerning tickets, and sees that the travelers are put on the proper train. A Government conductress is assigned to the train and goes as far as is thought necessary. Of course, every girl can not be accompanied to her final destination but her connections are looked up for her and ordinarily the conductress sends a wire to the Travelers' Aid or some social worker at the place to which the girl is going. The conductress also gives special attention to women traveling with little children.

The Canadian Council of Immigration of Women is composed of representatives from 14 national organizations and one representative appointed from each of the Provinces except Prince Edward Island. These organizations have cooperated with the woman's division in numerous ways.

There are now eight women's hostels in Canada in as many Provinces. These hostels, managed by local committees but under the supervision of the woman's division, receive Dominion Government grants and also an allowance for 24 hours' free accommodation for woman immigrants in search of positions for housework. In the western hostels free accommodation may be had for 48 hours.

Follow-up work among woman immigrants is carried on—(1) through the chaplains at the port, to whom special cases are referred upon arrival; (2) through the hostels, in cooperation with the churches and local welfare organizations; and (3) through the woman investigation officer of the Department of Immigration (headquarters at Ottawa) in connection with houseworkers.

The woman's division keeps extensive records of this work.

*Juvenile immigration.*—The supervisor of juvenile immigration states in his annual report that the progress of the movement for such immigration from the British Isles to Canada would lead to the conclusion that "as a purely voluntary and philanthropic effort on behalf of orphaned and needy children it possesses all the essential elements of a great national and economic enterprise, the value and importance of which can hardly be questioned."

The movement aims to give young immigrants a start on farms and get them interested in agriculture, thus securing the help which the Canadian farmers so greatly need. The boys are almost always located on the land while the girls are placed both in town and country.

The child immigrants are given some preliminary training and education before they leave the British Isles. Many of the older boys are instructed in light farm work and the girls are taught how to do domestic work.

This juvenile immigration receives its impetus from a number of British organizations of high standing which have expended considerable sums in establishing in Canada well-equipped receiving and distributing homes for these young immigrants, and such institutions

are the legal guardians of the children until they reach "an age of full responsibility." Furthermore, these boys and girls are subject to recurrent Government inspection until they are 19 years of age, the British Government bearing part of the expense of such inspection. According to the supervisor's report for the fiscal year ending March 31, 1922, the children, except in a strikingly few cases, were treated with kindness. During this year 1,961 children (1,361 boys and 600 girls) from 3 to 18 years of age from British training homes and schools were reported upon by the agents of the Department of Immigration and Colonization.

The total juvenile immigration through philanthropic agencies from 1868 to 1922 was 76,416.

An article in the Canadian (Labor) Congress Journal for September, 1923 (pp. 333, 334, and 351) states that figures published from time to time by medical authorities and social agencies indicate that very little care has been taken in the selection of juvenile immigrants for Canada. The same article also strongly advocates that the placing of these newcomers should be done by some governmental official with special training in this sphere, and points out the dangers of the exploitation of these young persons for their labor.

### Emigration from Italy.

THE following figures on emigration from Italy are quoted from a report from the commercial attaché at Rome for the week ending July 21, 1923:

The official statistics show a total of 62,508 emigrants from Italy during March and April, which is an increase of 17,044 as compared with January and February. Of these, 42,698 went to continental countries and 19,810 to countries overseas, these figures representing an increase of 19,487 in the case of the former and a decrease of 2,443 in the case of the latter as compared with the two previous months. Continental emigration shows a progressive increase from 10,896 in January to 12,315 in February, 21,057 in March, and 21,641 in April. In the two latter months the increase in emigration to France was especially marked, having been 18,138 in March and 18,337 in April as compared with a total of 19,702 for January and February combined. Transoceanic emigration declined in April, the total having been 8,953 as compared with 10,857 in March, 11,842 in February, and 10,771 in January. This is due to the smaller number going to Argentina, which, however, leads the list of countries, having taken 24,155 Italian emigrants from January to April, inclusive, as compared with 9,791 for the United States.

In commenting on the statistics that it publishes the commissariat of emigration calls attention to the fact that, while the figures for transoceanic emigration are compiled from the coupons taken from the emigrants' passports and from the passenger lists and may be taken as approximately correct, those for continental emigration are probably from 25 per cent to 30 per cent below the real total.

## WHAT STATE LABOR BUREAUS ARE DOING.

### Iowa.<sup>1</sup>

**F**ACTORY inspection in Iowa during the biennium ending June 30, 1922, was rather more difficult than in any previous two-year period as a result of the severe industrial depression which caused the closing down of many establishments and the reduction of personnel and part-time operation in other manufacturing plants, seriously affected shop morale and discipline, and led to the discontinuance of various safety committees.

The number of original inspections in 1920-1922 was 4,148, 58 less than in the preceding biennium, while the number of recommendations in the later period was 1,499, a decrease of 1,037 from the number for the previous two years. This large decline in recommendations was due partly to the decrease in the number of employees and machines used and partly to the fact that former inspections had resulted in the more general protection of hazardous machines in work places through the "splendid cooperation" of industrial establishments with the Iowa Bureau of Labor Statistics.

Before the end of the fiscal year 1921-22 numerous plants that had closed down altogether or were operating on part time during the depression added to their forces, frequently employing new men unfamiliar with the processes and surroundings. This fact, combined with the shifting about of machines and some changes in management, made closer inspection work necessary.

Of the 14 prosecutions during 1920-1922, 13 were for violations of the child labor laws. School-attendance officers are given credit for their help in the enforcement of these provisions, and the Iowa employers are reported, with very few exceptions, as "living up to the letter and spirit of the law."

### Massachusetts.<sup>2</sup>

**I**N JULY, 1923, the Massachusetts Department of Labor and Industries made 3,598 industrial inspections and 1,314 reinspections. Of 1,314 orders issued, 1,008 concerned labor and 306 related to the health of employees. The majority of the orders had reference to women and children. In 22 prosecutions during the month for labor law violations there were verdicts of guilty in 16 cases. All but three of the prosecutions were for violations of protective laws for women and minors. During the same months \$1,387.55 was paid in wages due employees, following the taking up of their claims by the department.

<sup>1</sup> Iowa. Bureau of Labor Statistics. Bulletin No. 8: Statistics of manufactures for year ending Dec. 31, 1921, including report of factory inspection for biennium ending June 30, 1922. Des Moines, 1922, pp. 116, 117.

<sup>2</sup> Information received from Massachusetts Department of Labor and Industries, Sept. 10, 1923.

## CURRENT NOTES OF INTEREST TO LABOR.

### Labor Agreements of Central American Countries.<sup>1</sup>

THE Central American countries—Costa Rica, Guatemala, Honduras, Nicaragua, and Salvador—held a conference in Washington in January, 1923, which resulted in a general peace treaty and the preparation of a number of important conventions by these countries. One of the agreements drawn up at this conference indorsed uniform legislation for the protection of workers. This agreement prohibits the giving of legal sanction to contracts of forced labor, the employment during school hours of children under 15 years of age who have not completed their primary school education, and the employment of children under 12 years of age in industrial work. It provides for a weekly rest day, for compulsory insurance for the workers, and for the establishment of public employment bureaus.

### Promulgation of Convention Regarding Labor and Emigration Between Italy and Brazil.<sup>2</sup>

BY AN executive decree of May 26, 1923, the President of the Brazilian Republic promulgated the convention regarding emigration and labor between Italy and Brazil, which was signed at Rome on October 8, 1921, by representatives of these countries, and was ratified in that city on March 7, 1923.<sup>3</sup>

### Creation of National Labor Council in Brazil.<sup>4</sup>

A FEDERAL decree of April 30, 1923, created a National Labor Council (*Conselho Nacional do Trabalho*) to serve as an advisory body to the Brazilian Government in matters relating to the organization of labor and social welfare.

The council is to be composed of 12 members appointed by the President, as follows: 2 workers, 2 operators, 2 officials of the Department of Agriculture, Commerce, and Industry, and 6 persons of recognized ability in labor and economic affairs. Provision is made for a secretary general, to be appointed by the President, who shall also sit with the council and attend to the secretarial duties.

The decree enumerated certain subjects to be dealt with by the new council, among them being the following: The average length of the working-day in the principal industries; systems of remuneration of labor; collective labor contracts; conciliation and arbitration; child labor; employment of women; apprenticeship and technical education; industrial accidents; social insurance; cooperative housing associations; pensions for railway employees; institutions of popular credit; and agricultural credit funds.

The duties of the secretary general are: (1) To collect printed information on the problems of Brazilian social economy; (2) to make social researches and investigations; (3) to superintend Government inspection of industrial accident insurance and of pension and housing funds; (4) to publish at regular intervals proceedings of the council and articles by private individuals on subjects of allied interest.

<sup>1</sup> Bulletin du Ministère du Travail, Paris, April-May-June, 1923, pp. 208, 209.

<sup>2</sup> Brazil. Diário Oficial, Rio de Janeiro, May 31, 1923.

<sup>3</sup> For an account of this agreement see MONTHLY LABOR REVIEW, May, 1922, pp. 217-219.

<sup>4</sup> Brazil. Diário Oficial, Rio de Janeiro, May 10, 1923.



## PUBLICATIONS RELATING TO LABOR.

### Official—United States.

ALABAMA.—*Workmen's compensation commissioner. First quadrennial report [for period ending December 31, 1922]. [Montgomery, 1923.] 240 pp.*

A summary of this report is published on pages 165 and 166 of this issue of the MONTHLY LABOR REVIEW.

COLORADO.—*Coal mine inspector. Annual report, 1922. Denver, 1923. 72 pp.*

Figures on coal-mine accidents in Colorado in 1922, taken from this report, are given on page 144 of this issue of the MONTHLY LABOR REVIEW.

GEORGIA.—*Industrial Commission. Annual report, 1922. [Atlanta?] 1923. 29 pp.*

Figures from this report are given on page 167 of this issue of the MONTHLY LABOR REVIEW.

ILLINOIS.—*General Assembly. Building Investigation Commission. Report. [Springfield, 1923.] 109 pp.*

For a summary of this report, see pages 110 to 113 of this issue of the MONTHLY LABOR REVIEW.

IOWA.—*Bureau of Labor Statistics. Statistics of manufactures for year ending December 31, 1921, including report of factory inspection for biennium ending June 30, 1922. Des Moines, 1922. 128 pp. Bulletin No. 8.*

Data from this bulletin are published on page 204 of this number of the MONTHLY LABOR REVIEW.

MINNESOTA.—*Industrial Commission. Labor laws, Minnesota. Revised to include all legislation relating to labor passed by the 1923 session of the State Legislature. [St. Paul?] 1923. 207 pp.*

— — —. *Workmen's compensation decisions. Vol. 1, 1923. St. Paul [?] 1923. 343 pp.*

This volume, published by the Industrial Commission of Minnesota, presents decisions relating to the workmen's compensation act rendered by the State supreme court from July 1, 1920, to May 31, 1923, also the most important decisions rendered by the Industrial Commission from June 1, 1921, when the law creating the commission became effective, to the same date. There are 114 cases indexed and cross-indexed so as to afford a fairly complete and accurate guide to the subject matter, while headings are given setting forth the principal points considered.

The result is a handbook of interpretation and construction of the act covering a large number of the principal questions that can be raised in connection with the administration of such a law. Though marked as volume 1, it is in practical effect a successor to Bulletin No. 17 issued by the Department of Labor and Industries in 1920, in which court decisions, opinions of the attorney general, and advice of the Department of Labor relative to the act were presented covering the history of the law up to the transfer of its administration to the State Industrial Commission.

NORTH DAKOTA.—*Workmen's Compensation Bureau. The North Dakota insurance manual: Rules and rates effective July 1, 1923. [Bismarck, 1923?] 37 pp. No. 5.*

PENNSYLVANIA.—*Insurance Department. Statistical analysis of coal-mine accidents in Pennsylvania, 1916 to 1920, inclusive. [Harrisburg, 1922?] 123 pp.*

This report was compiled jointly by the Insurance Department of Pennsylvania and the coal-mine section of the Pennsylvania Compensation Rating and Inspection Bureau. Data from it are published on pages 144 and 164 of this issue of the MONTHLY LABOR REVIEW.

UTAH.—*Industrial Commission. Report, July 1, 1920, to June 30, 1922. Salt Lake City [1923?].* 986 pp.

Figures on accidents and workmen's compensation, taken from this report, are given on pages 168 and 169 of this issue of the MONTHLY LABOR REVIEW.

WISCONSIN.—*Industrial Commission. Child labor in Wisconsin, 1917-1922. [Madison?] 1923.* 27 pp.

A summary of this report is given on pages 73 to 75 of this issue of the MONTHLY LABOR REVIEW.

UNITED STATES.—*Department of Agriculture. Organization and management of cooperative live-stock shipping associations. Washington, 1923.* 28 pp. *Farmers' Bulletin No. 1292.*

This bulletin, which supersedes Farmers' Bulletin No. 718 of the department, "represents the results of intensive study on the part of several of the representatives of the Bureau of Agricultural Economics in the field of cooperative live-stock marketing and summarizes their combined ideas as to the best method of organizing and operating a cooperative live-stock shipping association."

— *Department of Commerce. Trade association activities. Washington, 1923.* ix, 368 pp. *Elimination of waste series.*

This volume presents the results of an inquiry into the activities of trade associations which contribute to public welfare. A chapter dealing with employee relations includes a discussion of trade association activities along the lines of information and research, education, other personnel work of economic importance, safety, employment service, and collective agreements.

— *Bureau of Foreign and Domestic Commerce. Netherlands East Indies and British Malaya: A commercial and industrial handbook, by John A. Fowler. Washington, 1923.* xiv, 411 pp. *Illustrations, charts, and map. Special agents series No. 218.*

In addition to a full discussion of these territories with which the United States has a direct trade averaging \$300,000,000 annually, the book contains valuable data on the economic status of the natives, contract labor laws, wages, emigration, Chinese as merchants, etc.

— *Department of Labor. Bureau of Labor Statistics. Humanity in government, by James J. Davis, Secretary of Labor. Washington, 1923.* 39 pp. *Bulletin No. 346. Miscellaneous series.*

This bulletin was first published as a separate pamphlet by the Department of Labor and was reviewed in the July, 1923, issue of the MONTHLY LABOR REVIEW.

— *Labor legislation of 1922. Washington, 1923.* 102 pp. *Bulletin No. 330. Labor laws of the United States series.*

A summary of this report is given on page 173 of this issue of the MONTHLY LABOR REVIEW.

— *Retail prices, 1913 to December, 1922. Washington, 1923.* 224 pp. *Bulletin No. 334. Retail prices and cost of living series.*

— *Wages and hours of labor in cotton-goods manufacturing, 1922. Washington, 1923.* 27 pp. *Bulletin No. 345. Wages and hours of labor series.*

— *Wholesale prices, 1890 to 1922. Washington, 1923.* 234 pp. *Bulletin No. 335. Wholesale price series.*

A brief review of this bulletin is given on page 54 of this issue of the MONTHLY LABOR REVIEW.

— *Children's Bureau. Child labor. Outlines for study. Washington, 1923.* vi, 63 pp. *Separate No. 4, Child care and child welfare. Bureau publication No. 93. Revised edition.*

Prepared in cooperation with the Federal Board for Vocational Education. Gives outlines covering the history of the movement for the prohibition and regulation of child labor in England and the United States, together with action taken by various

international labor conferences; the present extent and distribution of child labor in the United States; the causes, social cost, and prevention of child labor; the legal status of child labor in the United States as of January, 1923; vocational education and vocational guidance in the United States; and minimum standards for children entering employment.

UNITED STATES.—*Department of Labor. Women's Bureau. What industry means to women workers, by Mary Van Kleeck. Washington, 1923. 10 pp. Bulletin No. 31.*

An address delivered at the industrial conference held in Washington by the United States Women's Bureau, January 11 to 13, 1923. A brief summary of this address was published in the MONTHLY LABOR REVIEW for February, 1923 (p. 53). In addition to the matter there discussed, the address deals with the activities of the Women's Bureau, and stresses the importance of the body of facts which it is gathering and placing before the public to be used as a basis for dealing with industrial problems relating to women.

— — — *Women in Kentucky industries: A study of hours, wages, and working conditions. Washington, 1923. vi, 114 pp. Bulletin No. 29.*

A summary of this report is given on pages 70 to 73 of this issue of the MONTHLY LABOR REVIEW.

— *Department of the Interior. Bureau of Mines. Coal-mine fatalities in the United States, 1922, by William W. Adams. Washington, 1923. vi, 97 pp. Technical paper 339.*

This report is summarized on pages 140 and 141 of this issue of the MONTHLY LABOR REVIEW.

— — — *Production of explosives in the United States during the calendar year 1922, with notes on mine accidents due to explosives, by William W. Adams. Washington, 1923. 25 pp. Technical paper 340.*

Information on mine fatalities due to explosives, taken from this paper, is published on page 142 of this issue of the MONTHLY LABOR REVIEW.

— *Navy Department. Schedule of wages for civil employees under the Naval Establishment, within continental limits of the United States and Pearl Harbor, Hawaii. Washington, 1923. 24 pp. Revised to July 16, 1923.*

Wages of certain classes of employees, in selected localities, taken from this report, are published on pages 62 to 64 of this issue of the MONTHLY LABOR REVIEW.

### Official—Foreign Countries.

AUSTRALIA (NEW SOUTH WALES).—*Department of Labor and Industry. Technical commission on prevalence of miners' phthisis and pneumoconiosis in the metalliferous mines at Broken Hill. Report, Sydney, 1921. 75 pp. Illus.*

— — — *Further reports. Sydney, 1922. 9 pp.*

The two reports listed above give an account of the work of the commission which was appointed in 1919 to investigate the state of health of the workers employed in or about the mines at Broken Hill, New South Wales. A full examination was made of the health of 6,538 mine workers, as a result of which it was found that pneumoconiosis, tuberculosis, and lead poisoning were all present among the miners, arising from the nature of their work.

The commission finds that the condition of pneumoconiosis arises in Broken Hill as a result of the inhalation of dust among those persons who have been engaged in the operations of drilling and blasting underground. \* \* \*

The commission is led to conclude that it is the dust that accompanies mining operations which passes into the lungs and occasions pneumoconiosis, on which tuberculosis may supervene later. The commission has been able to obtain post-mortem a number of specimens from lungs of miners who had worked for years at Broken Hill. In the ash of these lungs the presence of lead, manganese, and silica has been detected by chemical analysis.

To meet the situation the commission recommends the exclusion from employment about the mines in any capacity of all those suffering from tuberculosis; the exclusion of all those suffering from pneumoconiosis from employment along the line of the lode, whether above or below ground; the removal of susceptible persons from exposure to the action of lead; and the adoption of various methods to lessen the amount of dust in the air breathed by the underground workers.

AUSTRALIA (SOUTH AUSTRALIA).—[Statistical Department.] *Statistical register, 1921-22. Pt. V.—Production. (Section 1.—Prefatory report.)* Adelaide, 1923. xxxi pp.

Gives data concerning production and allied subjects in agriculture, manufacturing, and mineral output. In the year 1921-22, as compared with 1915, manufactures showed an increase in number of hands employed, exclusive of working proprietors, of 23.3 per cent, while expenditures for material increased by 61.6 per cent, for fuel, etc., by 99.8 per cent, and for salaries and wages, by 96.4 per cent. As compared with 1914 the average earnings of male workers in 1921-22 showed an increase of 54.7 per cent, while for female workers they had increased by 77 per cent.

CANADA.—Bureau of Statistics. *Internal Trade Branch. Prices and price indexes, 1918-1922.* Ottawa, 1923. 149 pp.

A summary of this report is published on pages 56 to 58 of this issue of the MONTHLY LABOR REVIEW.

— *Department of Immigration and Colonization. Report for the fiscal year ended March 31, 1922.* Ottawa, 1922. 65 pp.

Extracts from this report are published on pages 200 to 203 of this issue of the MONTHLY LABOR REVIEW.

— (MANITOBA).—*Workmen's Compensation Board. Report for the year 1922.* [Winnipeg, 1923.] 31 pp.

This report is summarized on pages 169 and 170 of this number of the MONTHLY LABOR REVIEW.

DENMARK. — *Arbejdsdirektørens. Indberetning til Indenrigsministeriet (vedrørende Arbejdsløshedsforsikringen og Arbejdsløshedsfonden) for Regnskabsaaret 1921-22 (fra 1. April 1921 til 31. Marts 1922).* Copenhagen, 1923. 83 pp.

Report of the director of labor to the Ministry of the Interior on unemployment insurance and the operation of the central unemployment fund for the fiscal year April 1, 1921, to March 31, 1922. At the close of the year there were 66 recognized unemployment insurance funds with a membership (entitled to benefits) of 262,473, as against 65 funds with a membership of 283,557 at the end of the previous fiscal year.

— *Statistiske Departement. Husleje og Boligforhold, November, 1922.* Copenhagen, 1923. 111 pp. *Danmarks Statistik. Statistiske Meddelelser. 4. Række, 68. Bind, 1. Hæfte.*

In November of each year since 1919 Denmark has investigated house rents in the capital and other cities and towns and in at least 100 rural communes. The above report on house rents and housing conditions is for November, 1922.

GREAT BRITAIN.—*Department of Overseas Trade. Report on the economic, financial, and industrial conditions of the United States of America in 1922, by J. Joyce Broderick.* London, 1923. 206 pp.

— [Home Office.] *Committee on industrial paints. Report.* London, 1923. 66 pp.

A notice of this report, based on a summary in the British Ministry of Labor Gazette for April, 1923, was published in the MONTHLY LABOR REVIEW for June, 1923 (pp. 211, 212).

— — — [Factory Department.] *Annual report for the year 1922.* London, 1923. 153 pp. *Cmd. 1920.*

Contains reports on safety, dangerous trades, sanitation, employment, welfare work and wages, reports of the medical, engineering, and electrical inspectors, and discussions of investigations into the dust content of the atmosphere of work places,

the physiological costs of different methods of weight carrying by women, and dangers in connection with repairs on oil-carrying and fuel ships; also a number of statistical tables bearing on the work of the factory inspection staff. Discussion of the sections dealing with hours, the two-shift system for women, and methods of weight carrying, and of the report of the chief medical inspector will be found on pages 65, 75, and 147 of this issue of the MONTHLY LABOR REVIEW.

NORWAY.—*Hovedstyret for Statsbanene. Beretning for året 1 Juli 1921–30 Juni 1922. Christiania, 1923. 68\*, 254 pp. Norges Offisielle Statistikk. VII. 80.*

Report on Norwegian railroads for the fiscal year July 1, 1921, to June 30, 1922. Contains information on the Norwegian State railway pension fund and on the railway school.

— *Statistiske Centralbyrå. Lønninger, 1922. Christiania, 1923. 8\*, 29 pp. Norges Offisielle Statistikk. VII. 82.*

Annual report of the Central Statistical Bureau on wages in Norway. A table showing wages in specified occupations in Norway, September, 1921, and November, 1922, is given on page 67 of this issue of the MONTHLY LABOR REVIEW.

— *Statistik årbok for kongeriket Norge. 42de årgang, 1922. Christiania, 1923. [29] 281 pp.*

Statistical yearbook for Norway for 1922. Contains information of interest to labor on social insurance, employment, and unemployment, trade-unions, the Norwegian employers' association, wages, labor disputes, changes in cost of living, average retail prices of various commodities, and housing.

SCOTLAND.—*Board of Health. Annual report, 1922. Edinburgh, 1923. 206 pp. Cmd. 1887.*

Reviews the work of the year 1922 under the headings of sanitation, medical and allied services, national health insurance, housing and town planning, poor law and public assistance, and miscellaneous. An account of the housing situation, as here presented, is given on page 118 of this issue of the MONTHLY LABOR REVIEW.

SPAIN.—*Consejo Superior de Emigración. Avance estadístico de la migración española en el primer semestre de 1923. [Madrid] 1923. 7 pp.*

These advance statistics of immigration and emigration for the first six months of 1923 show that during this period 32,032 emigrants left Spain, an increase of 13,549 over the number emigrating during the same period in 1922. The largest number (14,868, or 46.4 per cent) went to Argentina, while 14,372, or 44.9 per cent, went to Cuba. The corresponding figures for 1922 were 11,344 for Argentina, and 4,882 for Cuba.

SWEDEN.—*Socialstyrelsen. Arbetsinställelser i Sverige år 1922. Stockholm, 1923. viii, 61 pp. Sveriges Officiella Statistik. Socialstatistik.*

Report by the Swedish Labor Bureau (*Socialstyrelsen*) on labor disputes in Sweden in 1922. A brief review of the report is given on page 180 of this issue of the MONTHLY LABOR REVIEW.

SWITZERLAND.—*Eidgenössisches Volkswirtschaftsdepartement. Berichte der Kantonsregierungen über den Vollzug des Bundesgesetzes betreffend die Arbeit in den Fabriken 1921 und 1922. Aarau, 1923. 127 pp.*

This publication of the Swiss Federal Economic Department contains the reports of the various cantonal governments on the enforcement in 1921 and 1922 of the Federal law regulating labor in factories. Each of the 25 cantonal governments makes a separate report.



## Unofficial.

BOGART, ERNEST LUDLOW. *An economic history of the United States*. New York, Longmans, Green & Co., 1923. xiv, 593 pp.

This is the fourth revision of this history which first appeared in 1907. It has been rewritten, taking into consideration recent economic changes, particularly those resulting from the war, and has a new section on the mining industries.

CARNEGIE ENDOWMENT FOR INTERNATIONAL PEACE. *Division of Economics and History. The British coal-mining industry during the war*, by Sir. R. A. S. Redmayne. Oxford, Clarendon Press, 1923. xvi, 348, 10 pp.

The author, who was officially connected with the Government program of regulation and finally of control of the mines during the war, undertakes to give a historical outline of events in the industry from the outbreak of the war up to the final decontrol in 1921. His intention is to be an impartial narrator of facts, and as a result, he has furnished a convenient summary of events, without much discussion of the basic problems of the industry.

Government regulation began with the appointment, early in 1915, of a "coal-mining organization committee," the immediate cause of its creation being the falling off in production consequent on the enthusiastic response of the miners to the call for volunteers. "It is estimated that 40 per cent of the miners of military age were absorbed into military service, and by far the greater number left the mines in the early weeks of the war; that is, in the autumn of 1914. It goes without saying that this exodus was immediately reflected in a grave reduction of the productive capacity of the mines."

The primary purpose of the committee was so to organize the industry as to secure the necessary supply of coal, while at the same time permitting the enlistment, or later, the conscription, of as many men as could be spared, but in practice this program was found to have innumerable ramifications. Good production involved keeping the mines in good shape, and this meant keeping up, under war difficulties, supplies ranging from pit timbers down to candles for mines where open flames could be used, feed for the pit ponies, and oils for lubricating purposes. Transportation had to be secured for the coal when mined, and as the demand grew greater, it had to be allotted between war industries, private industries, and private consumers. Economies in the use of coal had to be taught and enforced, and finally, in order to preserve industrial peace and maintain production, regulation of prices, wages, and profits was called for. When it became evident that this last step was necessary, the Government dropped the claim of regulation and took over control. The author's discussion of this step, its results and possible alternatives, forms one of the most interesting features of the book, more especially as he himself greatly dislikes Government control of any industry, yet considers that under the circumstances it was almost unavoidable.

A final section gives a general survey of the industry from 1914 to the settlement of the strike of 1921, and 13 appendices contain the text of various agreements and acts concerning the industry, forms in use during the period of Government control, with data as to output and value of coal, average price, and increases in coal miners' wages from the beginning of the war up to August, 1917.

CHASE NATIONAL BANK OF THE CITY OF NEW YORK. *Agricultural credits and cooperative marketing*, by Benjamin M. Anderson. New York, 1923. 35 pp. *Chase Economic Bulletin*, vol. 3, No. 3.

Reprint of an address delivered before the Montana Bankers' Association, Great Falls, Mont., August 10, 1923. A general discussion of the conditions in agriculture and the "basic cause of the farmers' troubles," together with the speaker's opinions as to the efficacy of cooperative marketing associations in remedying these troubles.

COMMISSION SYNDICALE DE BELGIQUE. *Le Mouvement syndical international, par Corn. Mertens. Brussels, Imprimerie Coopérative Lucifer, 1923. 107 pp. Les "Cahiers" de la Commission Syndicale, No. 3.*

This is a history of the international trade-union movement from 1901 to the present time. Documents relating to the action of the International Federation of Trade-Unions on various international questions since its reorganization in Amsterdam in 1919 are included.

DOUGLAS, PAUL H., AND OTHERS. *The worker in modern economic society. Chicago, University of Chicago Press, 1923. 929 pp.*

This volume, which is made up of selected readings on labor problems, aims to cover the various aspects of the present industrial situation and at the same time bring together the different subjects in such a way that they present a fairly complete survey of economic conditions as they affect labor.

DURAND, PAUL. *Les organismes sociaux officiels en France. Paris, Action Populaire, 1923. 84 pp. Les Archives du Manuel Social. L'état et le problème social III.*

In this volume the various official organizations in France which deal with social affairs are described. The plan of organization of the different offices, bureaus, and commissions dealing with labor matters, hygiene, and education is given in detail, together with the date of formation of each of these branches of the different ministries, their location, and the scope of their activities.

GENERAL FEDERATION OF TRADE UNIONS (GREAT BRITAIN). *Annual report, 1923. London [1923]. 35 pp.*

The membership of the federation, it is shown, has continued to decrease, there being a loss of 315,503 during the year ending March 31, 1923. The high point was reached in 1921, when the total membership was 1,583,058. More than half a million members have been lost since then, but, nevertheless, the federation still enrolls 1,056,131, as against 967,257 in 1914, so that the war gains have not been wholly lost. Two causes are assigned for the falling off: "The increasing poverty of men and women both in respect of employment and returns from employment, and the increased absorption by the State of functions at one time almost wholly performed by the trade-unions and friendly societies."

The report discusses the outlook concerning unemployment, urging the need of training both in trade problems and straight thinking as the only solution for the difficult situation now existing.

JOHNS HOPKINS UNIVERSITY. *The shop committee in the United States, by Carroll E. French. Baltimore, Johns Hopkins Press, 1923. 109 pp. Studies in historical and political science, series 41, No. 2.*

The author gives an account of the origin and growth of the shop committee in the United States, dealing particularly with the period of the war when the shop committee began to be a factor in the industrial situation. The various types of plans are described, the results of their operation are analyzed, and in the final chapter the attitude of trade-unionists toward the shop committee system is discussed.

LABOR COPARTNERSHIP ASSOCIATION. *Report, 1922. London, 6 Bloomsbury Square, W. C. 1, 1923. 16 pp.*

The object of the Labor Copartnership Association is "to bring about an organization of industry based on the principle of labor copartnership; that is to say, a system in which all those engaged shall share in the profits, capital, control, and responsibility. With this view it seeks (1) in the cooperative movement to aid by its propaganda and advice all forms of production based on the above principles; (2) in other businesses to induce employers and employed to adopt schemes of profit sharing and investment tending in the same direction."

A table contained in the report shows that during the year 1922, 26 gas companies in Great Britain in which profit-sharing plans are in effect divided among their

29,111 workers £164,644 (\$801,240, par). The sums so distributed varied in the different companies from  $1\frac{1}{2}$  to  $7\frac{1}{4}$  per cent of the wages paid. These profit-sharing schemes have been in effect for varying lengths of time, ranging from 9 to 33 years. During the time the plans have been in operation a total of £1,805,431 (\$8,786,130, par) has been distributed in bonuses. Shares held in the companies by their employees amounted on December 31, 1922, to £1,437,601 (\$6,996,085, par).

MACASSEY, LYNDEN. *Labor policy—false and true. A study in economic history and industrial economics.* London, Thornton Butterworth (Ltd.), 1922. 320 pp.

A critical study of the policy of the British Labor Party is made by the author, based upon his experience as an engineer and as a manager for the Government of various war-time enterprises. The book is divided into three parts: First, a consideration of the program of the labor party for a solution of the labor problem; second, the Government's labor policy so far as it has been declared or evidenced in departmental practice; and the third part presents the writer's conclusions as to the solution of the question which is best calculated to promote the interests of the nation.

NATIONAL BUREAU OF ECONOMIC RESEARCH (INC.). *Employment, hours, and earnings in prosperity and depression, United States, 1920-1922*, by Willford Isbell King. New York, 1923. 147 pp. Publication No. 5.

The conditions of industrial employees during a period of severe depression and during a period of prosperity are shown in this study, which was made at the request of the committee on unemployment and business cycles of the President's Conference on Unemployment. The information was gathered mainly by means of questionnaires, and it appears from the replies, from which estimates were made covering the entire industrial population, that the business cycle of 1920-1922 caused but few members of the families of farmers and other employers to shift from one industry to another. The total number of persons employed diminished about one-seventh between the third quarter of 1920 and the same period in 1921, and enterprises having over 100 employees each were responsible for three-fourths of all lay-offs, although they employed only half of the employees then at work. Part-time work was used as a palliative by relatively few employers, and the total number of employee-hours worked diminished by about one-sixth between the boom of 1920 and the depression of 1921. The longest average full-time hours per week in 1922 were 56.7 in domestic and personal service, and the shortest 42.9, in building and construction. The average earnings in 1920 of employees in plants having more than 100 workers was \$1,544, while in 1921, because of unemployment, the average earnings had fallen to \$1,112. Employees in enterprises having fewer than 21 employees earned on an average \$1,121 in 1920 and \$1,077 in 1921. The total amount of salaries and wages in 1921 was approximately \$32,596,000,000.



